

POWDER RIVER COUNTY FIRE PLAN

***A COLLABORATIVE
APPROACH FOR REDUCING
WILDLAND FIRE RISKS***



2004

BOARD OF COUNTY COMMISSIONERS

POWDER RIVER COUNTY
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Broadus, Montana 59317

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Ray Traub, Broadus
Betty Aye, Broadus
Nancy Espy, Broadus

RESOLUTION 2004-31

Resolution to Adopt County Wildfire Protection Plan

WHEREAS, Powder River County applied for and received a \$25,000 Montana Department of Commerce Community Planning Grant to complete a Community Fire Plan for Powder River County, and

WHEREAS, Powder River County and the Broadus Volunteer Fire Department, with support from the Ashland Ranger District, Custer National Forest, established a plan which addresses opportunities to reduce the immediate and long-term risk from wildfire, and

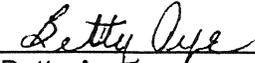
WHEREAS, the fire plan is the first step in identifying hazard areas, establishing locations for infrastructure, seeking opportunities for fuel reduction projects, enhancing communication and coordination and educating the public on fire issues,

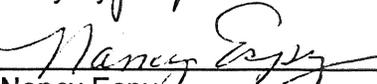
NOW THEREFORE BE IT RESOLVED that this plan entitled "Powder River County Wildfire Protection Plan, A collaborative Approach for Reducing Wildland Fire Risks", dated 2004, is hereby accepted and adopted by the Board of County Commissioners of Powder River County.

Dated this 6th day of December, 2004.

BOARD OF COUNTY COMMISSIONERS
POWDER RIVER COUNTY


Ray Traub, Chairman


Betty Aye


Nancy Espy

Attest: 
Clerk of the Board

**POWDER RIVER COUNTY
FIRE PLAN**

**PREPARED BY THE BROADUS VOLUNTEER FIRE DEPARTMENT
AND RESIDENTS OF THE COMMUNITY**



WITH THE COOPERATION OF THE FOLLOWING AGENCIES:

**MONTANA DEPARTMENT OF COMMERCE
U.S. FOREST SERVICE
BUREAU OF LAND MANAGEMENT
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
POWDER RIVER COUNTY COMMISSIONERS**



**SINCERE APPRECIATION AND GRATITUDE IS GIVEN TO THESE AGENCIES
FOR THE OPPORTUNITY AND SUCCESS OF THIS PROJECT**

REFERENCES:

**National Firewise Communities Project
Powder River County Land Use Plan
Powder River County Emergency Operations Plan**

POWDER RIVER COUNTY

FIRE PLAN

Broadus/Powder River County Volunteer Fire Department

Don McDowell, Fire Warden

Joe Cathey, Fire Chief

Carey Trumps

Kurt Copps

Raymond Rolfson

Raymond Ragsdale

Bill Gorder

J.J. McDowell

Rich Biesheuvel

Hugh Fulton

James Gorder

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United States Forest Service

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Powder River County Commissioners

Project Coordinator

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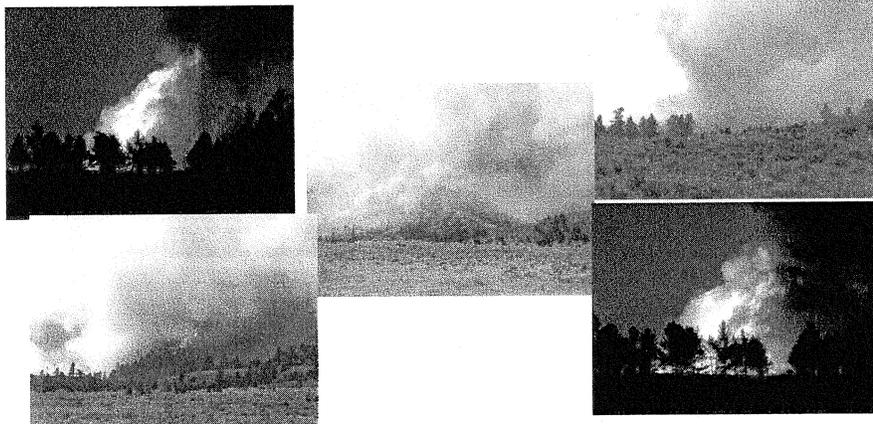


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A. SUMMARY

In the spring of 2002, Powder River County with the Broadus Volunteer Fire Department and support from the Ashland Ranger District, Custer National Forest, applied for a \$25,000 Montana Department of Commerce Community Planning Grant. The purpose of the grant was to complete a Community Fire Plan in Powder River County which would address opportunities to reduce the immediate and long-term risk from wildfire. As such, this Fire Plan is the first step in identifying hazard areas, establishing locations for infrastructure, seeking opportunities for fuel reduction projects, enhancing communication and coordination and educating the public on fire issues. Specifically, outcomes to be accomplished through the project include:

- ▶ Improved coordination and communication between all agencies with fire responsibilities
- ▶ Development of a Community Fire Planning Document with GIS maps
- ▶ Firewise/Fuel Risk Assessments
- ▶ Identification of high fire risk areas and priority fuels reduction projects
- ▶ Identification of needed infrastructure such as dry wells and equipment
- ▶ Local fire web page
- ▶ Community information and awareness through Firewise educational efforts

This Fire Plan is intended to meet the objectives of “A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Plan” as well as the community planning requirements called for in the Healthy Forest Restoration Act (HFRA). The Fire Plan is a coordinated approach with representatives from local government, the volunteer fire department and state and federal agencies. The plan has involved cooperative efforts in identifying needs, building upon established assets and initiating high priority projects to reduce fire hazards.

Portions of Powder River County were listed in the August 17, 2001 Federal Register Notice for Urban Wildland Interface Communities Within the Vicinity of Federal Lands That are At Risk From Wildfires. However Wildland Urban Interface (WUI) areas are further designated through this plan as well as areas of high risk of wildland fires and prioritized project areas for vegetation treatment on federal land and adjacent non-federal lands.

Community Wildfire Plan has been defined through HFRA as a plan for an “at-risk community” that is developed within the context of the collaborative agreements and the guidance established by the Wild-Land Fire Leadership Council and agreed to by the applicable local government, local fire department and State agency responsible for forest management in consultation with interested parties and the federal land management agencies managing land in the vicinity of the at-risk community. Furthermore, these plans should identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment on federal and non-federal land that will protect one or more at-risk communities and essential infrastructure and recommends measures to reduce structural ignitability throughout the at-risk community.

B. STATEMENT OF PURPOSE

The purpose of this document is to design a fire management planning process and plan which will:

- Improve Prevention and Suppression***
 - ✓ Identify roles and responsibilities of participating Federal, State, and County agencies.
 - ✓ Enhance the level of coordination between the Powder River County Volunteer Fire Department and cooperating partners.
 - ✓ Identify effective fire suppression strategies, prevention needs, and evacuation plans for wildland fires in and around the wildland/urban interface.
 - ✓ Enhance levels of fire protection provided to Powder River County.

- Reduce Hazardous Fuels/Restore Fire Adapted Ecosystems***
 - ✓ Identify and rate the risk of a significant wildland/urban interface fire in Powder River County.
 - ✓ Identify strategies and location for fuel treatments which will mitigate or reduce the risk to the homes and businesses during a wildland/urban interface fire.
 - ✓ Development and implementation of planning requirements to reduce fire hazards within the wildland interface - particularly with anticipated “boom” growth from Coal Bed Methane (CBM) and coal development.
 - ✓ Perform site assessments of local residences and evaluations of fire hazards.

- Promote Community Education and Assistance***
 - ✓ Identify structural protection weaknesses and propose solutions.
 - ✓ Focus fire agency response activities on the safety of the public and fire fighters during all emergency incidents.
 - ✓ Develop and implement a local fire web page that will provide information on weather, lightening strikes, fire activity, etc. and also provide education updates and “firewise” information.

- ✓ Develop notification and evacuation procedures for wildfires or other catastrophic events.

C. OBJECTIVES

The objectives of the project are to develop a fire management plan which will:

- ✓ Develop a community fire planning document and GIS map.
- ✓ Improve coordination and communication between all agencies with fire suppression responsibilities.
- ✓ Improve community information services and awareness through education.
- ✓ Identify areas of high fire risk and implement coordinated fuel reduction projects.
- ✓ Identify needed infrastructure and equipment such as key dry well sites.
- ✓ Develop a local fire web page.

D. PLANNING AREA DESCRIPTION AND OWNERSHIP

Powder River County is a large, rural county located in southeastern Montana. The County consists of 3,297 square miles, 1,858 people and ranges in elevation from 2,800 feet to 4,400 feet above sea level. The county seat is located in the town of Broadus which consists of 451 people and several outlying smaller communities. The County includes 2,102,400 acres with State, BLM and National Forest lands accounting for 743,000 acres. The western third of the county is located in and along the Ashland Ranger District of the Custer National Forest. This interface includes interspersed grassland and timber; of which there are areas with very high fuel loads. The eastern half of the county, which makes up two-thirds of the planning area, is primarily rolling hills and grasslands. The county is located within a drier region of the state with precipitation averaging between 12 to 14 inches annually mostly in the form of snow. The county is bisected by two rivers, the Powder River and the Little Powder River as well as a few perennial creeks that run primarily in the spring from winter snow melt.

Powder River County, which includes fully three fourths of the Ashland Ranger District, experienced devastating fires in 2000 that consumed over 70,000 acres. Since that time the County has had four project fires where Type II Teams were needed and a host of smaller Type III fires that were managed by County Assistance Teams.

The primary industry in Powder River County is agriculture. Mill values have decreased significantly since the exploration of oil in the 1960's and 1970's. At that time the mill value was approximately \$76,000.00. Today, the mill value is approximately \$3,983.81. Agriculture now provides the primary tax revenue to support the county but drought conditions, fluctuating

livestock prices and increased costs in this traditional industry have forced many to move on. Powder River County has continued to see a decrease in population with an 11% decrease from 1990 to 2000. Per capita income in Powder River County is approximately \$27,000.00 which places the county at number 34 of 56 counties for medium household incomes in Montana.

The area draws large numbers of hunters from all over the country due to the abundance of game birds, deer, antelope, and elk. Many local individuals and businesses depend upon spring and fall hunting to supplement their incomes. Several livestock operators in the county are also dependent upon federal lands for grazing. The Ashland Ranger District has one of the largest grazing programs on National Forest System Lands, a small timber program and recreational opportunities for quality spring and fall hunting.

E. VOLUNTEER FIRE DEPARTMENTS

On July 21, 1922 the Broadus Volunteer Fire Department was created by concerned and active volunteers of the county. However, in order to ensure existence the county was soon involved to provide additional financial stability and the Broadus/Powder River County Volunteer Fire Department (hereinafter referred to as PRCVFD) became a cooperative effort between the town and county. This same department has remained operational for 81 years through the help and guidance of generations of dedicated volunteers. The department has 18 active, volunteer firefighters that also provide support to 3 fire districts, the Bureau of Land Management (hereinafter referred to as BLM), and the Department of Natural Resources and Conservation (hereinafter referred to as DNRC). The fire department is responsible for initial fire suppression of residential areas, agricultural and government lands, and businesses for approximately 3,297 square miles.

Powder River County consists of the larger PRCVFD as well as 3 fire districts in Biddle, Belle Creek, and Ashland. Each department is commanded by its own fire chief with one fire warden for the entire county. A fire hall is located in Broadus, Biddle, Belle Creek, and Ashland.

Members of these fire departments are unpaid volunteers that live within the boundaries of Powder River County. Some volunteers work in the vicinity of their department while others work either in Broadus or the surrounding area. Very few live and work within the town boundaries of Biddle and Belle Creek making acceptable response times in those areas difficult.

At this time there are 18 active volunteer fire fighters in the PRCVFD, 6 active volunteer members in the Biddle fire district, 24 active volunteer members in the Belle Creek Fire District, and 10 active volunteer members in the Ashland Fire District.

Apparatus is located as follows:

Powder River County Volunteer Fire Dept.

- ▶ 1970 C-20 Chevrolet ¾ ton truck
 - ▶ 1975 F-250 Ford ¾ ton truck
 - ▶ 1979 Dodge 1 ton truck
- } These
} engines

- ▶ 1992 K3500 Fast Attack } are
- ▶ 1992 F-350 Ford Fast Attack } Type VI
- ▶ 3 DNRC vehicles } Engines
- ▶ 1 Civil defense vehicle }
- ▶ 1980 Dodge W-450
- ▶ T-12 1500 gallon tender & rural structure
- ▶ T-15 1000 gallon tender
- ▶ 2 four-wheelers, 1 LEPC van, 1 rescue vehicle

Biddle Fire District

- ▶ 3 - oilfield and grass fire pumper units ** A complete listing of equipment
- ▶ oilfield and grass fire pumper unit at Biddle for this dept. was unavailable.

Belle Creek Fire District

- ▶ 1970 Chevy 3/4 ton 250 } Type
- ▶ 1977 ford F-250 } VI
- ▶ 1970 Dodge 1 ton 250 } Engines
- ▶ 1997 Chevy 3/4 ton 250 }
- ▶ 1978 Ford F 650 } Type III Tender

Ashland Fire District

**Information on apparatus in this district was unavailable at the time of this report.

F. WILDLAND/URBAN INTERFACE

Powder River County has experienced a substantial increase in wildland fires over the past twenty years. Of particular concern is the increase in Condition Class 2 (fire regimes which have moderate departure from historic ranges resulting in a moderate change to fire size, frequency, intensity or severity) and Condition Class 3 (fire regimes which have significant departure from historic ranges resulting in dramatic changes to fire size, frequency, intensity or severity).

While some areas of Powder River County were identified as At-Risk Communities in the January 4, 2001 Federal Register notice, Wildland Urban Interface Communities Within the Vicinity of Federal Lands That are at High Risk From Wildfire, other areas were not identified at that time. These communities fit the Healthy Forest Restoration Act definition of an At-Risk Community as “a group of homes and other structures with basic infrastructure and services within or adjacent to Federal land *and* in which conditions are conducive to a large-scale wildland fire disturbance event *and* for which a significant threat to human life or property exists as a result of a wildland fire disturbance event. Consequently, for the purposes of this fire planning project, all private land within or adjacent to the Ashland Ranger District, Custer National Forest is considered wildland urban interface or WUI for Powder River County. WUI’s are also identified as areas adjacent to lands managed by the BLM although most of these are scattered, smaller units that do not have the extent of forested vegetation. WUI’s for Powder River County are identified on Map 1.

CHAPTER II. AGENCY ROLES AND RESPONSIBILITIES

- A. PRIMARY AGENCIES/AREAS INVOLVED
- B. COUNTY FIRE SUPPRESSION EFFORTS
- C. WILDLAND AND STRUCTURAL FIRE PROTECTION EFFORTS
- D. COMMUNICATIONS CONTACT LIST

A. PRIMARY AGENCIES/AREAS INVOLVED

Structure fire protection is provided by:

- » Powder River County Volunteer Fire Department

Wildland fire protection is provided by:

- » PRCVFD
- » Biddle Fire District
- » Belle Creek Fire District
- » Ashland Fire District
- » DNRC
- » BLM/FS

Medical care is provided by:

- » Jesse Ambulance Service
- » Powder River Medical Clinic

Powder River County

Powder River County's geographic boundaries are widespread and encompass private, state, BLM and United States Forest Service (USFS) lands. The PRCVFD is responsible for structure and wildland fire suppression on private and state lands. The fire department is responsible for initial attack on private and state lands for the first 24 hours through a mutual aid agreement with the DNRC. After the initial 24 hour period, the DNRC provides support as needed by the County's request.

Powder River County Sheriff's Office

The Sheriff is responsible for all law enforcement activities including notification and coordination of evacuations.

Department of Natural Resources & Conservation (DNRC)

When requested by the county, DNRC provides wildland fire protection for state lands that are within Powder River County and private lands in which assistance is requested. DNRC is not responsible for structural firefighting.

Bureau of Land Management (BLM)

The BLM, Miles City Field Office has land throughout Powder River County in small scattered

tracts. Through a State wide agreement with the Forest Service and the DNRC, BLM is responsible for fire suppression on all federal lands in eastern Montana – including the Ashland Ranger District. Conversely, Forest Service units have suppression responsibilities for BLM land in western Montana. Regardless of the jurisdiction, suppression responsibilities are extended .5 miles off federal lands or where fire poses a threat to federal land and where assistance is requested.

United States Forest Service (USFS)

The Ashland Ranger District is the jurisdictional agency with the majority of the suppression needs in eastern Montana. The District hosts BLM fire crews out of the Fort Howes fire facility during the fire season and also provides crews and individual resources for initial attack support. All crews work through Miles City Fire Dispatch in Miles City. The Ashland Ranger District is responsible for all fuels treatment (mechanical, prescribed fire, etc) including planning and implementation on the District.

County Disaster and Emergency Services (DES)

The county Disaster & Emergency Services (DES) office is responsible for ensuring that the counties meet State and Federal emergency management requirements. This primarily involves planning, resource tracking, readiness evaluation, response coordination, and recovery operations. Powder River County has an Emergency Operations Plan that spells out preparedness and response actions for emergencies and disasters declared by the county commissioners in the county.

Although every wildland fire is technically an emergency, the county does not officially declare them an emergency in most cases. An emergency declaration is potentially warranted in fire situations where multiple homes are under immediate threat of destruction, and where the ability of local fire suppression forces to handle the fire is inadequate. Such a situation would occur with a large scale fire in the wildland/urban interface area of Powder River County.

If an emergency declaration is issued, the responsible DES official serves as conduit to the incident for resources ordered through the State DES system. However, for wildland fires all resources are ordered through the Incident Command System. Other duties and responsibilities of the DES Coordinators include keeping local elected officials informed, establishing and managing the County Emergency Operations Center, sheltering evacuees and dealing with recovery issues.

Other Mutual Aid Agreements

Powder River County currently has mutual aid for fire suppression with the following adjoining counties and written mutual aid agreements with the listed agencies:

Carter County	Sheridan County, Wyoming
Custer County	Bighorn County, Wyoming
Rosebud County	BLM
Campbell County, Wyoming	DNRC

American Red Cross

This non-profit organization is responsible for setting up shelters, food and clothing for the public that may be affected by a disaster. The County Commissioners request assistance from the Red Cross and DES will coordinate efforts. DES can initiate volunteer responders 24 hours a day, seven days a week by calling 406-442-0260 or toll free, 877-246-4063. The Red Cross provides mass care, shelter management, ground damage assessment, family services and feeding, including feeding first responders and victims on site with an Emergency Response Vehicle. Depending on the incident, aerial damage assessment may be available through Civil Air Patrol aircraft. Shelters are set up in churches and schools for disaster victims. The Red Cross provides immediate food, shelter and clothing for victims of such events as single or multi-family home fires.

B. COUNTY FIRE SUPPRESSION EFFORTS

Provide Close Coordination

DNRC land offices will continue to develop close cooperation and coordination with the counties to ensure an early and even flow of intelligence on fire conditions. The success of any limited action support program lies in early assistance by the state to reduce the need for maximum efforts later.

The following are areas where close coordination between the county and state is necessary:

- a. The ignition of fires should be reported by the county to the DNRC land office if they consist of multiple starts that could feasibly overwhelm the county forces, or should be reported if single fires are still burning uncontrolled 24 hours after attack by the county.
- b. The ignition of any wildfire in a high hazard or high value area that has the potential of developing into a serious fire situation should be reported by the county to the local land office. The seriousness of a fire situation in these areas may be dependent upon a variety of factors that are existing at the time of the fire occurrence: weather conditions, prior commitment of county forces, or suppression for capability.
- c. The ignition or spread of a wildfire onto state classified forest ownership which has the potential for high resource loss should be reported.

Monitor Local Fire Conditions

The DNRC land office should closely monitor county fire suppression actions any time a fire situation has been reported by the cooperator. This monitoring should be geared to the type of situation and the degree of hazard. The land office should monitor by checking periodically with the County Fire Warden via phone or by a personal visit to his office or fire location.

Suppression Assistance in Circumstances Beyond the County Capabilities

DNRC assistance will consist of whatever personnel and equipment is required by the fire

incident commander to control the fire. DNRC and cooperating agency fire suppression forces will be used to ensure control of the fire. DNRC ordered forces will be withdrawn from the fire when agreement has been reached between the fire incident commander and the state that the county is capable of handling the remainder of the fire activities adequately.

A written request from the County Commissioners for assistance is needed within 48 hours of a determination of need. Suppression Assistance - Department assistance should normally be aimed at:

- County Fire Advisor.
- County Fire Multi-Leader Team advice to local forces (County Assistance Team (CAT) Type III).
- Specialized fire personnel trained in burnout and equipment use.
- Providing specialized pieces of equipment, such as burnout torches, air tankers, observation aircraft, etc.
- The use of well-trained, experienced fireline hand crews (e.g., I.H. and jumpers) will normally be limited, but if they are utilized, they should have the ability to be split up or to work as independent members of a suppression force.
- Initial attack and/or assistance by DNRC forces where DNRC direct protection borders areas of county protection responsibility.
- Type I and II Interagency Incident Management Team.

Role of the DNRC County Fire Advisor

The DNRC County Fire Advisor duties are normally handled by the local DNRC land office personnel. When the monitoring of fires indicates that the situation may become serious, additional county fire advisory aid may be requested. Selected DNRC personnel will be available to the land offices that may be experiencing fire problems in a cooperative county or counties. These personnel will be referred to as "DNRC Fire Advisors" and will have prior training and experience in both timber and grassland fire behavior. They will also be familiar with the county cooperative fire program and the use of local government forces.

A DNRC Fire Advisor may be requested by the land office, through the zone coordination center, any time the land office feels that advisory assistance is needed. The DNRC Fire Advisor is not to relieve the Area Manager or his representative of their duties and responsibilities, but is to advise and assist them and the county during periods of heavy or critical fire loads. They will make specific recommendations as to personnel and equipment needed on fires in the county and also may give advice on how to better utilize the existing forces.

A written request from the County Commissioners is not needed for DNRC to provide this advisory assistance.

Tailor Suppression Assistance to the Values at Risk

Limited and specialized assistance may be provided to a cooperative county by the land office on verbal concurrence of the DNRC Fire Warden and/or County Commissioners. (Full project fire assistance must be from the County Commissioners and followed up by a written request within

48 hours.) It should be well understood by the county that DNRC resources are available to them at all times on a limited basis. This assistance may be with personnel and/or equipment.

General Guidelines

The following points have been listed as a general guideline for DNRC overhead and land office personnel that are assisting cooperative counties in fire suppression:

- a. Many county fires have developed into uncontrollable project fires because of lack of adequate fire knowledge by fire suppression crews or personnel. Sufficient fire training has not always been received by all county personnel involved in fire control.

These deficiencies (lack of adequate fire knowledge and fire training) have resulted in the construction of inadequate fire lines that (a) may not be fully connected or anchored; (b) may be too narrow; (c) are too far from the edge of the burning fire. Such deficiencies in line building allow the fire to creep, or be carried by the wind, out of its present burn area. Wherever possible, it should be stressed to county personnel that crews make absolutely sure lines are anchored and tied together, and that mop-up is adequate to keep the fire from spreading beyond the established control lines under normal weather conditions. The importance of follow-up patrols on a regular basis should also be emphasized. The Basic, Intermediate and Advanced Wildland Firefighter training program is available to all cooperating counties.

- b. The initial order for personnel and equipment will be approved by the Land Office. If the land office is unsure as to needs, a County Fire Advisor should be requested immediately to assist.
- c. A County Assistance Team will be used on project county fires when practical. Due to limited personnel and prior commitments of team members, other trained overhead team members may be used. Assignment will be on a case-by-case basis.
- d. A land office that is experiencing county fire problems will assign at least one individual as a County Fire Advisor and one individual as the Agency Representative. Both should be from the local land office or be extremely knowledgeable of land office operations and the local community.
- e. The individual acting as the Agency Representative will work closely with all personnel to maintain coordination and a good working relationship. All overhead fire teams should maximize coordination with the landowner, local volunteers, county personnel and State personnel that are involved with the suppression effort.
- f. All fire suppression methods considered for use during project fire operations will

be coordinated with the landowner, Fire Incident Commander and the Area Manager or his/her representative. If adjoining landowners are threatened, they should also be contacted and informed of proposed tactics. The decision on the use of specific fire tactics to be employed on the fire will continue to remain with the DNRC Fire Incident Commander. Whatever tactics are decided upon, the saving of lives, structures, and high value property will be of paramount importance, and should be stressed before a final decision is made on the method to be used in the suppression action. Documentation in writing, stating basis for suppression method utilized, is advisable. Such documentation may be helpful later, if there is a question on the tactics utilized in suppressing the fire.

- g. The county will maintain a fully-committed status throughout the duration of the fire or fires. County crews and county equipment should be made available to the fire, if not committed on other fires. Requests for crews and equipment will originate with the Fire Incident Commander. If the request for county crews and equipment is not promptly acted upon, the Agency Representative or Area Manager will work with the County Commissioners to fill the request. County equipment should be utilized, where practical, before private equipment is rented for use on the fire.

Any equipment voluntarily furnished by the landowner for fire suppression upon their lands or upon adjacent lands will not be hired onto the fire by the state. Such equipment should be utilized as long as the landowner is willing to provide it in a voluntary capacity. If the landowner is unwilling to voluntarily provide specific needed equipment upon request, then DNRC may hire the needed equipment to meet suppression objectives.

- h. If a volunteer fire department or other volunteers are helping in the suppression activity, a coordinated effort should be made by the Fire Incident Commander to maintain volunteers on the fire through split 24-hour shifts. Any volunteers on the fire are not to be paid by the state. If specialists such as sawyers, dozer operators, truck drivers, etc., are needed on the fire, they can be put on the state payroll. This excludes county employees and is not applicable if the specialist is available through the county.
- i. An agency representative should be ordered as part of any interagency team that may be on a county fire and/or where the potential exists for county resources to become involved in the suppression effort.
- j. Any fires occurring in areas of cooperative county protection should be monitored closely where fire spread may cross agency protection boundaries. Fires spreading across agency boundaries may involve sharing of costs associated with the suppression efforts. Agency representatives should be consulted as soon as a threat is determined on their jurisdiction.

C. WILDLAND AND STRUCTURAL FIRE PROTECTION EFFORTS

Overview: The statutory fire protection responsibility for Montana's natural resources and structural developments has been assigned to various federal, state, and local government agencies. By law, agencies have responsibility for protecting the natural resources of the state. Local government agencies may be authorized or directed by state statute to provide fire protection to both natural resources and improvements/structures. Within this text, the terms structure and improvements are interchangeable and include buildings, enclosed structures, vehicles, vessels, aircraft, or like properties.

The distinction between natural areas and structural developments has been well defined in the past. However, these differences have become more vague with the encroachment of structural developments into what was exclusively forest or wildland areas. This mixture of wildlands and developments has become quite extensive throughout the State and has been labeled the "Wildland/Urban Interface (WUI)." This rapidly expanding area has created significant fire management problems for all agencies with natural resource fire protection responsibilities.

Wildland Fire Protection

¹ The DNRC's mission has been the protection of the natural resources of the state from wildfire. DNRC's primary mission is protection of those state and private classified forest lands lying within their protection boundaries. ² Large tracts of federal lands within DNRC protection boundaries are also being protected through contract or offset. Although "forest fire protection" has been DNRC's primary responsibility for several years, this responsibility has been re-defined to a broader one of "wildland fire protection". Wildland fire protection is a more inclusive term for both forest and range lands and more closely defines DNRC's role as a natural resources fire protection agency.³ DNRC's current program direction is to take suppression actions that are both offensive and defensive on farm, range, forest, watershed, or other uncultivated lands in private and public ownership. DNRC accomplishes its mission of protecting these private and public lands through a combination of three primary methods. These methods are labeled as direct, contract, and state/county cooperative fire protection.

- a. **Direct Protection** - This type of protection is handled directly by DNRC. Prevention, pre-suppression and suppression work are all considered DNRC direct fire protection responsibility. DNRC hires personnel and purchases equipment necessary to fulfill wildland fire protection responsibilities for assigned lands. Assigned lands are within established wildland fire protection districts or units.
- b. **Contract Protection** - This type of protection is provided to state and privately owned lands by a federal agency which has been recognized by the State Land Board. Recognized federal fire protection agencies are required to provide protection at the same or higher level as they do on their own lands. Contracting is accomplished either by the offset method or by direct payment to the federal agency for their services.

- c. **State/County Cooperative Protection** - The state and county cooperative fire program is lower intensity fire protection than that of direct or contract protection, but it fully meets the legal requirements for protecting natural resources. The county provides the basic level of fire protection through a system of volunteers, county personnel, rural fire districts, fire service areas, etc. The county may be supported by the State in matters of organization, planning, equipment, training, and suppression.

¹**MCA 76-11-101. Protection of natural resources from fire.** The Department of Natural Resources and Conservation, under such rules as the State Board of Land Commissioners may provide, shall protect the natural resources of the State, especially the natural resources owned by the State, from destruction by fire and for such natural resources owned by the State, from destruction by fire and for such purpose, in emergencies, may employ men and incur other expenses when necessary.

²**MCA 76-13-102. Definitions.** (5) "Forest fire protection" means the work of prevention, detection and suppression of forest fires and includes training required to perform those functions. Protection, in this case, includes prevention, detection, and suppression and are defined as follows: (1) Prevention -- Activities directed at reducing the number of fires that start, including public education, law enforcement, and engineering methods to reduce fuel hazards (2) Detection-The act or system of discovering and locating fires. (3) Suppression-All the work of extinguishing or confining a fire beginning with its discovery. Suppression action may take the form of either defensive or offensive.

³**MCA 76-11-102. Cooperative agreements with owners and lessees of land for fire protection and conservation.** (1) For the purpose of more adequately promoting and facilitating the cooperation, financial and otherwise, between the State and all of the public and private agencies or individuals therein, the Department of Natural Resources and Conservation may cooperate with owners or lessees of farm, range, forest, watershed, or other uncultivated lands in private and public ownership for the protection from fire of the cultivated agricultural crops or natural resources existing or growing therein and also in the conservation and perpetuation of such lands and resources, including the prevention of soil erosion and the regulation of stream flow.

¹ **NFPA 1500-13 (1-5) Definitions.** Offensive operations: Actions that involve a direct attack on a fire, to directly control and extinguish the fire, often performed in the interior of involved structures. Defensive operations: Actions that are intended to control a fire by limiting its spread to a defined area, avoiding the commitment of personnel and equipment to dangerous areas. Defensive operations are generally performed from the exterior of structures and are based on a determination that the risk to personnel exceeds the potential benefits of offensive actions.

Structural/Improvements Fire Suppression

Montana law states that DNRC **may** protect non-forest lands and **improvements** when requested by the landowner. DNRC has elected to provide protection to nonforest lands, when requested by the landowner, through the use of nonforest agreements. DNRC has not elected to provide the same level of protection to improvements. DNRC Fire & Aviation Management interprets improvements to include structures and related high value items as defined within NFPA 1500-10, structural firefighting.

Suppression actions by DNRC on structures will be defensive in nature and thus be confined to the exterior of structures. DNRC wildland firefighters are **ABSOLUTELY PROHIBITED** from performing any interior firefighting activities on structures.¹ Until qualified structural services have arrived at the fire scene, DNRC personnel shall limit their actions on structural fires to:

- a. **Activities Necessary For The Immediate Protection or Saving of HUMAN LIFE** - The protection of human life shall only be attempted by DNRC firefighters when such suppression activities will not jeopardize the lives of the firefighters. DNRC firefighters will not enter the interior of any burning structure and may only conduct defensive structural suppression actions.
- b. **Defensive Suppression Actions Intended to Contain The Fire to the Structure Involved** - These actions are confined to the exterior of the structure only. NO offensive interior suppression actions will be undertaken by DNRC firefighters.

DNRC firefighters will conduct defensive suppression actions involving structures only to the extent they can be performed safely. Firefighters should be made aware that structures may contain unseen highly hazardous materials that may explode violently or produce toxic fumes and/or smoke.

- c. **Defense of Structure Prior to Ignition From an Approaching Wildfire**
Defensive actions will be carried out safely and ensure that firefighters lives are not placed in danger to save a structure. DNRC firefighting personnel may attempt to defend a structure from destruction from the outside (exterior) utilizing various tactics. These tactics may include spraying water or foam on the structure, burning out from existing or established control lines, and clearing fuels/materials from around the structure to make a "defensible space" to protect the structure from an approaching wildfire. Tactics used will be within the capabilities of DNRC wildland firefighting personnel and equipment. Wildland incident commanders may sacrifice wildland acres in the defense of improvements, utilizing wildland suppression equipment, if they feel these actions will not jeopardize their overall wildland suppression strategy. Again at NO time will DNRC firefighters put themselves in danger to defend a structure.

D. COMMUNICATIONS CONTACT LIST

Powder River County Volunteer Fire Department	406.436.2259
Powder River County Fire Warden	406.436.2032
Powder River County Commissioners	406.436.2657
Powder River County Clerk & Recorder	406.436.2361
Powder River County Sheriff's Office	406.436.2333
BLM	406.232.0323
DNRC	406.232.1270
USFS	406.784.2350
Belle Creek Fire District	406.427.5487
Biddle Fire District	406.427.5505
Ashland Fire District	406.784.2222
DES	406.436.2762



CHAPTER III. INCIDENT COMMAND

- A. ICS COMMAND SYSTEM
- B. FIRE CAMP LOCATIONS

A. ICS COMMAND SYSTEM

There are many factors that determine the complexity of an incident and the need for an Incident Management Team. These factors may include size, location, threat to life and property, political sensitivity, organizational complexity, jurisdictional boundaries, values at risk, fuel types, topography, agency policy, etc.

The precise moment of an incident progressing from one complexity to the next is a judgement call of the individuals involved. The jurisdictional head or designated representative must determine the complexity of an incident and assign qualified personnel as needed. In situations where multiple agencies and jurisdictions are involved, the determination of complexity and assigned personnel should be agreed to jointly.

In the event of a Type I or II Wildfire, an Incident Management team will be contacted to manage the incident (see ICS organizational chart). However, experience indicates that over 95% of all wildland fire incidents are at the Type III and IV complexity levels leaving the Type I or II occurring in 5% or less of the incidents. However, the majority of the resources and property loss and suppression expenditures occur within that five percent.

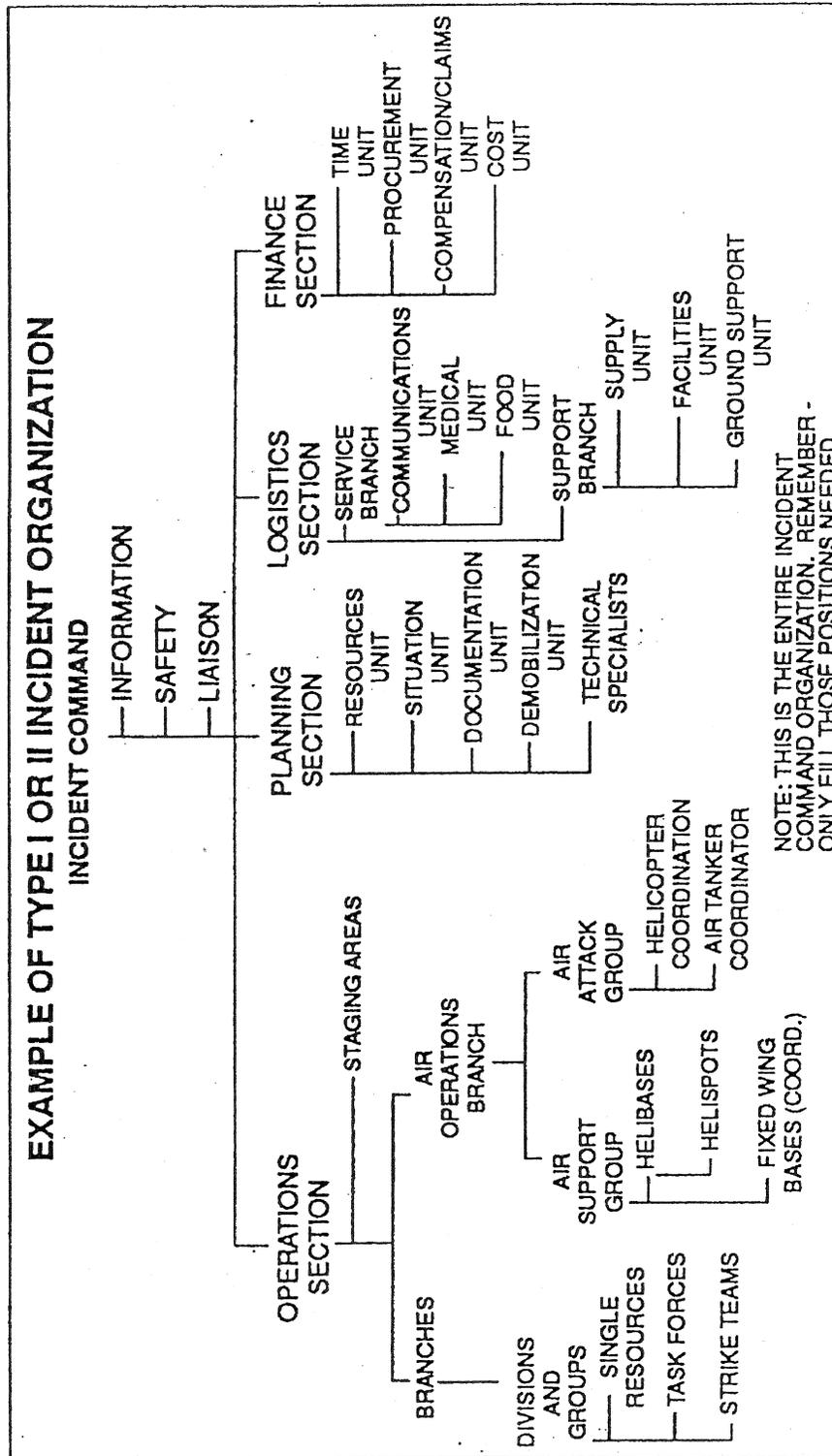
B. FIRE CAMP LOCATIONS

Should a Type I or II Team be needed, fire camps will need to be set up. Basic considerations when developing areas to place fire camps include access to power, phone lines, maintained travel routes and relatively close proximity to the fire location. Since the Ashland Ranger District contains the bulk of the timber base, it is most likely that a Fire Team would locate on the District. Locations which have been used in the past during fire situations or that would make acceptable fire camp locations in the future include; St. Labre, Red Rock Campground or Holiday Campground.

Areas outside the forest boundaries that have the potential to be used as fire camp locations would need to be determined as situations occur as well as agreements made with individual landowners and federal and county government.



Organization Chart for Type I and Type II Incidents



CHAPTER IV. VEGETATION AND FIRE BEHAVIOR

- A. VEGETATION AND FUELS
- B. FIRE BEHAVIOR
- C. FIRE REGIME/CONDITION CLASS
- D. FUEL MODELS
- E. IDENTIFYING AND PRIORITIZING HIGH RISK AREAS

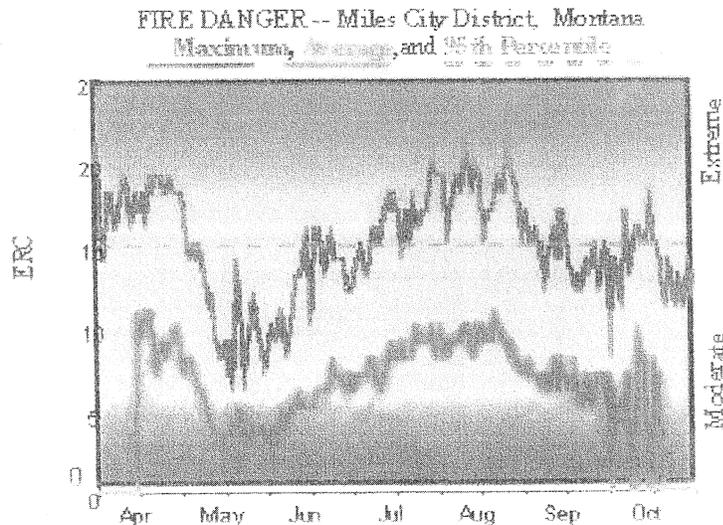
A. VEGETATION AND FUELS

The vegetation found within the majority of Powder River County is a made up of dry grasslands and sagebrush, timber and hardwood draws, with the remainder being ponderosa pine forests. The areas where ponderosa pine forests and private lands or residences occupy the same locations is the focus for fuel loads projects. These locations will be broken into areas of concern based on the fuels situation within their immediate vicinity. Priority fuels activities are those that have high levels of dead and downed fuel on the forest floor and those areas where timber crowns touch and are continuous leading up to and threatening private land, structures or residences.

An analysis has been conducted using fire history boundaries to determine what areas have burned in the past due to wild fire or prescribed fire and what areas have the highest probability to burn in the future. The remaining areas that have not burned will need to be assessed as fire hazard areas that are located near private land or residences and have dense amounts of timber and potential hazardous fuel loadings. The analysis prioritized the fuels reduction strategies to restore healthy forests and protect communities at risk.

Fuel burning condition areas are assessed on a real time scale by measuring current fuels status with actual fuels moisture content and energy release components allowing the current fuels situation to be compared to historic problem fire years.

An awareness of current fuels situations provides a good estimate of potential fire behavior based on historic fire activity. The tool used to make this comparison is referred to as a Pocket Card. The Pocket Card contains a scale of Fire Danger Interpretation in order to assist fire fighters when attempting to suppress a wildfire. Each pocket card relays a site, fuel model specificity, a scale representing extreme caution and moderate energy release component levels (ERC) and a 95th percentile line.



The Fire Danger rating card represents where the Average, Maximum and 95th percentile areas are located on the card. The rating lines date back approximately 20 years and are a record of fire history and weather events. Weather data is collected from several sites around the area and the information is then compared to the historic conditions that showed a large fire growth day or extreme fire conditions. This information relays the energy release component which provides the extent of released energy when burning. The Energy Release Component (ERC) level at the left side indicates the ERC rating for that particular time of year based on historic recordings. After receiving the daily weather and ERC level the information can then be plotted on the card to compare the current weather to historic weather and the level of fire danger (i.e., if the ERC level reads 15 and it is May 15th, then it is not only above the historic 95th percentile for fire danger, but is also above the maximum recorded fire danger rating level).

Recap of vegetation and fuels and analysis area criteria:

- Location of private land or residences
- Location of hazardous fuel loadings based on 40% canopy cover and greater
- Location of Fire Regime 1 Condition Class II or III areas
- Location of probable future fire areas that need treatment
- Hazardous fuel loadings + private land = treatment area

B. FIRE BEHAVIOR

Normal fire behavior under average conditions for this area will usually result in wildland fires of low to moderate intensities that can usually be successfully suppressed. Some of these fires may exhibit torching, short crown fire runs, and spotting during the afternoon burning period. However, large, high intensity fires exhibit some common characteristics. They usually occur during drought conditions when fuels are cured and very dry along with a continuous source of forest fuels. The prevailing winds are commonly out of the north and usually proceed and follow

frontal passages. These winds can be quite strong and come from any direction throughout the day or night. The direction of fire spread cannot be narrowed down to a specific direction and therefore makes fuels treatment important for all private lands and residences where fuel loadings or timber canopy areas are at a hazardous level or level conducive to crown fire spread.

During a wildland fire event, winds and continuous timber crowns that lead to the wildland/urban interface (WUI) are the main concern of residents and fire fighters. Fire behavior has the potential to increase and be sustained the closer tree canopies or crowns are and the greater the wind speed. Therefore, the reduction in the number of trees is the key to minimizing the crown fire equation.

We are not able to control the wind speed or direction, but we do have the ability to control the density of a timbered stand through the removal of trees. As stated above, we have assessed the fuels/timber canopy closure or density across the county and are able to determine what areas are in need of treatment. This directly relates to how a fire spreads through a given timber stand. Fire behavior can be modeled by mathematical calculations which use slope, effective wind speeds, fuel model, and fuel moisture. By using the fire behavior calculations and assessing a given fuel condition we can determine what needs to occur in a specific fuel model to decrease the severity and intensity of a wildland fire and its impacts on the forested environment and communities.

C. CONDITION CLASS & FIRE REGIME DEFINITIONS

Fire Regime and Condition Class are terms that represent a general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but under the influence of aboriginal burning. The fire regime condition class is a classification of the amount of departure from the natural regime. This includes three condition classes for each fire regime. The classification is based on a relative measure describing the degree of departure from the historical natural fire regime. This departure results in changes to one (or more) of the following ecological components: vegetation characteristics (species composition, fire frequency, severity, and pattern) and other associated disturbances (e.g. insect and diseased mortality, grazing, drought). There are no wildland vegetation and fuel conditions or wildland fire situations that do not fit within one of these classes.

Federal Condition Class Definitions

Condition Class 1 (CC1): Fire regimes are within historical range and the risk of losing key ecosystem components is low. Vegetation attributes (species composition and structure) are intact and functioning within a historical range. Fires burning in CC1 lands pose little risk to the ecosystem and have positive effects to biodiversity, soil productivity, and hydrologic processes.

Condition Class 2 (CC2): Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components is moderate. Fire frequencies have departed from historical frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire size, intensity and severity, and

landscape patterns. Vegetation attributes have been moderately altered from their historical range. Wildland fires burning in CC2 lands can have moderately negative impacts to species composition, soil conditions, and hydrological processes.

Condition Class 3 (CC3): Fire regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, intensity, severity, and landscape patterns. Vegetation attributes have been significantly altered from their historical range. Wildland fires burning in CC3 lands may eliminate desired ecosystem components, exacerbate the spread on unwanted non-native species, and result in dramatically different ecological effects compared to reference conditions.

Fire Regime Definitions

The fire regime classification system is used to characterize the personality of a fire in a given vegetation type, including the frequency that the fire visits the landscape, the type of pattern created, and the ecological effects. The following natural fire regimes are arranged along a temporal gradient, from the most frequent to the least frequent fire return interval.

Fire Regime	Fire Frequency	Fire Effect to Dominant Vegetation
Fire Regime I	0-35 Years	Low severity
Fire Regime II	0-35 Years	Stand replacement
Fire Regime III	35-100+ Years	Mixed severity
Fire Regime IV	35-100+ Years	Stand replacement
Fire Regime V	200+ Years	Stand replacement

Fire Regime and Condition Class are the primary tools used for determining where the target fuels treatment areas are located. As stated above, we have identified the locations of historic fire perimeters, which have occurred since 1980. These areas fall well within the Fire Regime I and Condition Class I and would not be target fuels treatment areas due to their recent fire activity. Removing recent fire perimeters from our areas of consideration can narrow the focus of our efforts to unburned areas that fall within the Fire Regime I and Condition Class II and III criteria. The areas that include these two criteria and are adjacent to private land or residences places them in priority areas of consideration for fuels reduction treatment.

D. FUEL MODELS

Fuel Model #1 Short grass: Fire spread is governed by the fine, very porous, and continuous herbaceous fuels that have cured or are nearly cured. Fires are surface fires that move rapidly through the cured grass and associated material. Very little shrub or timber litter is present,

generally less than one-third of the area.

Fuel Model #2 Open Timber with grass understory: Fire spread is primarily through the fine herbaceous fuels, either cured or dead. These are surface fires where the herbaceous material, in addition to litter and dead-down stemwood from the open shrub or timber overstory, contribute to the fire intensity. Open shrub lands and pine stands that cover one-third to two-thirds of the area may generally fit this model; such stands may include clumps of fuels that generate higher intensities and that may produce firebrands.

Fuel Model #9 (This fuel model can represent some stands of dense ponderosa pine overstory in our area.) Fires run through the surface litter faster than Model 8 and have longer flame height. Concentrations of dead-down woody material will contribute to possible torching out of trees, spotting, and crowning. Represents over-mature conifer stands with loading of dead, down woody fuel, including shrub understory or conifer reproduction. The duff and litter may be deep and much of the woody material is over 3 inches in diameter. Can be used for settled thinning of partial-cut conifer slash, with needles fallen, overgrown by shrubs or conifer reproduction where the inclusion of a live component is needed.

E. IDENTIFYING AND PRIORITIZING HIGH RISK AREAS

Activity areas are based on areas that fall within Fire Regime I and Condition Class II and III criteria and that are also adjacent to private land or residences. Other priority treatment areas will include ingress and egress routes to these locations of primary concern and water sources. The identification of activity areas is and will continue to be ongoing and will change over time as these areas are treated by prescribed methods or wildfire. One objective of the Fire Plan is to better identify where the occurrence of wildfire is most likely and make management plans accordingly. These activity areas are based on scientific data collected by using satellite imagery to determine where hazardous fuel conditions are located. The areas for treatment are narrowed down to areas of condition class II or III, which are threatening private lands, access routes, or water sources.

Using GIS tools, including satellite imagery combined with existing data from County, State and Federal data bases, a number of maps have been created that identify the vegetative attributes of Powder River County at this point in time. These attributes can then be assigned a Condition Class, fuel model and approximate fuel conditions. This information was then considered relative to guidance and definitions for communities at risk and more specifically WUI's. To identify and prioritize high risk areas, the methodology found in the "Field Guide: Identifying and Prioritizing Communities at Risk from the National Association of State foresters was used. The methodology is as follows:

Methodology

Although there is no uniform, national hazard or risk assessment process, there are a number of valid assessment processes that may work well in individual states or regions. In developing a risk assessment process for communities, use the NWCG publication "*Wildland/Urban Interface*

Fire Hazard Assessment Methodology” as a reference guide. At minimum, consider the following factors when assessing the relative degree of exposure each community (landscape) faces. One effective approach is to map the four factors below using adjective ratings (high, medium, and low) and then overlay the maps to determine geographic areas of highest hazard, highest probability of fire occurrence, highest values being protected, and lowest protection capability.

- Fire Occurrence. Using historic fire occurrence records and other factors, assess the anticipated probability of a wildfire ignition in the vicinity of each community (or identified landscape) using an adjective rating system, such as high, medium, and low.
- Hazard. Assess the fuel conditions on the landscape and surrounding the community using a GIS mid-level mapping tool (if available) or other similar process. Again, apply an adjective rating to each specific area.
- Values Protected. Evaluate the human and economic values associated with the community or landscape, such as homes, businesses, community infrastructure (e.g. water systems, utilities, transportation systems, critical care facilities, schools, manufacturing and industrial sites, etc.) as well as high value commercial timber lands, municipal watersheds, and areas of high historical, cultural, and spiritual significance. As with the other factors, apply an appropriate adjective rating to each community or identified landscape.
- Protection Capabilities. Assess the wildland fire protection capabilities, including the capacity and resources to undertake fire prevention measures, of all agencies or organizations with jurisdiction: federal, state, tribal, and local. Again, apply an appropriate adjective rating. Consider using the Insurance Services Organization (ISO) rating for the community as an indicator.

Using this methodology, for Powder River County, the area with the highest fire occurrence, highest hazard, highest need for values protected and lowest protection capabilities included all of the private interface within and adjacent to the Ashland Ranger District. A secondary area of focus included lands that were in and around the Bacon Powder/Bay Horse area and a third area included lands around Belle Creek. This is not to say that other areas are not a risk.

To develop manageable and logical projects these large groupings were further evaluated in order to prioritize areas for fuels reduction and ecosystem restoration projects. Criteria was established in which to consider and compare each area and included:

- ✓ First, focus on the category/zone of highest overall risk but consider projects in all categories/zones. Identify a set of projects that will effectively reduce the level of risk to communities within the category/zone.
- ✓ Second, determining the community’s willingness and readiness to actively participate in each identified project.
- ✓ Third, for each potential project, determining the willingness and ability of the owner of the land surrounding the community to undertake, and maintain, a complementary project.

- ✓ Last, set priorities by looking for projects that best meet the three criteria above. In other words, assign a higher priority to those projects with the greatest potential to achieve a proper sequencing of treatments. Assign lower priority to projects where either the community or the surrounding landowner is unwilling or unable to actively participate. However, do not overlook opportunities around isolated, rural communities which may be at high risk, but not be organized well enough to effectively advocate on their own behalf.

From this second review, projects north of 212 on the eastern portion of the Ashland Ranger District and east of Otter Creek below 212 are the highest priorities. In some cases, the willingness of local landowner to undertake and maintain a complementary project along with projects on adjacent federal land will determine final prioritization.

The attached maps display fuel conditions, identify priority fuel reduction areas and possible project areas.



V. WILDLAND/URBAN INTERFACE AND STRUCTURE PROTECTION

- A. WILDLAND/URBAN INTERFACE
- B. DEFENSIBLE HOME FACTORS
- C. STRUCTURE PROTECTION
- D. RECOMMENDATION OF REVIEW PROCEDURES

A. WILDLAND/URBAN INTERFACE

The wildland/urban interface is defined as the line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

Powder River County is typical of many areas in southeastern Montana having potential wildland fire and wildland/urban interface fire problems. Due to the possibility of new development occurring in the area, now is an appropriate time to introduce fire protection guidelines to current landowners, future homeowners, architects, contractors, and developers.

A major goal of Powder River County is the protection of life, property and resources. To obtain this goal everyone involved needs to become part of a cooperative fire protection effort. Through planning and safety, the fire protection of Powder River County can be achieved without sacrificing the goals of cooperating partners and stakeholders.

It is the responsibility of Powder River County to plan suppression and mitigation efforts and to create awareness of potential fire protection problems and their consequences. Yet it is ultimately the responsibility of the landowners and homeowners to become educated concerning mitigation strategies they can employ and self-protection techniques to use when faced with the dangerous conditions that a wildland/urban interface fire will pose in Powder River County. In addition, it is the responsibility of the homeowner to ensure that they have structural fire suppression provided to their homes. Wildfire suppression cost associated with a fire initiating on private land could be the responsibility of the private landowner where the fire initiated.

Wildland/Urban Interface "Watch Outs"

There are nine factors that fire fighters, both wildland and structure, use to determine whether structures are safe to defend in a wildland/urban interface fire. They are:

- Structures located in topographic chimneys, box or narrow canyons, or on steep slopes in flashy fuels.
- Wooden construction and wood shake roofs.
- Inadequate water supply.
- Fuels (vegetation, firewood, lumber, etc.) within 30 feet of structures.
- Poor access and narrow congested one way roads.
- Bridge load limits.
- Vulnerable to strong winds.
- Potential for extreme fire behavior.
- Need to evacuate the public.

If the area in which individuals reside or their residences have any of these characteristics, consideration should be given to working on home and property or with the community to mitigate the problems and enhance fire protection.

B. DEFENSIBLE HOME FACTORS

Ten major areas need to be addressed by landowners, architects, developers, and homeowners in the planning phase of a development or purchase of a home.

1. Non-combustible roofing materials.
2. Buildings utilizing fire resistant construction materials and design principles.
3. Fire resistant landscaping components are used in the landscape plan.
4. Creating a defensible space - mainly through vegetation reduction and clearance.
5. Water storage and supply - individual water storage areas, adequate natural water fill sites, adequate dry hydrants, and residential sprinkler systems.
6. Roads and driveways - easy ingress and egress for the residents and for emergency vehicles.
7. Road signs and addresses - clearly displayed and visible from the road.
8. Fuel breaks and greenbelts.
9. Building spacing and densities - dependent on fuels and slope of the area.
10. The development or home is located in the boundaries of a structure fire entity.

Risk rating for home owners

For the homeowner to have an understanding of the wildland/urban interface fire problem associated with their home and the surrounding vegetation and terrain, a risk assessment tool is needed to develop a risk rating for the home.

The Wildland/Urban Interface Fire Hazard Assessment Methodology developed by the National Wildland/Urban Interface Fire Protection Program provides guidance to the homeowner for conducting a risk assessment for their home.

The guide offers a five-step method for the homeowner to assess the hazards of living in a wildland/urban interface area. The guide provides suggestions for the homeowner to reducing the fire potential using the following approaches:

- building a home or altering an existing home to reduce its chance of ignition, and
- completing mitigation measures on the surrounding wildland area.

To obtain an on-line copy of the document, visit the Firewise web site at www.firewise.org. At the Firewise web site the home owner can also conduct a simple risk rating for their home.

The Montana Fire and Aviation Management Bureau (DNRC) has also developed a risk rating form and procedure (See Appendix four). Contact either the Wolf Creek or Craig fire department for information on obtaining this risk rating for your home and property.

Defensible space

Each year many families lose their homes and possessions to the ravages of wildland fires throughout the Nation. Chances for the home's survival can be greatly increased if the homeowner performs some basic fire safety activities such as creating a defensible space. Defensible space refers to an area around the home where the native vegetation has been modified to reduce the fire threat to the home and provides a safe area for fire fighters to work effectively and safely. There are three benefits to defensible space:

1. The fire department will be more likely to successfully defend the home.
2. The home is more likely to survive a wildland/urban interface fire without a fire engine located at the structure.
3. A fire is less likely to spread from the home to the surrounding

If native vegetation is properly modified, a wildland fire can be slowed down, the lengths of the flames shortened, and the amount of heat reduced, all of which contribute to a home surviving a wildland fire. In reality not enough fire engines could be gathered fast enough to place one by each home threatened in a severe crowning fire even if safe for fire fighters. Defensible space may be the only chance for a home to survive. A better term might be "survivable space".

Guidelines For Creating Defensible Space

Slope affects the size of the defensible space. Homes near steep slopes will need to clear additional vegetation to mitigate the effects of the radiant and convective heat currents and flame lengths. The downhill distance is particularly important because the slope will increase the flame lengths.

These Guidelines describe the basics of creating a defensible space around the home as well as fire protection guidelines for the entire property.

To create a defensible space, the homeowner must:

- ✓ Evaluate the area surrounding the home in terms of defensible space and identify problem areas for correction.
- ✓ Determine the amount of defensible space necessary.
- ✓ Develop a plan for correcting the problems, coordinate with adjacent land owner(s) if necessary, and incorporate existing landscape features.
- ✓ Secure necessary permits and have trees marked for removal by a qualified forester or fire specialist.
- ✓ Implement your plan.
- ✓ Remove all slash generated by fuel modification efforts, either by burning, chipping or removing from the site, as soon as possible.
- ✓ Maintain the defensible space on a routine basis.

If there is any doubt about whether or not you have planned enough defensible space, put yourself in the shoes of the fire fighters. Stand against your home and pretend you have a fire hose in your hand. The fire is coming at you and flame lengths are 1½ times the height of the

vegetation. Would you feel safe? If not, plan more work!

In addition to defensible space, there are several other steps a homeowner can take to make a home more fire-resistant, including:

- ✓ The roof is the most vulnerable feature of a structure to a wildland fire replacing untreated wood shake or shingles with a fire resistant (Class "A" or "B") roof covering is the only long term solution to reducing the wildland fire threat to the structure.
- ✓ Combustible siding also reduces the survivability of a structure to wildland fire.
- ✓ Spray or brush treatment of fire retardant chemicals to combustible roofs and siding may provide short term protection, if applied on a periodic basis.
- ✓ Ensure the availability of outdoor water supplies.
- ✓ All exterior vents should be covered with 1/4inch wire mesh.
- ✓ Chimneys are required to have a spark arrester.
- ✓ Windows should be double-paned or tempered glass and have fire resistant drapes.
- ✓ Pre-cut plywood panels should be available to cover windows, if a fire approaches, to prevent the windows from breaking.
- ✓ The area beneath wooden decks should be screened or enclosed, be free of flammable vegetation and clear of combustible materials.
- ✓ Smoke detectors should be installed within the home, with at least one near sleeping areas, one on each level and tested twice a year.
- ✓ Keep propane tanks clear of flammable vegetation and combustible materials for at least ten feet.
- ✓ Keep the roof and rain gutters free of debris. Routinely remove pine needles, leaves, and litter from these locations during the fire season.

C. STRUCTURE PROTECTION

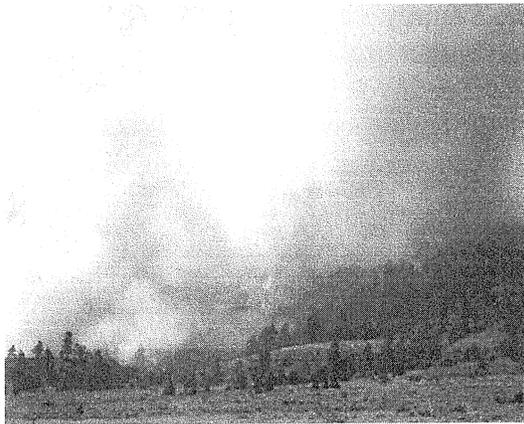
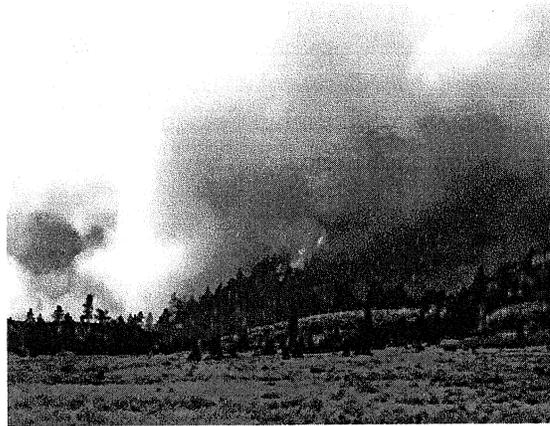
Homeowners insurance is a way to protect what may be the most important investment of your life - your home. Fire could devastate a family's ability to survive. To ensure you have enough insurance to cover the costs associated with a fire, insurers recommend you insure for replacement cost. Check your policy to see if you have actual cash value or replacement cost coverage for your home and possessions. Replacement cost coverage means you will be paid for a new like and kind item. Actual cash value means you'll receive what the item would be worth today.

Insurance companies are very concerned about their customers in high-risk fire areas and encourage homeowners to take measures to ensure the safety of their families and properties. Every insurance company has slightly different requirements for fire safety, but the key issues when determining if a property is insurable are access, type of construction, and vegetation management.

When purchasing or building a home, buyers or builders should be aware of the property's fire risk. Information should be acquired as to structural fire protection availability to your home or property.

D. RECOMMENDATION OF REVIEW PROCEDURES

- Development and implementation of planning requirements to reduce fire hazards within the wildland interface - particularly with anticipated “boom” growth from Coal Bed Methane (CBM) and coal track development.
- High fuel loading
- Ingress and Egress



CHAPTER VI. FIRE PREVENTION AND PUBLIC EDUCATION

- A. INTRODUCTION
- B. GOALS
- C. TARGET AUDIENCES
- D. GENERAL RECOMMENDATIONS
- E. PUBLIC EDUCATION
- F. LONG RANGE RECOMMENDATIONS

A. INTRODUCTION

Powder River County residents must be made aware of the nature of fire, the limitations of fire suppression and the ways in which they can help themselves prepare for fire. Property owners need to be educated on the need to help themselves and each other by reducing the fuels through landscaping and modifying their homes prior to the wildland fire season and throughout the year. Private builders, contractors and architects must be educated in building homes with wildland fire protection and landscaping techniques in mind.

This education process must be conducted throughout the entire county and adjoining protection districts. The emphasis will be directed towards landowner and homeowner responsibilities.

B. GOALS

The goals of the public education program are:

- To create realistic expectations of the kind of conditions which might be expected on a critical fire weather day when a wildland fire will burn through Powder River County. Emphasize to the homeowner that under these conditions, it might not be possible for the fire department to protect their homes because of safety concerns for the responding fire fighters and the inability to safely fight the fire in those conditions.
- Educate homeowners on the role they need to play in protecting themselves by utilizing defensible space, fuel breaks, fire resistant vegetation and fire resistive construction.
- Educate the general public on the laws related to debris burning, prescribed fire and responsibilities of the permit holders.
- Create multi-media educational materials that are specific to the FSA, including fire protection/prevention issues.
- Educate the public on evacuation terminology, routes and meeting/sign-in areas and the need to always be prepared.

C. TARGET AUDIENCES

The target audience for education programs within Powder River County include diverse groups

and interests:

- Appraisers
- Contractors
- Developers
- County Planners
- Elected Officials
- Foresters
- Insurance Agents
- Media
- Realtors
- Homeowners
- Homeowner Associations
- Landowners
- Students & Teachers

D. GENERAL RECOMMENDATIONS

In the past it has been difficult to convince homeowners/landowners to embark upon 'drastic' changes to homes already constructed and to the landscape surrounding homes in order to make them more defensible and fire safe. This effort must continue. However, with this in mind it will be necessary to focus attention towards new construction, new homeowners, builders, designers and developers and the need for incorporation of fire safe practices and strategies when building new homes.

Review all new subdivision proposals and recommend implementation of fire resistive strategies and plans.

Utilize local and area media to deliver fire related messages and conditions. Focus on the burning season and fire season when fires are at their highest.

Work with DNRC and local governments to coordinate prevention programs and education opportunities.

Develop evacuation plans and educate the homeowners/landowners of evacuation routes and terminology.

E. PUBLIC EDUCATION

A public education plan is under development and will be implemented once completed. In the short term videos and other multi-media programs will be used and expanded to meet the needs of the individuals, groups and interested parties. A table-top exercise including Federal, State and local officials as well as neighboring jurisdictions is planned to improve the coordination and cooperation in the event of a large incident.

Target groups and key individuals will be contacted to set meeting dates. An agenda and program to meet the needs and time frames of these target groups and key people will be developed. Additional meetings will be scheduled as needed. The key message will stress the need for their cooperation and support by helping them to help themselves.

All concerns should be discussed and advice taken on how relations can be improved and built upon relying on the "Neighbors Helping Neighbors" concept. Since there are not many groups and organizations within the county, such as homeowner associations, it will be important that individuals be encouraged to step forward and support fire safe programs.

Several landowners in the county have developed defensible space around their homes. These landowners should be contacted to allow their properties to be used as demonstration areas. An award program should be considered for these and for new defensible space projects. Other types of fire safe demonstration projects should be considered.

F. LONG RANGE RECOMMENDATIONS

Annually review the prevention/education plan and update and improve educational programs. Continue to build area specific educational messages and show case success stories and innovations.

Enlist local and area business to provide space for educational materials and literature.

Use schools to educate the youth in fire prevention issues and cooperation.



CHAPTER VII. PUBLIC AND FIREFIGHTER SAFETY AND EVACUATION

- A. FIREFIGHTER SAFETY
- B. PUBLIC SAFETY AND EVACUATION
- C. SHELTERS

A. FIREFIGHTER SAFETY

Public and firefighter safety is the first priority during any emergency. However, wildland fires are the County's most common call out. Forest fires in heavy timber are always dangerous and rapidly spreading fires in which grass fuels have caused many serious firefighter burn-overs and fatalities. The level of fire fighting response to a wildland fire will vary depending on weather conditions and, if structures are involved, the defensible space surrounding the structure. Fire fighting personnel will not be put at risk in order to save a structure.

The assignment of structure protection in a wildland fire is often interpreted by a fire officer as one that cannot be declined, even without proper size-up, triage, making a fire behavior prediction, or determining if escape routes and safety zones are present for apparatus and personnel. Each fire officer receiving an assignment of structure protection should immediately convert this assignment to structure triage and commit resources only to those structures that have adequate defensible space.

Upon arrival at the incident, the officer in charge should rapidly analyze the components of LCESOS.

- ✓ Lookout(s)
- ✓ Communication(s)
- ✓ Escape Route(s)
- ✓ Safety Zone(s)
- ✓ Organization
- ✓ Supervision (accountability)

The first component that should be analyzed is the safety zone. Having determined if there is an adequate safety zone for fire suppression apparatus will allow the officer to rapidly determine if additional options for safety zones exist. The escape route to the safety zone must move with the crew. The lookout must keep the IC apprised of weather and fire conditions.

It is the ultimate responsibility of the fire agency officer to verify the safety of an assignment and to accept or deny the assignment on the merits of safety for his/her subordinates.

B. PUBLIC SAFETY AND EVACUATION

Every household should have a wildland fire response plan that includes:

- Evacuation routes from the neighborhood.
- Identification of "safe areas" in the vicinity if evacuation is not possible. Safe areas include those areas which possess little or no fuels, such as golf courses, parks, and large parking lots.
- Identification of an individual who resides outside of the neighborhood who will serve as a contact for relaying telephone messages. If a wildland fire occurs when the family is separated, they can contact this individual to determine the status of other family members.
- Establish a prearranged meeting place should evacuation be necessary while family members are separated.

Should a house be threatened by a wildfire, the occupants may be advised to evacuate or to "shelter-in-place" by fire or law enforcement officials. The purpose of evacuation is to protect people from life-threatening situations.

Take the following actions if you have time

Inside:

- Close windows, vents, doors, venetian blinds or non-combustible window coverings and heavy drapes. Remove lightweight curtains.
- Turn off pilot lights.
- Open fireplace damper. Close fireplace screens.
- Move flammable furniture into the center of the home away from windows and sliding-glass doors.
- Turn on a light in each room to increase the visibility of your home in heavy smoke.
- Place vehicles in the garage, have them pointing out, and roll up windows.
- Place valuable papers and mementos in the car.
- Close the garage door, but leave it unlocked. If you have an electric garage door, disconnect it so that the door can be opened manually.

Outside:

- Seal attic and ground vents with pre-cut plywood or commercial seals.
- Shut off gas at meter or at propane tank.
- Place combustible patio furniture inside.
- Connect the garden hose to outside taps.
- Place lawn sprinklers on the roof and near above-ground fuel tanks.
- Wet the roof.
- Wet all vegetation and burnables within 15 feet of the home.

If the occupants are not contacted in time to evacuate or if the owners are advised to "shelter-in-place", the steps suggested below will assist in protecting their property and the lives of their family.

Steps to Take if Fire Surrounds Your Home

1. Do not jeopardize your life! No material items are worth your life!
2. Retreat to inner most part of the house.
3. Stay away from all windows.
4. Stay low on the floor to avoid as much smoke as possible.
5. Have a water supply and wet towels with you. Fill bath tubs, sinks and other containers with water.
6. Have emergency tools, shovel, rake, and bucket including a battery operated radio, flashlight, and spare batteries.
7. Do not panic and leave the house at the last minute - you cannot outrun a fire.
8. After the fire has passed, check cautiously outside to see if radiant heat and smoke has decreased to the point that it would be safe to exit structure.
9. Check outside for burning embers or spot fires around the structure, under the eaves or on the roof. Extinguish the spot fires, but do not attempt to fight a fire on the roof if more than 25% of the roof is involved.
10. If the structure becomes involved in fire, move to an outside area that has already burned over and is black.

Evacuation Procedures

Many of the following points apply to any disaster requiring an evacuation. However, if you are ordered to evacuate, due to a wildfire in the vicinity of your home, all of the following points will be helpful:

- ✓ Take a minimum of belongings, i.e., only the non-replaceable items, with you.
- ✓ If you have time, tape a list to the front door giving your name and telephone where you can be reached after evacuation. (This is only if there are not any designated check-in points.)
- ✓ Close up but do not lock your residence.
- ✓ Leave lights on in your home.
- ✓ Know appropriate evacuation route(s).
- ✓ When driving out, have vehicle headlights on.
- ✓ Watch for incoming fire equipment or personnel.
- ✓ Drive carefully and safely - remain calm.
- ✓ Do not drive off road into areas of unburned fuel.
- ✓ Know escape routes and safety zones.
- ✓ Know the location of Evacuation Check-in Point or Evacuation Gathering point.
- ✓ Check in with the proper authorities so they know that you have safely left the area and where you are planning on going.
- ✓ Take a disaster kit containing:
 - a supply of drinking water
 - one change of clothing and footwear for each family member
 - a blanket or sleeping bag for each person
 - a first aid kit, including prescription medicines
 - emergency tools, including a battery operated radio, flashlight, and spare batteries

- extra car and house keys, credit cards, cash, and/or traveler's checks
- extra eyeglasses or other special items for infants, elderly, or disabled family members

Other Disasters Requiring Evacuation

There are at least two other potential disasters that could occur in Powder River County that might trigger an evacuation.

1. Hazardous materials accident on roads and highways.
2. Natural gas accident.

Highways

There are two state highways in the county. Highway 212 is a well traveled highway running east and west across the county. Highway 59 south intersects with Highway 212 approximately 3 miles east of Broadus and runs south into Wyoming. Highway 59 north intersects Highway 212 approximately 3 miles west of Broadus and runs northwesterly 80 miles to Miles City.

Proceed away from the on-coming spread of the fire down the main travel routes to designated safe areas or areas where communication is established.

The most qualified person who arrives on scene first will be the Incident Commander. The Powder River County Sheriffs Office will be in charge of the evacuation and security of the perimeter. The evacuation corridor will be determined by the chemical, quantity released and the wind speed and direction. The Montana Highway Patrol will assist with traffic control on highways 212 and 59 and elsewhere as needed.

Public Notification of Evacuation

Powder River County has recently received a weather alert system through the National Weather Service. The system is located at the Sheriff's Office and continually broadcasts the weather in our local area to alert the public of approaching dangerous storms. Individual radios can be purchased by the public to place in their homes for the same continuing information.

The community of Broadus also has local cable television service. When emergency events occur a teletype message can be viewed on the screen (blue channel) for information regarding the event.

The County is also pursuing grant possibilities for further emergency services coordination. We are pursuing grants that allow the purchase of a siren system to alert the public in the event of any emergency. This alert system will function in conjunction with the weather radios and cable television service in notifying the public of emergency events and inform them of steps that should be taken in the event of this particular. These possibilities and the existing systems will allow increased coordination and communication between emergency agencies and the public.

Evacuation Stages

Pre-Evacuation: Contact and briefing of residents.

Evacuation Warning:

Movement of special needs residents, livestock, and large mobile property.

Evacuation Requested:

Occupants asked to leave within a specified time frame.

Evacuation Order:

Official disaster declaration initiated and order for evacuation issued. Access to area prohibited to anyone not authorized by the Incident Commander (IC).

Area Controlled:

Perimeter roadblock maintained and patrolled.

Area Re-Entry:

Evacuees allowed to return.

C. SHELTERS

Evacuated persons needing shelter will be directed to established shelters provided by local schools and the Red Cross identified by Disaster Emergency Services. The Red Cross will set up shelters and register evacuees. All evacuees will be directed to contact the Red Cross to register as an evacuee. This will establish a point of contact to inform the evacuee when the evacuation order has been lifted.

Shelter locations will depend upon location of the incident, wind speed and direction. Possible locations are the Powder River County Courthouse, the Powder River Medical Clinic, Powder River Manor, Powder River County District High School, Community Center, Multi-purpose barn, and county livestock yards.

DES will maintain a hotline for emergency information for those who have been evacuated and provide for public information needs. DES will be the clearing house for all information regarding updates and evacuation status.

The evacuation order will be lifted by the Sheriff upon consultation with the Incident Command Team.



CHAPTER VIII. EXISTING AND PROPOSED WATER SUPPLIES

- A. EXISTING WATER SUPPLIES
- B. PROPOSED WATER SUPPLIES

A. EXISTING WATER SUPPLIES

The following areas are existing water supplies throughout the county:

- ✓ Firehall at Broadus (trucks can be filled for transport to the fire)
- ✓ Powder River
- ✓ Little Powder River
- ✓ East Fork Creek
- ✓ Otter Creek
- ✓ Pumpkin Creek
- ✓ Various streams and reservoirs located on private property that can be used with the permission of the landowner

The small creeks, streams and private land reservoirs are sources of water that cannot be depended upon consistently. The water levels may be extremely low especially during drought years, the landowner may not give permission, or the water source may be dry depending on the time of year.

B. PROPOSED WATER SUPPLIES

The following areas (in order of priority) are strategically planned dry well water sources the county hopes to implement to help alleviate the risk of fire or fire damage to public and private property.

- | | | |
|--------------------------|-------------------|--------------------|
| <input type="checkbox"/> | Darrah Edition | 10,000 gallon tank |
| <input type="checkbox"/> | Trusler Edition | 10,000 gallon tank |
| <input type="checkbox"/> | Ten Mile | 10,000 gallon tank |
| <input type="checkbox"/> | Fifteen Mile | 10,000 gallon tank |
| <input type="checkbox"/> | Taylor Creek Road | 10,000 gallon tank |
| <input type="checkbox"/> | Bloom Creek Road | 10,000 gallon tank |
| <input type="checkbox"/> | Lightning Ridge | 5,000 gallon tank |
| <input type="checkbox"/> | McGill Place | 5,000 gallon tank |
| <input type="checkbox"/> | Bales | 5,000 gallon tank |
| <input type="checkbox"/> | FTY Ranch | 5,000 gallon tank |
| <input type="checkbox"/> | Bay Horse | 5,000 gallon tank |
| <input type="checkbox"/> | Baking Powder | 5,000 gallon tank |
| <input type="checkbox"/> | Cross S Road | 5,000 gallon tank |
| <input type="checkbox"/> | Lloyds | 5,000 gallon tank |
| <input type="checkbox"/> | TA Corrals | 5,000 gallon tank |

CHAPTER IX. COMMUNICATIONS

All members of the Powder River County Volunteer Fire Department are paged out for emergencies by the 9-1-1 dispatch center located at the Sheriff's Office in the Powder River County Courthouse.

At this time the main repeater used for paging is the county road crew repeater located on Sand Creek hill west of Broadus. This tower is about 1000 feet south of U.S. Highway 212. This frequency is also used by the Powder River County road crew and school bus drivers when school is in session. The fire department also has use of the law enforcement frequency on both the Home Creek tower and the W- Butte tower located in western Carter County. The Powder River County Sheriff's Office also uses the frequencies located on the above mentioned towers. These towers provide good coverage throughout most of the county. However, there are certain areas in the county where coverage is spotty.

The fire department has its own repeater located on the Mid-Rivers cell tower which is located north of U.S. Highway 212, also on Sand Creek hill. This repeater is a portable repeater that runs on 12 volt power. It can be removed and transported anywhere for use on any type of emergency incident. It was purchased to alleviate radio traffic problems on the existing shared frequencies. If need be, it can be transported to areas where radio coverage is spotty or non-existent.

Clear text is utilized by the fire department in all radio communications. Codes will not be used. Every attempt should be made to clear radio traffic from the "County", "Home Creek" and "W – Butte" repeater as soon as possible so that they can be utilized by the incident commander to contact dispatch centers. Direct frequencies should be used at the incident scene whenever possible. In the event of a large scale emergency, other agencies providing support also use the red, mutual aid channel. The mutual aid channel is used by the fire department, BLM, and DNRC as the direct channel on all fire incidents.

Since the fire department also runs a rescue truck with hydraulic extrication equipment on board for motor vehicle accidents the department also has the medical frequency in its radios. Several members of the department are also on the ambulance crew.

* Please refer to Chapter II, Section B - ICS Command System for specific routes of communication.

Powder River County Radio Frequency List					
		RX	CGRX	TX	CGTX
1	County Repeater	151.115		156.105	127.3
2	County Primary	151.115		151.115	
3	Home Creek Repeater	154.830	131.8	158.730	131.8
4	W-Butte Repeater	154.830	131.8	158.730	141.8
5	Law Enforcement	154.830	131.8	154.830	131.8
6	EMS	155.280		155.280	
7	Fire Department Repeater	154.355	192.8	159.270	192.8
8	Fire Department Primary	154.355		154.355	
9	(Red) Mutual Aid	154.070		154.070	
10	BLM Repeater	168.425		167.900	167.9
11	BLM Primary	168.425		168.425	
12	Custer Forest Repeater	169.175		169.975	
13	Custer Forest Primary	169.175		169.175	
14	(East Zone) Air to Ground	168.675		168.675	

CHAPTER X. RECOMMENDED IMPLEMENTATIONS

The use of the mapping plotter equipment and Arcview program will allow Powder River County to coordinate and cooperate with other departments. This program creates a base level map which can add different layers of data on a single map. This permits BLM, DNRC, Forest Service and the County to produce a multi-layered information system which can be used by all agencies and the public. The PRCVFD has also contacted the Department of Revenue who has expressed interest in this program. The Arcview program also provides a mutual connection between these agencies in order for them to share information regarding the fuel loads and other areas of concern that can affect all agencies involved in fire suppression. Therefore, this coordination and communication effort saves time and labor for all parties and provides each department with a wealth of information.

Due to Powder River County's unique organization of volunteers, many plans and the implementation of those plans will rely on paid departments such as the Forest Service, BLM, County road crew, DNRC, rural addressing, and the office of the County Clerk and Recorder.

The web page for Powder River County and the Ashland Ranger District is up and running. Through coordination and communication of the PRCVFD and the Forest Service, this site will continue to be maintained and improved. Over the last several years the department has learned many lessons, the first being that PRCFD cannot stand alone. The assistance of BLM, DNRC, and the Forest Service is critical in order to have a fuels program within the county. Powder River County and these agencies will continue to educate private landowners of "firewise" and fuel loads which includes private land/forest service land interface. Fuel load problems can be remedied with a combined effort of prescribed burns and private landowner education.

The Forest Service and Powder River County will set up two meetings this spring to work with firewise information and provide information on interface areas with high fuel loads to private landowners.

PRCVFD also plans to address the lack of available water sources throughout the county. This plan has been put into motion by first selecting several sites within the county that will contain storage facilities (see map). The next phase will be to complete a cost estimate of the storage facilities and draft landowner agreements. Upon completion of this phase, the fire department will apply for a grant to purchase and install the necessary equipment.

Site evaluations are also a priority for the fire department this spring. There are approximately 30 sites bordering in high fuel load areas next to the forest that will be the focus of a fuels reduction project. The fire department also plans on performing an additional 50 site evaluations throughout the county, some of which will coordinate with the "firewise" program. One of the goals of the Powder River County Volunteer Fire Department is to make Powder River County a safer place to live.

ATTACHMENT 1

Montana
Department of Commerce
Grant Application

for

Community Plannning
Powder River County

May 15, 2002

I. Executive Summary

The intent of this proposal is to complete a Community Plan in Powder River County which will address opportunities to reduce the immediate and long term risk from wildfire. Powder River County, which includes fully three fourths of the Ashland Ranger District of the Custer National Forest, saw devastating fires in 2000. Two of these fires, the 10,000 acre Tobin and 60,000 acre Stag Fire required three overhead teams while smaller fires utilized local extended attack. Among the needs identified from the fires of 2000, were increased communication, coordination and planning between local governments and state and federal agencies. A first step in responding to these needs, is completion of a county wide plan to identify high hazard areas, locations for infrastructure such as dry wells, opportunities for fuel reduction projects, opportunities to enhance communication and coordination through GIS maps and opportunities to better inform the local public on fire activities.

This proposal is focused on a coordinated approach with representatives from local government, the volunteer fire department and state and federal agencies. The intent is to work together to identify needs, build upon established assets and initiate high priority projects to reduce fire hazards.

This proposal has strong support and commitment from Powder River County Commissioners, Broadus Volunteer Fire Department (the only fire department in Powder River County) Powder River Planning Board, Department of Natural Resources and Conservation, Bureau of Land Management and the Forest Service.

II. Eligibility

Powder River County is a large, rural county located in southeastern Montana. The County consists of 3,297 square miles and 1,858 people. The county seat is located in the town of Broadus which consists of 451 people and several outlying smaller communities. The County includes 2,102,400 acres with State, Bureau of Land Management and National Forest lands accounting for 743,000 acres. The western third of the county is located in and along the Ashland Ranger District of the Custer National Forest. This interface includes interspersed timber and grassland with very limited water resources. The eastern half of the county is primarily rolling hills and grasslands.

The primary industry in Powder River County is agriculture. Mill values have decreased significantly since the exploration of oil in the 1960's and 1970's. At that time, the mill value was approximately \$76,000.00. Today, the mill value is approximately \$4,400.00. Agriculture now provides the primary tax revenue to support the County. but drought conditions, fluctuating livestock prices and increased cost in this traditional industry have forced many to move on. Powder River County has continued to see a decrease in population with an 11% decrease from 1990 and 2000. Per capita income in Powder River County is approximately \$27,000, which places the County at number 34 of 56 counties for medium household incomes in Montana.

The Ashland Ranger District has one of the largest grazing programs on National Forest System Lands and also offers recreational opportunities for quality hunting. Many of the

livestock operators in the County are dependent upon federal lands for grazing. The area draws large numbers of hunters from all over the country due to the abundance of game birds, deer, antelope, and elk. Many local individuals and businesses depend upon spring and fall hunting to supplement their incomes.

III. Need

The Broadus Volunteer Fire Department is responsible for initial attack of forest fires on private and state land within the 2 million acres that make up Powder River County. To combat fire in this vast area, the fire department relies on the cooperation of the Biddle Fire District, Belle Creek Fire District and the Ashland Fire District. The department consists of 18 active, *volunteer* members (with required PPE) and 4 wildland engines. The volunteer department uses a 1969 3/4 ton truck; a 1975 3/4 ton truck, a 1979 1 ton truck and a 1992 F-350 fast attack truck. Local community support (donations and fundraisers), and support from Broadus and Powder River County has kept the department operating since 1922.

Powder River County's most valuable but scarce resource is water. There are very few water sources in the County that enable fire fighters to assist in or provide fire suppression. The fire department is dependent upon private reservoirs and springs for most of the fire suppression activities. With this fourth year of drought, many of these reservoirs simply have no water available. Natural springs and water wells have also dried up due to a lack of winter moisture and limited spring rains. Because of this effective fire suppression is often constrained.

The Bureau of Land Management provides fire suppression for eastern Montana along with the Department of Natural Resources on state and Federal lands. The Custer National Forest, Ashland Ranger District also provides initial attack support. Because of the size of the County, and the number of entities who have suppression or pre-suppression responsibilities, a more coordinated approach to fire is desired. This approach would bring together all of the entities involved, determine needs, look for skills, products, information to add value, and identify priority fire hazard areas and infrastructure needs in order to fight fire more effectively.

Impact of the 2000 Fires

The fires of 2000 broke all records on the Ashland Ranger District and Powder River County. Over 23 percent of the District was consumed in the Tobin and Stag Fire Complexes while numerous smaller fires burned thousands of acres elsewhere on the District and around Powder River County. Resources were tapped out early with the competing needs of fires in the western portion of the State which only re-enforced the need for better planning and preparation in Powder River County. Annually, on the Ashland Ranger District, there are over sixty-five lightning caused fires with many additional fires in the County. Fire suppression in eastern Montana is provided primarily from the Bureau of Land Management on State and Federal lands while local volunteer fire departments, respond on private land and assist with initial attack on State and Federal lands. With the size of the County, effective response is a daunting task.

IV. Purpose

The purpose of this proposal is to complete a Community Plan to reduce the immediate and long term risk from wildfire in Powder River County Montana. The Community Plan will be developed with the involvement of local government, the Broadus Volunteer Fire Department, fire suppression and jurisdictional agencies and landowners. The Plan will identify the needs and opportunities to reduce fire risks through increased coordination, identification of high risk areas and associated opportunities for fuel reduction, planning actions, and infrastructure and communication needs. Education and training through enhancement of existing agreements is also a focus of the proposal.

It is anticipated that the following objectives will be met through development of the proposed Community Plan:

- 1) Increased coordination between local government, the Volunteer Fire Department, individual volunteer fire fighters, local task forces and suppression and jurisdictional agencies will result in enhancement of our approach to fire prevention, suppression and mitigation. Entities involved would include Powder River County Commissioners, Broadus Volunteer Fire Department, Montana Department of State Lands, Bureau of Land Management, Forest Service and local "Task Forces" established to assist with initial suppression activities.
- 2) Development of a broad scale fuel and fire hazard assessment and a mitigation plan for areas within the county that have residences in the forested wildland interface or other identified high risk areas.
- 3) Development of a strategic map for placement of dry wells and identification of preliminary funding sources. Identification of other infrastructure, equipment and personnel needs and preliminary funding sources.
- 4) Development and implementation of planning requirements to reduce fire hazards within the wildland interface – particularly with anticipated "boom" growth from Coal Bed Methane (CBM) and coal track development.
- 5) Identification of resource information such as access roads, vegetation, number and kind of structures, water sources, evacuation routes etc. into a document and GIS map that can be used by all agencies.
- 6) Development and implementation of a local fire web page that will provide information on weather, lightning strikes, fire activity, etc. and also provide education updates and "fire wise" information.
- 7) Development of notification and evacuation procedures for wildfires or other catastrophic events.

V. Work Plan

It is anticipated that the proposed Community Plan would take eighteen months to two years to complete with increased complexity resulting from proposed energy development in the county. The work plan has been developed by quarter, starting with the Fall of 2002.

Phase I – Initial Organization, Preparation and Inventory – Fall 2002

This phase would be characterized by all interested and responsible parties coming together to develop a Task Force and Memorandum of Understanding as to the objectives, timeframes and expectations of all participants. Existing information would be reviewed and agreement reached for a common GIS data base. Data needs would be noted and methods and timeframes for collection determined. The parameters for the final data base would be determined along with a timeline for accomplishment. Initial public information and education needs would be determined including ideas on establishment of a fire web page. This phase would address number 1 in Section IV.

Phase II – Define the Fire Environment – Winter 2003

This phase would include detefining the fire history, fuels, topography, weather and fire potential. It would also include defining the human environment such as homes, roads, water sources, population trends and other uses. This phase would address number 5 in Section IV.

Phase III – Data Analysis – Spring 2003

This phase would include evaluating data and completing GIS layers that display both the environmental and social information. Maps would be evaluated to determine areas of high risk, opportunities for fuel reduction projects, infrastructure needs and evacuation plans. The fire web page would be completed and operational. This phase would address number 6 in Section IV.

Phase IV – Design a Stratergic Plan – Summer/Fall 2003

This phase would be the largest task in the planning process as it includes completion of the planning process as well as identification of actions for implementation. Outcomes of this phase include a narrative resulting form the data analysis above and identification of emergency water sources and locations for placement of dry wells, identification and prioritiazation of fuels reduction projects in high risk areas, evaluation of fire equipment and training needs to meet the plans action items, and identification and prioritization where detailed tactical planning needs to be completed. This phase would address number 2 and 3 in Section IV.

Phase V – Continued Public Outreach – Winter/Spring 2004

This phase would include working with the planning board to implement planning actions deemed necessary to minimize risk from wildfires and communication regarding evacuation plans. It would also include continued training and support for Local Tasks

Forces and sharing information resulting from the Strategic Plan. This phase would address number 4 and 7 in Section IV.

The Strategic Plan will have the following benefits:

- The plan will be seamless with respect to ownership and political jurisdiction.
- There will be more efficient fire suppression actions between agencies.
- There will be enhanced communication in times of high fire activity.
- There will be enhanced public information regarding fire activity at all times.
- Fire officials and private individuals will have credible data to make "fire wise" decisions.
- The plan will allow for the most effective combination of suppression, prevention fire education preparedness and fuel management for each location.

VI. Management Plan

The coordination and administration of this grant will be the responsibility of Powder River County. The County will organize and provide the leadership necessary for a successful plan. All receipts and disbursements will be itemized and accounted for including wages, contract payments, travel, supply items, equipment and other legitimate costs directly related to this planning effort. Such accounting will be submitted to the Montana Department of commerce on a quarterly basis.

VII. Budget Match and Narrative

**Community Fire Planning Assistance
Budget Form**

	I	II	III	IV
	Total requested	In-kind Applicant	In-kind Other	Total
<i>Administration 10%</i>				
1. Personnel	\$1,500			\$1,500
2. Supplies	\$200			\$200
3. Printing/Postage	\$500			\$500
4. Travel	\$300			\$300
<i>Total Admin</i>	<i>\$2,500</i>			<i>\$2,500</i>
<i>Activity</i>				
1. GPS/DATA	\$8,000	\$500	\$3,000	\$10,500
2. Fire Wise Assessment	\$3,000	\$1,000	\$2,000	\$8,000
3. Fuels Risk Assessment	\$7,000	\$1,000	\$2,000	\$10,000
4. Plan Document	\$2,500	\$2,000		\$5,000
5. Education	\$1,000		\$1,000	\$2,000
6. Fuels Reduction			\$4,000	\$5,000
7. Committee Work	\$1,000	\$3,000	\$3,000	\$7,000
TOTAL	\$ 25,000.00	\$7,500	\$15,000	\$47,500
<i>Percent of Total</i>		30%	60%	90%

Project Budget Narrative

Budget amounts applicable to the Community Planning Grant are as follows:

Personnel: Powder River County will handle all correspondence, payments, record keeping and other administrative functions necessary to complete this project. The Broadus Volunteer Fire Department will provide the county's coordination for this project and be responsible for organizing, preparing and administering contracts, gathering information from other agencies and keeping the project within budget and the established timeline.

Much of the project will be completed by *volunteers*. Estimated value on volunteers time is rated at \$10.00 per hour. Estimated time volunteers will spend on this project is approximately 750 hours for a total in kind value of \$7,500.

The US Forest Service will provide \$15,000 in contributed labor and services to provide inventory data, computer services, committee involvement, fire prevention, web page development and fuels project planning.

Travel: \$300 has been allocated for travel.

Supplies and Materials: General office supplies, printing and postage are accounted for under administration at 10%.

It is also anticipated that there may be equipment purchase needs under the category GPS/Data.

Contractual: It is anticipated that a contractor may be needed to complete GIS work and possibly to assist with completion of a Fuels Risk Assessment. This need is accounted for under the Plan Document and Fire Risk Assessments

VIII. Results

We will measure the success of this project by completion of the following tasks (within the timeframes and budget constraints discussed in the Budget Narrative):

- a Community Fire Planning Document and GIS map;
- improved coordination and communication between all agencies with fire suppression responsibilities;
- improved community information services and awareness through education;
- identification of areas of high fire risk and implementation of coordinated fuel reduction projects;
- identification of needed infrastructure and equipment such as key dry well sites and;
- Development of a local fire web page.

Overall the outcome of this project will result in a community that is better organized and prepared to respond to wildland fires.

BOARD OF COUNTY COMMISSIONERS
POWDER RIVER COUNTY
PO Box 270
Broadus, Montana 59317

Fax: 406-436-2151
Phone: 406-436-2657

Don McDowell, Broadus
Ray Traub, Broadus
Betty Aye, Broadus

May 15, 2002

Montana Department of Commerce
Attn: Fran Viereck, Program Officer
P.O. Box 200505
Helena, Montana 59620

Re: Community Planning for Fire Protection, Dept. of Commerce Grant

Dear Ms. Viereck,

Please find enclosed the Powder River County application for the Community Planning for Fire Protection grant. We appreciate the opportunity to apply for this grant in order to increase our county's coordination and communication abilities for fire planning.

We are pleased that with this effort we will be working with all entities involved with fire suppression, including State Lands, BLM, Forest Service, and our local volunteer fire department. If you have any questions regarding the application please contact Don McDowell at (406) 436-2657, PO Box 270, Broadus, MT 59317.

Powder River County Board of Commissioners certifies that the information contained in this application is, to the best of our knowledge, true and accurately represents the proposed project, and that all federal and state laws, regulations and requirement associated with this grant application will be complied with in good faith. We understand that additional information may be requested.

Thank you for your time and consideration. We look forward to hearing from you.

Sincerely,



Don McDowell
Chairman
Powder River County Board of Commissioners

PLANNING BOARD
PO BOX 270
BROADUS, MT 59317

MEMBERS:

Murr Isaacs, Pres., Broadus
Marcus Stevens, Vice-Pres., Ashland
Worth Schumacher, Broadus
Jim Collins, Biddle
Gene Smith, Olive
Dick Sturtz, Broadus

Office Phone: 406-436-2361
Fax: 406-436-2151

May 16, 2002

Montana Department of Commerce
Attn: Fran Viereck, Program Officer
P.O. Box 200505
Helena, Montana 59620

Re: Dept. of Commerce Grant

Dear Ms. Viereck,

As President of the Planning Board I would like to take this opportunity to express our support of the Powder River County Commissioners, on behalf of Powder River County, for taking this step forward in our county's future planning for wildfire risk reduction. As the number of drought years lengthen, planning of our cooperative agencies for fire suppression becomes increasingly more important.

We applaud the efforts of this Board for coordinating the involved agencies to pool financial resources and communication, especially in a county with significant state and federal acreage ownership. We believe this will provide an excellent basis as we move forward in our efforts to plan for all areas of our town and county's future.

Sincerely,



Murr Isaacs
President
Planning Board

DEPARTMENT OF NATURAL
RESOURCES AND CONSERVATION
MILES CITY



JUDY H. MARTZ, GOVERNOR

TELEFAX: (406) 232-3807
321 MAIN STREET

STATE OF MONTANA

EASTERN LAND OFFICE
PO BOX 1794
MILES CITY, MT 59301-1794
(406) 232-2034 OR 2045

CONSERVATION & RESOURCE DEVELOPMENT DIVISION
PO BOX 276
MILES CITY, MT 59301-0276
(406) 232-6359 OR 6460

Board of County Commissioners
Powder River County
Courthouse Square
Broadus, MT 59317-0270

RE: Powder River County Wildfire Management Plan Proposal

Dear Commissioners,

Please accept this as a letter of support for your planning effort to address the complexities of wildland fire.

As the Area Manager for the Eastern Land office of the DNRC in Miles City, MT., I appreciate the opportunity to provide support for your planning efforts in Powder River County.

I have worked with Powder River County during wildland suppression efforts over the previous 13 years. The wildland fire issue is more complex today than ever before. The public expectations and the requirements of suppression actions are much different now than in the past. The development of the wildland urban interface issue has produced a level of suppression and safety complexity that requires in-depth planning to successfully address.

Your planning efforts are built around the factors of increased coordination, interagency cooperation, fuel hazard reduction, strategic plans for suppression resource location, dissemination of information, and development of evacuation plans. These are the integral ingredients to a solid and well-rounded plan that fits all the pieces of the puzzle into a workable frame of reference.

The time to plan is now and not when the wildland fire events occur. By developing the plan and communication with cooperating agencies the efforts of all the available resources will not only be more timely but efficient and cost effective.

Respectfully,

Dwayne Andrews

Dwayne Andrews
Area Manager
Eastern Land Office, DNRC



United States
Department of
Agriculture

Forest
Service

Custer National Forest

Ashland Ranger District
P.O. Box 168
Ashland, MT 59003

File Code: 1500

Date: May 16, 2002

Montana Department of Commerce
Attn: Fran Viereck, Program Manager
P.O. Box 200505
Helena, Montana 59620

Dear Ms. Viereck,

Let me share with you my full and enthusiastic support for Powder River County's grant proposal to develop a county-wide wildfire plan. The Ashland Ranger District has a close association with Powder River County and looks forward to working with them to accomplish this important task. It is our intent to provide support in the following areas:

Hazardous Fuel Reduction

- Technical assistance to homeowners
- Continued volunteer fire department training
- Project coordination
- Project planning

Information and Education

- Distribution of educational materials
- Coordination of prevention and fire education efforts
- Assist with development of GIS information needs
- Assist with development of fire protection/fire management plans
- Assit with establishment of web page

Other

- Computer support
- Computer access and mapping
- Active participation on planning group

Once again I fully endorse this planning proposal to enhance our fire fighting effectiveness. Please feel free to contact me if you have any questions or if I can be of any assistance.

Sincerely,

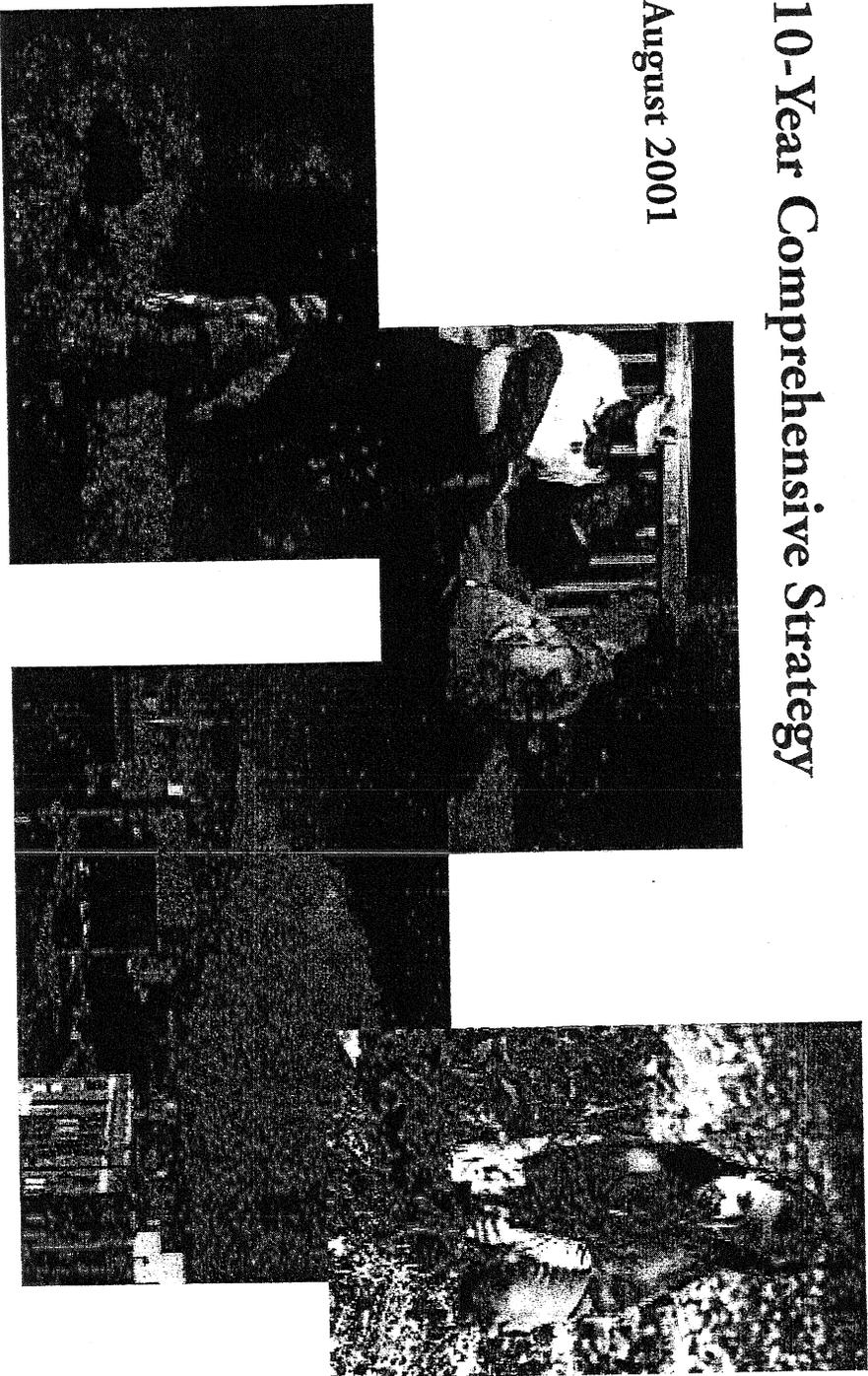
ELIZABETH A. MCFARLAND
District Ranger

ATTACHMENT 2

A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment

10-Year Comprehensive Strategy

August 2001



Contents

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Summary

A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment

10-Year Comprehensive Strategy

This strategy reflects the views of a broad cross-section of governmental and nongovernmental stakeholders. It outlines a comprehensive approach to the management of wildland fire, hazardous fuels, and ecosystem restoration and rehabilitation on Federal and adjacent State, tribal, and private forest and range lands in the United States. This strategy emphasizes measures to reduce the risk to communities and the environment and provides an effective framework for collaboration to accomplish this.

Congress directed the Secretaries of the Interior and Agriculture to work with the Governors to develop this strategy in the FY 2001 Interior and Related Agencies Appropriations Act (P.L. 106-291). The direction requires "close collaboration among citizens and governments at all levels," which, by extension, includes a geographically diverse group of people, representing all levels of government, tribal interests, conservation and commodity groups, and community-based restoration groups.

Core

Principles

A set of core principles was developed to guide the identification of goals for this strategy. These principles include such concepts as collaboration, priority setting, and accountability.

Goals

An open, collaborative process among multiple levels of government and a range of interests will characterize the fulfillment of this strategy. The end results sought by all stakeholders are healthier watersheds, enhanced community protection, and diminished risk and consequences of severe wildland fires. The primary goals of the 10-Year Comprehensive Strategy are:

- 1. Improve Prevention and Suppression*
- 2. Reduce Hazardous Fuels*
- 3. Restore Fire Adapted Ecosystems*
- 4. Promote Community Assistance*

This community-based approach to wildland fire issues combines cost-effective fire preparedness and suppression to protect communities and the environment with a proactive approach that recognizes fire as part of a healthy, sustainable ecosystem.

Framework for Collaboration

The multi-faceted nature of the issues and jurisdictions addressed by this strategy necessitates communication and collaboration across Federal and adjacent State, tribal, and private forest and range lands. While the line officers of the land management agencies are the principal decisionmakers concerning public lands, the collaborative framework, with clear roles and responsibilities, will assist in the implementation of this strategy across all ownerships and jurisdictions.

Information Sharing

This strategy recognizes that key decisions in setting restoration and fire and fuel management project priorities should be made at the local level. Consequently, there should be an ongoing process whereby the stakeholders exchange information necessary to make fully informed decisions. As part of the implementation plan to be developed for the strategy, an information system will be designed to facilitate information gathering and exchange.

Implementation Plan

Successful implementation of the 10-Year Comprehensive Strategy and the National Fire Plan is a top priority for the Department of Agriculture and Department of the Interior, as well as the Governors, tribes, and other interested stakeholders. An implementation plan will be developed to provide consistent and standard direction for each of the Federal and State partner agencies. The plan should include approaches and processes to implement the common purposes articulated in the strategy and the National Fire Plan in an integrated and cost-effective manner.

The Department of Agriculture and Department of the Interior will develop common and consistent national performance measures and reporting procedures for each action, identify common priorities, and set specific timeframes for accomplishments over the 10-year period. The actions in this strategy must be consistent with each agency's Strategic Plan.

By May 1, 2002, a detailed implementation plan will be developed in collaboration with the Governors to establish detailed and consistent operational ways of doing business between Federal and State agencies and tribal entities to ensure the Core Principles and Goals are met; financial and other resources are available and utilized in a integrated, targeted, and cost effective manner; legal and technical requirements are met; and a system to identify and promptly address implementation issues is established.

Conclusion

This strategy reflects the views of a broad cross-section of governmental and nongovernmental interests. It was developed in partnership among all interested stakeholders. If implemented, it will reduce the risks of wildfire to communities and the environment and build collaboration at all levels of government.

Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment

10-Year Comprehensive Strategy

Preface

In August 2000, then-President Clinton directed the Secretaries of Agriculture and the Interior to develop a response to severe wildland fires, reduce fire impacts on rural communities, and ensure effective firefighting capacity in the future. The result was the National Fire Plan, which Congress later supported through appropriations language in the FY 2001 Appropriations Act and other written direction. As part of its direction, Congress mandated several reporting requirements including the creation of a coordinated national 10-Year Comprehensive Strategy. It also called on the Secretaries to work collaboratively and cooperatively with Governors in the development of this strategy and as full partners in planning, decisionmaking, and implementation.

This resulting strategy has been developed by Federal, State, tribal, and local government and nongovernmental representatives for the purpose of improving the management of wildland fire and hazardous fuels, as well as meeting the need for ecosystem restoration and rehabilitation in the United States on Federal and adjacent State, tribal, and private forest and range lands. In addition, this strategy outlines a new collaborative framework to facilitate implementation of proactive and protective measures that are appropriate to reduce the risk of wildland fire to communities and the environments.

Meeting the objectives of the strategy requires a coordinated effort across landscapes to restore and maintain the health of fire-prone ecosystems. Because of the breadth of this challenge, this strategy will be most successful if it involves collaborative input from local, tribal, State, and Federal governments, as well as interested stakeholders to best inform private and public land managers who are actively involved in decisionmaking on their respective lands.

This strategy recognizes the importance of suppressing fires, especially those near homes and communities, however, there needs to be a continued shift in fire management emphasis from a reactive to a proactive approach. It is designed to foster a proactive, collaborative, and community-based approach to reducing wildland fires that works side-by-side with effective traditional approaches to fire suppression and fire-fighting readiness. It is an effort to move from treating symptoms toward

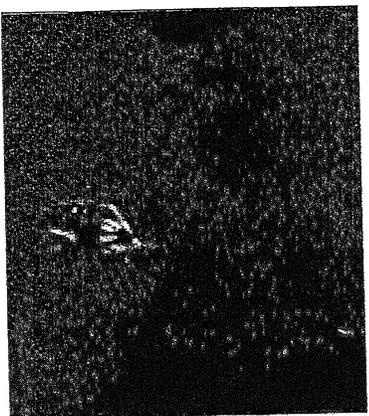
addressing the underlying problems. For example, the traditional reactive approach to wildland fire considers fire a catastrophe by focusing exclusively on suppression and readiness and allocating resources on an emergency basis. This results in short-term intense activity and impacts on the land and communities.

A collaborative, community-based approach to wildland fire combines cost-effective fire preparedness and suppression to protect communities and environments with a proactive approach. This approach recognizes fire as part of the ecosystem; focuses on hazardous fuels reduction, integrated vegetation management, and firefighting strategies; and allocates and utilizes resources in a cost-effective manner over a long-term basis. A community-based approach relies on local knowledge and develops objectives to manage long-term activities in communities and environments.

This combined and enhanced approach is reflected in many components of this strategy. This new approach assures a more active collaboration between the fire management organizations and communities.

Background

The 2000 fire season was one of the worst in 50 years. The scale and intensity of the 2000 fire season capped a decade that was characterized by a dramatic rise in the number of large wildland fires, the costs associated with fire suppression, and the values at risk in the wildland urban interface. Approximately 123,000 fires burned more than 8.4 million acres. The total acres burned represent more than twice the 10-year national average. At times, nearly 30,000 personnel were on the fire lines, including the military and firefighters from other countries. More than \$2 billion from Federal accounts was spent suppressing wildland fires in 2000. This amount does not include State and local firefighting suppression costs, direct and indirect economic losses to communities, loss of property, and damage to ecosystems.



The purpose of a long-term strategy for reducing wildland fire risks to communities and the environment is meant, in part, to correct problems associated with the long-term disruption in natural fire cycles. This disruption has increased the risk of severe wildland fires on some fire-prone ecosystems. The introduction of now pervasive invasive species, such as cheat-grass, has also increased the wildland fire threat. At the same time, communities have grown into the forests and range lands, increasing the risk to people, their homes, and water supplies. The States have identified many communities at risk from wildland fire, including approximately 11,000 adjacent to Federal lands.

Despite increasing expenditures on wildland fire suppression over the last 20 years, the average acreage burned nationally has not decreased. As suppression expenditures have increased, we continue to experience an increase in loss of property and greater impacts to communities and the environment. Much of this is due to the continuing growth of wildland-urban interface communities. In response to the scope of the increasing problem, both State and Federal agencies have begun advocating a new approach to wildland fires—one that would address the root of the problem rather than react only when faced with costly emergencies.

Federal Actions

The Federal Government responded to the rise in public concern that emerged from the summer of 2000. Building on ongoing initiatives, Congress directed the Federal land management agencies to work in partnership with Governors on a national, long-term strategy for the restoration of fire-prone ecosystems. Congress provided this direction in the committee report for the FY 2001 Interior and Related Agencies Appropriations Act (P.L. 106-291):

“The Secretaries should also work with the governors on a long-term strategy to deal with the wildland fire and hazardous fuels situation, as well as needs for habitat restoration and rehabilitation in the nation. The managers expect that a collaborative structure, with the states and local governments as full partners, will be the most efficient and effective way of implementing a long-term program.”

“The managers are very concerned that the agencies need to work closely with the affected states, including governors, county officials and other citizens. Successful implementation of this program will require close collaboration among citizens and governments at all levels. The managers direct the Secretaries to engage governors in a collaborative structure to cooperatively develop a coordinated National 10-Year Comprehensive Strategy with the states as full partners in the planning, decision making, and implementation of the plan. Key decisions should be made at local levels.”

The specific instructions given by Congress resulted, in part, from a proposal made by the Western Governors' Association and reflected agreements made between the Governors and the Secretaries of Agriculture and the Interior during a September 2000 meeting in Salt Lake City, Utah. They agreed that, guided by good science and a goal of restoring ecosystem health, many treatments could be done proactively. For example, conducting prescribed fire and under-story thinning may reduce the threat of severe wildland fire while simultaneously contributing to ecosystem health. The Governors called for full State and local involvement at all levels of planning and decisionmaking, implementation of projects on a landscape scale across ownerships, and the establishment of, and sufficient funding for, a long-term strategic plan for the overall restoration of fire-prone ecosystems on Federal and adjacent State, tribal, and private forests and rangelands.

The Congressional instructions also corresponded well with the ongoing efforts of other State and Federal organizations working on multi-year strategies to reduce the incidence and impacts of wildland fire, treat hazardous fuels, and promote habitat restoration and rehabilitation. A list of support documents used to develop this strategy is provided in Appendix I.

To make this strategy more citizen-centered, a geographically diverse group of people, representing all levels of government, tribal interests, conservation and commodity groups, and community-based restoration groups contributed to the development of this strategy. These individuals are listed in Appendix II.

Core Principles, Goals, and Actions

Based on the interests and needs of all stakeholders, a set of core principles was developed to guide the identification of goals for this strategy. Associated with each of the identified goals listed below are guiding principles that form the basis for the goal. Finally, for each goal, a set of actions have been identified that will facilitate progress toward reaching each of these goals. Together, the goals, guiding principles, and actions, provide the foundation for the implementation plan.

Successful implementation of this strategy requires a collaborative process among multiple levels of government and a range of interests resulting in healthier watersheds, enhanced community protection, and diminished risk and consequences of severe wildland fires.

The following core principles are overarching for all goals:

Collaboration – Facilitate a collaborative approach at the local, regional, and national levels.

Priority Setting – Emphasize the protection of communities, municipal, and other high-priority watersheds at risk. Long-term emphasis is to maintain and restore fire prone ecosystems at a landscape scale.

Accountability – Establish uniform and cost-effective measures, standards, reporting processes, and budget information in implementation plans that will fold into the Government Performance and Results Act process.

The goals of the 10-Year Comprehensive Strategy are:

1. *Improve Prevention and Suppression*
2. *Reduce Hazardous Fuels*
3. *Restore Fire Adapted Ecosystems*
4. *Promote Community Assistance*

Goal 1. Improve Prevention and Suppression

Guiding Principles:

Firefighting Readiness – Public and firefighter safety is the first priority in all fire management.

Prevention Through Education – Reduce the risks to homes and private property through prevention education.

Actions

- Improve Federal, State, and local firefighting resource capability and readiness to protect communities and the environment from wildland fires.
- Reduce the incidence of injury to life and property resulting from catastrophic wildland fires.
- Expand outreach and education to homeowners and communities about fire prevention through use of programs such as “Firewise.”
- Develop a consistent preparedness planning model, among the Federal agencies and others, that analyzes cost-effective fire protection among all administrative boundaries. In developing the model, consider State and local protection needs and resources in the wildland-urban interface.



Goal 2. Reduce Hazardous Fuels

Guiding Principle:

Hazardous Fuel Reduction – Prioritize hazardous fuels reduction where the negative impacts of wildland fire are greatest.

Actions

- Reduce the total number of acres at risk to severe wildland fire.
- Ensure communities most at risk in the wildland-urban interface receive priority for hazardous fuels treatment.
- Expand and improve integration of the hazardous fuels management program to reduce severe wildland fires to protect communities and the environment.
- Incorporate public health and environmental quality considerations in fire management activities undertaken for the hazardous fuels management program.
- Develop smoke management plans in conjunction with prescribed fire planning and implementation.
- Develop strategies to address fire-prone ecosystem problems that augment fire risk or threaten sustainability of these areas.
- Assure maintenance of areas improved by fuels treatment by managing activities permitted on the restored lands to maintain their resiliency.
- Conduct and utilize research to support the reduction of hazardous fuels in wildland urban interface communities and environments.
- Ensure local environmental conditions are factored into hazardous fuels treatment planning.



Goal 3. Restore Fire Adapted Ecosystems

Guiding Principles:

Rehabilitation –Prevent invasive species and restore watershed function and biological communities through short-term rehabilitation.

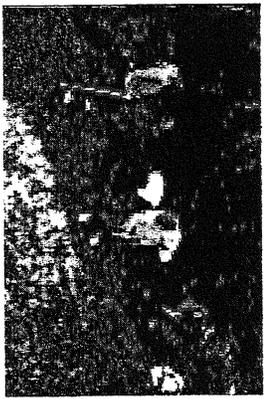
Restoration – Restore healthy, diverse, and resilient ecological systems to minimize uncharacteristically severe fires on a priority watershed basis through long-term restoration.

Using Science and Information –Promote the development and use of the best available science along with local and indigenous knowledge.

Monitoring – Monitor restoration and rehabilitation projects for effectiveness and share the results in order to facilitate adaptive implementation.

Actions

- In the short-term, perform burned area emergency stabilization and rehabilitation work to protect life and property, protect municipal watersheds, and prevent further degradation of critical cultural and natural resources.
- In the long-term, restore burned areas and repair and improve lands unlikely to recover naturally from severe fire damage.
- Place priority on at risk watersheds that have been damaged by wildland fire.
- Promote the establishment of sources of native seed and other plant material.
- Promote awareness of and training in the use of minimum impact suppression activities.
- Promote research and effective use of restoration and rehabilitation treatments.
- Eradicate or minimize the rate of spread of invasive species that negatively impact natural fire cycles and fire-adapted ecosystems.
- Improve the capability to decrease invasive species in burned areas through research and development.
- Research interactions between fire, land management actions, and other disturbances, and apply lessons learned to future management decisions.



**Goal 4.
Promote
Community
Assistance**

Guiding Principles:

Increase Local Capacity – Where appropriate, stimulate local capacity to accomplish hazardous fuels reduction and rehabilitation work.

Incentives – Promote better fire prevention planning and actions in local communities through technical assistance and cost-sharing incentives.

Biomass Utilization – Employ all appropriate means to stimulate industries that will utilize small-diameter, woody material resulting from hazardous fuel reduction activities, such as for biomass electric power, pulp and paper-making, and composite structural building materials.

Actions

- Reduce the losses to communities and individuals from wildland fire.
- Promote markets for traditionally underutilized wood as a value-added outlet for by-products of hazardous fuel reduction and ecosystem restoration efforts.
- Promote opportunities to continue and enhance sustainable livestock grazing as part of protection and restoration strategies.
- Increase incentives for private landowners to address defensible space and fuels management needs on private property through local land use policies.
- Promote local government initiatives to implement fire-sensitive land use planning.
- Promote public knowledge and understanding of wildland fire, including risks and the role of fire in natural ecosystem processes.



Framework for Collaboration

The multi-faceted nature of the problems addressed by this strategy necessitates communication and collaboration across private and public lands, administrative boundaries, geographic regions, and areas of interest. This strategy should enhance collaboration among all levels and all parties for planning, decisionmaking, implementation, monitoring, and learning, without altering the responsibilities or statutory authorities of participating Federal or State agencies. While the line officers of the land management agencies are the principal decisionmakers concerning public lands, the following framework, with clear roles and responsibilities, should assist in the implementation of this strategy:

National Level – The Secretaries of Agriculture and the Interior will implement the stated goals in full partnership with the Governors. The Secretaries will also work closely with the Governors and Congress on policy and budget matters affecting implementation of the strategy.

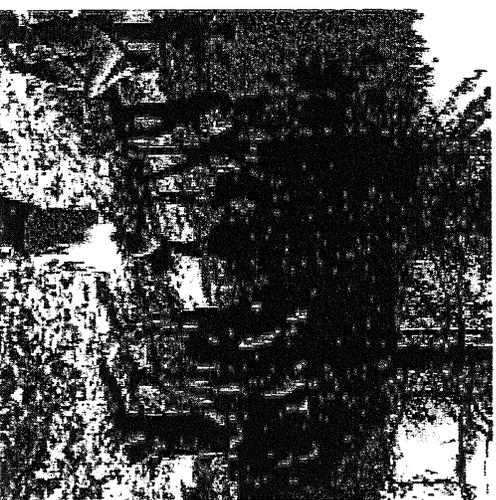
Regional Level – Regional, State, local, tribal, or area administrators or other Federal officials, tribal leaders, and Governors will collaborate and coordinate across jurisdictions to facilitate accomplishments at the local level.

Local Level – Successful implementation will include stakeholder groups with broad representation including Federal, State, and local agencies, tribes and the public, collaborating with local line officers on decisionmaking to establish priorities, cooperate on activities, and increase public awareness and participation to reduce the risks to communities and environments.

Ongoing communication among these three levels should facilitate the exchange of technical information to make fully informed decisions and should include specific outreach and coordination efforts.

This strategy recognizes that key decisions in setting restoration and fire and hazardous fuel management project priorities should be made by the local land manager.

As such, there should be an ongoing process whereby the local, tribal, State and Federal land management, scientific, and regulatory agencies exchange the requisite technical information to make fully informed decisions. At a minimum, the information that is shared should include assessment of the communities at risk, current vegetative conditions with



respect to the likelihood of severe wildland fire, threats to key habitat and water quality (such as post-fire erosion), air quality and local economies, and the risks and trade-offs inherent to active management. This process should include specific outreach and coordination efforts that:

- Allow for complete, current, and cooperative information sharing at all levels to assure maximum resource, policy, and scientific informational exchange.
- Coordinate with local, tribal, State, and Federal governments and agencies and others in documenting specific resource needs, goals and objectives.
- Conduct appropriate outreach to communicate the operational needs of implementing this strategy.
- Include as part of the Implementation Plan to be developed for the strategy, an information system designed to facilitate information gathering and exchange.

Implementation Plan

Successful implementation of this strategy and the National Fire Plan is a top priority for the Department of Agriculture and Department of the Interior agencies, as well as the Governors, tribes, local governments, and other interested stakeholders. An Implementation Plan will be developed to provide consistent and standard direction for each of the Federal and State partner agencies, including approaches and process carried out to implement the common purposes articulated in the strategy and the National Fire Plan.

One of this strategy's Core Principles is "*accountability* – *Establish uniform and cost-effective measures, standards, reporting processes, and budget information in implementation plans that will fold into the Government Performance and Results Act process.*" The Departments of Agriculture and the Interior plan to develop common and consistent national performance measures and reporting procedures for each performance goal, identify common priorities, and set specific timeframes for accomplishments. Measures of success should be developed for each goal. These measures should be adjusted as appropriate based on the results of monitoring.

To be more effective in fire prevention and suppression planning, the Department of Agriculture and Department of the Interior agencies will continue to work together, in cooperation with the States, to develop action items in the Implementation Plan that will lead to improvements in the consistency and effectiveness of their fire management organizations and planning models.

The Departments expect that by May 1, 2002, a detailed implementation plan will be developed in coordination with the Governors to ensure that goals are met; agencies establish detailed and consistent operational ways of doing business among Federal and State agencies and tribal and local entities; financial and other resources are available and utilized in an integrated, targeted, and cost-effective manner; legal and technical requirements are met; and a system to identify and promptly address implementation issues is established. The implementation plan will also address collaborative capacity at all levels of governance by emphasizing the funding of projects developed through collaborative processes and implemented in a cost-effective manner.

Accomplishment tracking and reporting processes should incorporate common performance goals and measures in order for the agencies to continue their efforts to institutionalize and document learning experiences, and to improve the link from activities and budget to performance and results. Each action must be linked to agency Strategic Plans and supported by specific goals and objectives.

Funding the Comprehensive Strategy

The attainment of the goals of the strategy requires an investment of resources from across the stakeholder community—Federal, State, and local governments, landowners, and other nongovernmental interests. Market-based approaches, wherever feasible and cost effective, that offset the cost of hazardous fuel reduction are encouraged when appropriate. Where practical and appropriate, investment decisions should follow the fundamental strategic protocol of stakeholder collaboration and place scarce dollars where there is broad agreement on priorities. As prevention, restoration, and hazardous fuels reduction goals are accomplished, suppression needs are expected to diminish. The Department of Agriculture and the Department of the Interior will commit funding to the strategy consistent with national priorities and within the framework of the Federal budget.

Conclusion

This strategy reflects the views of a broad cross-section of governmental and nongovernmental interests. It was developed in partnership among interested stakeholders. The foundation of the strategy includes three core principles: collaboration, priority setting, and accountability. The goals of the strategy are to improve prevention and suppression, reduce hazardous fuels, restore fire-adapted ecosystems, and promote community assistance. An Implementation Plan will be developed to provide consistent and standard direction for each of the Federal and State partner agencies including approaches and process carried out to implement the common purposes articulated in the strategy and the National Fire Plan. When implemented, the strategy will contribute to reducing the risks of wildfire to communities and the environment and build collaboration at all levels of government.

GLOSSARY

Ecosystem – A spatially explicit, relatively homogeneous unit of the Earth that includes all interacting organisms and components of any part of the natural environment within its boundaries. An ecosystem can be of any size, e.g., a log, pond, field, forest, or the Earth's biosphere (Society of American Foresters, 1998).

Ecosystem Integrity – The completeness of an ecosystem that at geographic and temporal scales maintains its characteristic diversity of biological and physical components, composition, structure, and function (Cohesive Strategy, 2000).

Resiliency – The capacity of an ecosystem to maintain or regain normal function and development following disturbance (Society of American Foresters, 1998).

Fire-prone ecosystem – Ecosystems that historically burned intensely at low frequencies (stand replacing fires), those that burned with low intensity at a high frequency (understory fires), and those that burned very infrequently historically, but are now subject to much more frequent fires because of changed conditions. These include fire-influenced and fire-adapted ecosystems (Cohesive Strategy, 2000).

Firewise – A public education program developed by the National WildlandFire Coordinating Group that assists communities located in proximity to fire-prone lands. (For additional information visit the Web site at: <http://www.firewise.org>)

Indigenous knowledge – Knowledge of a particular region or environment from an individual or group that lives in that particular region or environment, e.g., traditional ecological knowledge of American Indians (FS National Resource Book on American Indian and Alaskan Native Relations, 1997).

Performance measure: A quantitative or qualitative characterization of performance (Government Performance and Results Act of 1993).

Burned Area Rehabilitation – The treatment of an ecosystem following disturbance to minimize subsequent effects (1995 Federal Wildland Fire Policy)

Restoration – The active or passive management of an ecosystem or habitat toward its original structure, natural complement of species, and natural functions or ecological processes (Cohesive Strategy, 2000).

Severe wildland fire (catastrophic wildfire) – Fire that burns more intensely than the natural or historical range of variability, thereby fundamentally changing the ecosystem, destroying communities and/or rare or threatened species/habitat, or causing unacceptable erosion (GAO/T-RCED-99-79) (Society of American Foresters, 1998).

Wildland urban interface – The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels (Glossary of Wildland Fire Terminology, 1996).

APPENDIX I

List of Support Documents

The following is a list of support documents used to build this strategy:

- “Action & Financial Plans for USDA & DOI – National Fire Plan Implementation” – 2002 annual plans in draft, USDA Forest Service (USFS) and the Department of the Interior (DOI), 2001.
- “Action and Financial Plans for the Departments of Agriculture and the Interior – National Fire Plan Implementation Strategy” – 2001 (<http://www.fireplan.gov/references>).
- “An Agency Strategy for Fire Management” – USFS, 2000 (http://www.fs.fed.us/fire/planning/USDA_Report.pdf).
- “Course to the Future: Positioning Fire and Aviation Management” – USFS, 1995.
- Danks, Cecilia. 2000. Community-Based Fire Management Strategy: Integrating Social and Ecological Objectives in a Fire-Driven Ecosystem. A Policy Report of the Watershed Research and Training Center, Hayfork, CA. Draft.
- Danks, Cecilia. 2000. “The Roles of Forest Communities in Forest Fire Management: Socioeconomic Implications.” A paper presented at the International Association for the Study of Common Property Biennial Conference, May 31- June 4, 2000, Bloomington, IN.
- The Federal Williland Fire Management Policy” – Updated and signed by all involved federal agencies and the National Association of State Foresters (NASF) in 2001(<http://www.fireplan.gov/references>).
- “Fire Related Considerations and Strategies in Support of Ecosystem Management” – USFS, 1993.
- General Accounting Office, *Western National Forests: A Cohesive Strategy is Needed to Address Catastrophic Williland fire Threats*, April 1999, (GAO/RCED-99-65) (<http://www.gao.gov>).
- “Integrating Fire and Natural Resource Management – A Cohesive Strategy for Protecting People by Restoring Land Health” – DOI 2001 (<http://www.fireplan.gov/references>).

- Interim Air Quality Policy on Wildland and Prescribed Fires (<http://www.epa.gov/ttn/caa1/t1/metal/m27340.html>).
- “Land Management Considerations in Fire-Adapted Ecosystems: Conceptual Guidelines” – USFS, 1996.
- “Managing the Impacts of Wildland fires on Communities and the Environment – The National Fire Plan” – DOI in USFS, 2001, (<http://www.fireplan.gov/references/>).
- “The National Wildland Fire Policy” – in draft form by the NASF, 2001.
- “Policy Implication of Large Fire Management: A Strategic Assessment of Factors Influencing Costs” – USFS, 2000, (http://www.fs.fed.us/fire/planning/Large_Fire_Mgrt.pdf).
- “Protecting People and Sustaining Resources in Fire-adapted Ecosystems - A Cohesive Strategy” – USFS 2000 (<http://www.fs.fed.us/pub/fam/>).
- Western Governors’ Association (WGA) policy resolution 00-041: “Improving Forest Ecosystem Health on Federal Lands: Next Steps,” (<http://www.westgov.org/wga/policy/00/00041.pdf>).
- WGA policy resolution 99-011: “Improving Forest Ecosystem Health on Federal Lands,” (<http://www.westgov.org/wg/policy/99/99011.htm>).
- WGA policy resolution 99-013: “Principles for Environmental Management in the West” (The Enlbra Principles), (<http://www.westgov.org/wga/policy/99/99013.htm>).

Appendix II Document Preparation

The Department of the Interior and the Department of Agriculture collaborated with the Governors in the development of this document. The Governors also consulted with and utilized input from a broader group of interested stakeholders, including the following individuals.

Greg Aplet, The Wilderness Society

Dwight Atkinson, U.S. Environmental Protection Agency

Enoch Bell, USDA Forest Service, Pacific Southwest Experiment Station

Chuck Burley, American Forest Resource Council

Jason Campbell, National Cattlemen's Beef Association

Stan Coloff, U.S. Geological Survey

Julia Doermann, Oregon Governor's Office

Greg Fitch, New Mexico Department of Forestry

Gene Francisco, Wisconsin State Forester or Alternate

John Glenn, U.S. Bureau of Land Management

John Harja, Utah Governor's Office

John Howard, National Association of Counties

Jim Hubbard, National Association of State Foresters

Jim Hull, Texas State Forester

Susan Johnson, USDA Forest Service

Lynn Jungwirth, Communities Committee of the 7th American Forest Congress

James Lawrence, Western Council of State Foresters

Paige Lewis, National Association of State Foresters

John McGee, Idaho Governor's Office

Don Moranic, Intertribal Timber Council

Paul Orbuch, Western Governors' Association

Bill Pierce, U.S. Department of the Interior

Steve Pedigo, USDA Forest Service

Rich Phelps, USDA Forest Service

Art Reese, State of Wyoming

Sarah Robertson, National Interagency Fire Center

Rick Sayers, U.S. Fish and Wildlife Service

Randy Tweren, National Marine Fisheries Service

Appendix III Individuals Who Commented

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Carothers, William: USDA Forest Service
Cooper, Tom
Cross, Frank J.: USDA Forest Service
Dozier, Alan: Georgia Forestry Commission
Eckert, Gregory E.: U.S. Department of the Interior, National Park Service
Evers Louisa: U.S. Department of the Interior, Bureau of Land Management
Fisher, Mike: U.S. Department of the Interior, Bureau of Land Management
Freemuth, John: Andrus Center for Public Policy
Hendricks, Robert: USDA Forest Service
Huffman, Mary: The Nature Conservancy, Florida
Hull, Jim: Texas State Forest Service
Johnson, Marlin: USDA Forest Service
Juska, Andrew: Collins Pine Company
Kuntz, Tom: Red Lodge Rural Fire District
Lawrence, Nathaniel "Niel": National Resources Defense Council
Leenhouts, Bill: U.S. Department of the Interior, Fish and Wildlife Service
Mastic, Larry: USDA Forest Service
Mobley, Melody: USDA Forest Service
National Association of State Foresters
National Cattlemen's Beef Association
Nummy, Verde: Alabama State Forest Service
United States Department of Interior (consolidated comments)
Quigley, Thomas M.: USDA Forest Service
Rafopoulos, Steve: Colorado Wool Growers Association
Robinson, Tom: Grand Canyon Trust
Samman, Safiya: USDA Forest Service
Sapsis, David: California Department of Forestry
Southard, Lou: Virginia Department of Forestry

Stephens, Scott L.: University of California at Berkeley
Steward, Frank: Quincy Library Group
Stone, James: USDA Forest Service
Strobel, Phillip: U.S. Environmental Protection Agency
Surtano, Elaine: U.S. Environmental Protection Agency
Swan, Larry: USDA Forest Service
The Watershed Research and Training Center, CA
Williams, Jerry T.: USDA Forest Service
Young, Bobby: Texas State Forest Service

ATTACHMENT 3



Federal Register

Friday,
August 17, 2001

Part III

**Department of
Agriculture**

Forest Service

**Department of the
Interior**

Bureau of Indian Affairs
Bureau of Land Management
Fish and Wildlife Service
National Park Service

**Urban Wildland Interface Communities
Within the Vicinity of Federal Lands That
Are at High Risk From Wildfire; Notice**

highest-risk communities, and setting priorities for treatments in FY 2002. This collaborative planning process for large, multi-jurisdictional projects, potentially affecting many diverse resource components, cannot be completed quickly. The completion of Federally mandated planning, consultation, and environmental compliance activities for projects associated with the large number of communities remaining to be addressed will require significant time and effort. The Federal agencies, working with their State, Tribal, and local partners, must accurately assess the level of wildfire risk and types and extent of treatments required to mitigate this risk. In some cases, this may require revising land management plans and preparing new environmental assessments or environmental impact statements. The Secretaries are beginning to increase staff and contracting capabilities to address this issue. In order to achieve significant results within a reasonable time period, the Federal agencies and their partners must balance the allocation of available funding between planning future projects and implementing those that are ready now. Most projects planned for implementation in FY 2001 were begun two years prior to the National Fire Plan publication, and do not necessarily reflect the emphasis on treatment for urban wildland interface communities. Projects in FY 2002 and beyond will more closely address wildfire risk associated with the list of communities in this notice.

• **Community Awareness and Support:** The States, Federal agencies, and Tribes are working with many communities to build an awareness of wildfire risk in the urban wildland interface, and to educate homeowners and stakeholders about effective steps that should be taken to mitigate this risk. In many areas, multiple land ownerships and jurisdictions have made it difficult for all parties to agree on a course of action. In some cases, further effort is required to obtain agreement on the types of treatments that will result in acceptable impacts as well as hazard mitigation. The Secretaries believe that these problems must be resolved at the local level, working with all interested parties and applying the best available science. The collaborative interagency groups that developed the community lists will continue to work with local communities to define risk reduction projects that will result in significant positive impacts within acceptable time frames.

• **Lack of Implementation Capability:** On-the-ground implementation of fuel

reduction projects around urban wildland interface communities will require a trained and available workforce, not only to implement project prescriptions, but also to assist communities with utilization or disposal of removed vegetative materials. Pursuant to Congressional direction, the Secretaries will seek to engage local workers and businesses in implementing these efforts. In many areas, these local resources will need time and assistance in preparing for this opportunity; program effectiveness will likely improve over time once stability and trust is built with local partners. Federal and State agencies will also need to develop trained personnel to facilitate the contracting requirements associated with the implementation of hazardous fuel reduction projects.

• **Additional Funding Needs:** Funding continuity in future years will be needed to continue to address the needs of communities in the urban wildland interface. The Secretaries will evaluate their needs based on information from the 2001 implementation process, including the scope and progress made, and will keep Congress and the Administration apprized as the full extent of funding needs is determined.

• **Federal Role:** The Federal government will prioritize projects where the wildfire threat is clearly coming from Federal land. In cases where there are wide buffers of State and private land between a community and Federal land, the agencies will work with local partners to determine how best to fund projects when private or State lands are an equal or greater factor contributing to the wildfire risk of a community. As discussed under "Planning Requirements," the interagency/Tribal groups at the State level are in the process of defining projects and will consider a variety of factors in setting priorities for treatments in 2002.

The updated list of urban wildland interface communities in the vicinity of Federal lands at high risk from wildfire is set out at the end of this notice.

Dated: August 9, 2001.

For the Department of Agriculture.

Dale N. Bosworth,
Chief, USDA Forest Service.

Dated: August 10, 2001.

For the Department of the Interior.

P. Lynn Scarlett,
Assistant Secretary for Policy, Management
and Budget.

Communities in the vicinity of Federal lands at risk from wildfire

Footnote (1) indicates that one or more treatments are planned or ongoing for this community in FY 2001. Footnote (2) indicates communities in the vicinity of Federal lands other than those managed by the Departments of Agriculture and the Interior.

Alcan, AK
Allakaket, AK
Anchorage, AK
Crooked Creek, AK
Dot Lake, AK
Dry Creek, AK
Fort Greely, AK
Funny River, AK
Healy Lake, AK
Lime Village, AK
Mcgrath, AK
Nikiski, AK
Nimilchik, AK
Northway, AK
Northway Junction, AK
Northway Village, AK
Nulato, AK
Salamatof, AK
Tanacross, AK¹
Tok, AK

Bishop, AL
Bridgeport, AL
Burnstown, AL
Central Heights, AL
Cherokee, AL
Cloverdale, AL
Dadeville, AL
Daviston, AL
Fort Payne, AL
Franklin, AL
Gravelly Springs, AL
Lime Kiln, AL
Maud, AL
Mount Carmel, AL
Mount Hester, AL
Mynot, AL
New Site, AL
Oakland, AL
Rhodesville, AL
Stevenson, AL
Threet, AL¹
Tuskegee, AL
Waterloo, AL

Abbott, AR
Aberdeen, AR
Acorn, AR
Alamo, AR
Alpine, AR²
Altus, AR²
Aly, AR
Appleton, AR
Ashdown, AR²
Athens, AR
Avant, AR
Banks, AR
Barling, AR
Bates, AR
Big Flat, AR
Big Fork, AR

Glade, MS
 Gloster, MS
 Goat Island, MS²
 Gravestown, MS
 Green Acres, MS
 Gulfport, MS¹
 Gumbranch, MS
 Guntown, MS
 Halfloy Creek, MS²
 Hamilton, MS²
 Handaway Pond, MS
 Hanson's Landing, MS²
 Harmontown, MS²
 Harnerhill, MS
 Helena, MS¹
 Hermanville, MS
 Hickory Flat, MS
 Higdon, MS
 Hillsboro, MS
 Holcut, MS²
 Holly Springs, MS
 Hollybluff, MS
 Homewood, MS
 Homochitto, MS
 Hopes Spur, MS²
 Houlika, MS
 Houston, MS
 Humphrey's Cove, MS²
 Ireland, MS
 Jackson, MS
 Janice, MS
 John Kyle St Park, MS
 Kennolia, MS
 Kiln, MS²
 Kings, MS
 Kings Circle, MS
 Kingston, MS
 Kinkaide Cove, MS²
 Kirby, MS
 Kirkville, MS
 Knoxville, MS
 Kolola Springs, MS²
 Koscuisko, MS
 Lake, MS
 Lake Center, MS
 Lake Monroe, MS²
 Larue, MS
 Latimer, MS
 Laws Hill, MS²
 Learned, MS
 Leesdale, MS
 Lena, MS
 Little Springs, MS
 Lizana, MS
 Loakfoma, MS
 Longbeach, MS
 Lorman, MS
 Louin, MS
 Louisville, MS
 Ludlow, MS
 Lumberton, MS
 Lynn Creek, MS
 Maben, MS
 Macedonia, MS
 Madden, MS
 Madison, MS
 Madisonville, MS
 Mantachie, MS
 Mantee, MS
 Mashulaville, MS
 Mathiston, MS
 Maxie, MS
 Mcadams, MS
 Mcbride, MS
 Mccallcreek, MS

Mchenry, MS¹
 Mckinley Creek, MS²
 Mclain, MS
 Mclaurin, MS
 Mcville, MS
 Meadville, MS
 Millcreek, MS
 Mingo, MS
 Monroe, MS
 Montpelier, MS
 Montrose, MS
 Moores Mill, MS²
 Morton, MS
 Moselle, MS
 Mosspoint, MS
 Myrick, MS
 Myrtle, MS
 Natchez, MS
 Natcheztracers, MS
 Naval Air Station, MS²
 New Hamilton, MS²
 Newaugusta, MS
 Newton, MS
 Nicholson, MS²
 Oak Dale Park, MS²
 Oceansprings, MS¹
 Ofahoma, MS
 Okatibbee Lake, MS
 Oktoc, MS
 Oldham, MS²
 Orange, MS
 Ovet, MS
 Oxford, MS
 Paden, MS²
 Palmetto, MS
 Parkersburg, MS
 Pascagoula, MS
 Passchristian, MS
 Pearl River, MS
 Pearlinton, MS²
 Pecan, MS¹
 Perkinston, MS
 Perrytown, MS
 Philadelphia, MS²
 Picayune, MS²
 Pinedale, MS
 Pineville, MS
 Pittman, MS²
 Pleasant Hill, MS
 Plymouth Bluff, MS²
 Point Harbor, MS²
 Polkville, MS
 Poor House, MS
 Port Gibson Cliaborne, MS
 Potts Camp, MS
 Pulaski, MS
 Pumpkin Creek, MS²
 Quentin, MS
 Raleigh, MS
 Ramseys, MS
 Raymond, MS
 Redwater, MS
 Redwood, MS²
 Reganton, MS
 Ridgeland, MS
 Ripley, MS
 River Hills, MS
 River Oaks, MS²
 Riverchase, MS²
 Rollingfork, MS
 Rosetta, MS
 Roxie, MS
 Russum, MS
 Sabougla, MS²
 Sallies Cove, MS²
 Saltillo, MS

Sandersville, MS
 Sandy Land, MS²
 Saucier, MS
 Scobey, MS
 Senatobia, MS²
 Shuqualak, MS²
 Sialoam, MS²
 Signal Hill, MS
 Silvercreek, MS¹
 Smithville, MS²
 Snow Lake, MS
 Standingpine, MS
 Starkville, MS
 Strengthford, MS
 Sturgis, MS
 Success, MS
 Suffolk, MS
 Sunset Point, MS²
 Talking Warrior, MS
 Talley Land, MS²
 Taylor, MS²
 Teckville, MS²
 Tibbee Bluff, MS²
 Tishomingo State Park, MS
 Trace Road, MS²
 Troy, MS
 Tucker, MS
 Tupelo, MS¹
 Unionchurch, MS
 Utica, MS
 Valleypark, MS
 Van Buren, MS²
 Vancleave, MS²
 Vanfleet, MS
 Vestry, MS
 Vicksburg, MS¹
 Walker Sideins, MS²
 Walnut Point, MS²
 Waltersville, MS
 Washington, MS
 Waterford, MS
 Waverly, MS²
 Waverly Plantation, MS²
 Waynesboro, MS
 Weir, MS
 White Apple, MS
 White Cap, MS
 Whitten Town, MS
 Wiggins, MS¹
 Williamsville, MS
 Winborn, MS
 Wortham, MS
 Yocona, MS²
 Agency, MT
 Alberton, MT
 Anaconda, MT¹
 Argenta, MT¹
 Arlee, MT
 Ashland, MT¹ ✓
 Babb, MT
 Belfry, MT
 Benchmark, MT
 Big Arm, MT
 Big Fork, MT
 Big Sky, MT
 Billings, MT¹ ✓
 Birney, MT ✓
 Birney Divide, MT ✓
 Blue Slide Corridor, MT
 Boulder, MT¹
 Box Elder, MT
 Boxelder, MT
 Bridger, MT
 Brockton, MT
 Buffalo, MT
 Bull River Corridor, MT

ATTACHMENT 4

FIELD GUIDANCE
Identifying and Prioritizing Communities at Risk
Prepared by: National Association of State Foresters
June 27, 2003

Purpose: To provide national, uniform guidance for implementing the provisions of the “Collaborative Fuels Treatment” MOU, and to satisfy the requirements of Task e, Goal 4 of the Implementation Plan for the 10-Year Comprehensive Strategy.

Intent: The intent is to establish broad, nationally compatible standards for identifying and prioritizing communities at risk, while allowing for maximum flexibility at the state and regional level. Three basic premises are:

- Include all lands and all ownerships.
- Use a collaborative process that is consistent with the complexity of land ownership patterns, resource management issues, and the number of interested stakeholders.
- Set priorities by evaluating projects, not by ranking communities.

References:

1. *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment. 10-Year Comprehensive Strategy Implementation Plan.* May 2002. (Goal 4 Task e: “Develop nationally comparable definitions for identifying at-risk wildland urban interface communities and a process for prioritizing communities within state and tribal jurisdiction.”) (Available at: <http://www.fireplan.gov/reports>).
2. *Memorandum of Understanding for the Development of a Collaborative Fuels Treatment Program.* January 13, 2003. (Available at: <http://www.fireplan.gov/reports>).
3. *Concept Paper: Communities at Risk.* National Association of State Foresters (NASF), December 2, 2002. (Available at: <http://www.stateforesters.org/reports>).
4. *Wildland/Urban Interface Fire Hazard Assessment Methodology.* NWCG, undated (circa 1997). (Available through the NWCG Publications Management System (PMS), NIFC Catalog number NFES 1597.)

Definition – Community at Risk: For the purpose of this document, a community is defined as “a group of people living in the same locality and under the same government” (*The American Heritage Dictionary of the English Language*, 1969). A community is considered at risk from wildland fire if it lies within the wildland/urban interface as defined in the federal register (*FR Vol. 66, No. 3, Pages 751-754, January 4, 2001*).

3. Prior to May 1 of each year (beginning in 2004) state, federal, local, and tribal partners and interested stakeholders should meet to complete a joint program of work for the upcoming federal fiscal year. Jointly prioritize projects within each state using the collaborative process defined in the national, interagency MOU "*For the Development of a Collaborative Fuels Treatment Program*". Assign the highest priorities to projects that will provide the greatest benefits either on the landscape or to communities. Attempt to properly sequence treatments on the landscape by working first around and within communities, and then moving further out into the surrounding landscape.

[Note: In some of the larger states, this process may have to be initiated at the sub-state level first. The resulting lists of prioritized projects would then be reviewed by a state level collaborative group, who would develop the final, joint program of work.]

- First, focus on the category/zone of highest overall risk but consider projects in all categories/zones. Identify a set of projects that will effectively reduce the level of risk to communities within the category/zone.
- Second, determining the community's willingness and readiness to actively participate in each identified project.
- Third, for each potential project, determining the willingness and ability of the owner of the land surrounding the community to undertake, and maintain, a complementary project.
- Last, set priorities by looking for projects that best meet the three criteria above. In other words, assign a higher priority to those projects with the greatest potential to achieve a proper sequencing of treatments. Assign lower priority to projects where either the community or the surrounding landowner is unwilling or unable to actively participate. However, do not overlook opportunities around isolated, rural communities which may be at high risk, but not be organized well enough to effectively advocate on their own behalf.
- Note: One reason for the collaborative priority setting process is the opportunity to identify complementary projects on adjoining ownerships which, if implemented, would provide a greater benefit to communities than if only a single project was implemented. However, nothing in this document is intended to prevent non-public landowners (such as Indian tribes) from implementing any project on their own lands, regardless of overall priority.

4. Annually document accomplishments both quantitatively and qualitatively.

- Quantitative measures. Document accomplishments in accordance with the performance measures identified under Goal 4 in the *10-Year Comprehensive Strategy Implementation Plan* (page 15). However, the single, most important quantitative reporting element is the number of

SUMMARY:

Using the process described above, it is possible to assess the level of relative risk that communities in the wildland urban interface face from wildland fire. This can then lead to an efficient process for prioritizing and scheduling effective, fuel reduction projects. However, recognizing that the condition of the vegetation (fuel) on the landscape is dynamic, and that the resilience of communities to wildfire loss varies widely and changes over time, it is not only important and necessary to complete community assessments, but also to periodically complete re-assessments. The frequency of re-assessments, however, will vary considerably across the country depending upon fuel types and climate. We must remember that it is not only important to lower the risk to communities, but once the risk has been reduced, to maintain those communities at a reduced risk.

Further, it is essential that both the assessment process and the prioritization of projects be done collaboratively, with all agencies with fire protection jurisdiction – federal, state, local, and tribal – and interested stakeholders, taking an active role.

Fire Regime and Condition Class Summary Worksheet

FRCC Project Data		Project Code 2	Project Number 3	Character Date 4 / /
Registration Code 1	Project Name 6	Project Area 7	acres / hectares (circle one) (8)	
Examiner Name 5				
Georeferenced Project Position:		Latitude 10	Longitude 11	Datum 5
Photos:				
Current Photo 6	Photo Dates:	Comments:		
Historical Photo 8	7 / /			
	9 / /			
		20		

Before completing the section below, complete one strata worksheet for each strata in the project landscape

Field #	% Area	Strata	1	2	3	4	5	Landscape Total
Field 41	% Area - Enter the % of the landscape that each strata comprises. (field 41 on the strata worksheet).			2				Landscape Total 100%
Field 51	Natural Fire Frequency - For each strata, enter field 51 from the strata's individual worksheet							
Field 92	Multiply %Area/100 with Natural Fire Frequency [(field 41/100) * field 51]							
Field 93	Weighted Mean Fire Frequency (years). Enter the sum of field 92 for columns 1 through 5							Years
Field 94	Weighted Mean Fire Frequency Class. Enter "Frequent" if field 93 is 0-35 years, "Infrequent" if 36-200 years, "Rare" if more than 200 years.							
Field 53	Natural Fire Severity. Enter the % canopy replacement from field 53 on the strata worksheet.							
Field 95	Multiply %Area/100 with Natural Fire Severity [(field 41/100) * field 53]							
Field 96	Landscape Natural Fire Severity. Enter the sum of field 95 for columns 1 through 5							%
Field 97	Landscape Natural Fire Severity Class. Enter "Surface" if field 96 is 0-25%, "Mixed" if 26-75%, "Replacement" if greater than 75%.							
Field 98	Landscape Natural Fire Regime Group. Enter class based on the combination of field 94 and field 97: I - frequent, surface & mixed, II - frequent, replacement, III - infrequent, mixed & surface, V - infrequent, replacement, V - rare, replacement							
Field 82	Veg-Fuel Departure. Enter field 82 from the strata worksheet.							
Field 99	Multiply %Area/100 with Veg-Fuel Departure [(field 41/100) * field 82]							
Field 100	Veg-Fuel Weighted Departure. Enter the sum of field 99 for columns 1 through 5							%
Field 86	Fire Frequency-Severity Departure. Enter field 86 from the strata worksheet.							
Field 101	Multiply %Area/100 with Freq-Sev Departure [(field 41/100) * field 86]							
Field 102	Fire Frequency-Severity Weighted Departure. Enter the sum of field 101 for columns 1-5							%
Field 103	Enter the higher of Veg-Fuel Weighted Departure and Fire Frequency-Severity Weighted Departure (higher of field 100 and 102.)							%
Field 104	Project Fire Regime Condition Class. Enter "Low" if field 103 is 0-33%, "Moderate" if 34-66%, "High" if 67-100%.							

Please email your comments and suggestions to helpdesk@frcc.gov

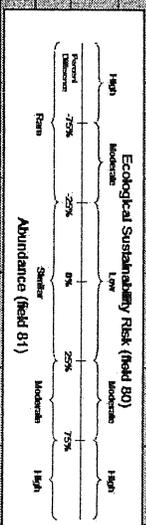
"FRCC Worksheet" version 1.0.5 (3/3/2004)

Fire Regime and Condition Class Strata Worksheet

Strata Data		Strata Num	State Code	State Name	Date	Bp Land Unit	BpLU Liform	def
21	27	22	28	23	24	25	26	
Indicator	Species	Insolation Class	Low Elevation	High Elevation	Local BpLU	Landform	Strata Composition	% of Area
27	34	36	38	39	31	32	41	
Georeferenced Strata Position		Latitude	Longitude	Datum	Rel Fire Freq	Natural Fire Sev	Cur Fire Severity	
43	49	44	48	51	52	53	54	
Photo	Ref Comp Source	Photo Date	Rel Fire Freq	D/E Class Break	Cur Fire Freq	Natural Fire Sev	Cur Fire Severity	
55	56	57	58	59	60			
Source	Cur Comp Src	Nat Amer Burn	B/C Class Break	D/E Class Break	Comment			

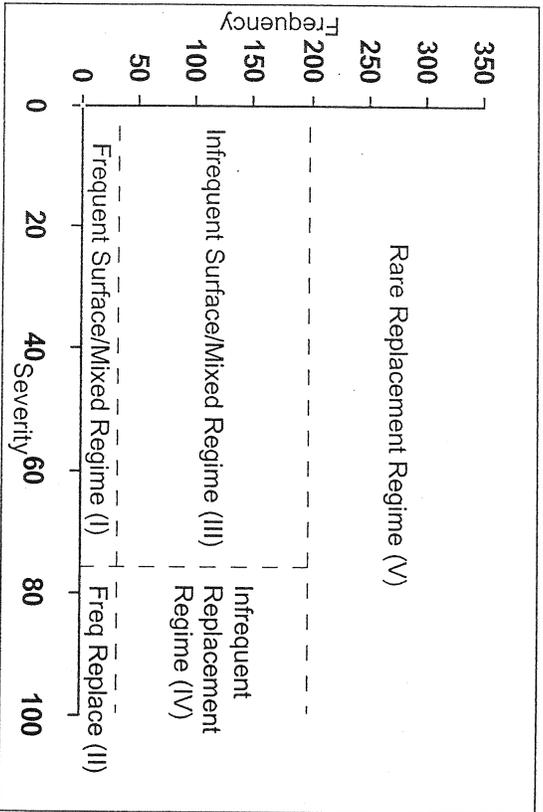
Vegetation Fuel Class Data												
Vegetation Fuel Class	Upper Layer Litroform	Upper Layer Size Class	Upper Layer Canopy Closure	Dominant Species 1 (def)	Dominant Species 2 (def)	Dominant Species 3 (def)	Dominant Species 4 (def)	Fuel Model	Ref Comp (def)	Cur Comp (73)	Class Represent Photo (74)	Class Represent Photo Date (75)
(62)	(63)	(64)	(65)	(66)	(67)	(68)	(69)	(70)	(72)	(73)	(74)	(75)
AESP										%		/
BMSC										%		/
CMSO										%		/
DLSO										%		/
ELSC										%		/
										%		/
										%		/
										%		/

Veg-Fuel Class (rows above becomes columns here)												
Field	Reference (Natural) Percent Composition	Current Percent Composition	Similarity	Strata Similarity	% Difference	Ecological Sustainability Risk	Abundance	Current Veg-Fuel Departure	Current Fire Frequency Departure	Current Fire Severity Departure	Frequency-Severity Cond Class	Strata Fire Regime Cond Class
72	73	77	78	79	80	81	82	83	84	85	86	87
72	100%											
73		100%										
77			100%									
78				100%								
79					100%							
80						High						
81						High						
82						High						
83						High						
84						High						
85						High						
86						High						
87						High						
88						High						



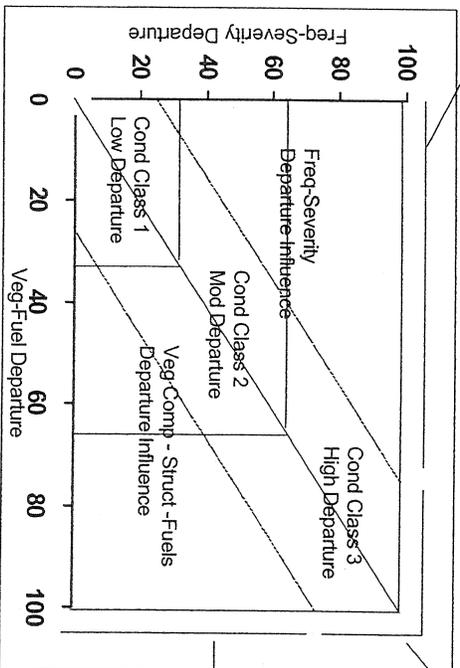
Fire Regime and Condition Class Worksheet Graphs

Frequency and Severity Classification



Restoration of fire effects

Project Condition Class Restoration Context



Restoration of fire effects, vegetation composition, structure, and fuels

Restoration of vegetation, structure and fuels

Fire Regime and Condition Class Summary Worksheet

FRCC Project Data		Registration Code 1	Project Code 2	Project Number 3	Charact Date 4 / /
Examiner Name 5	Project Name 6	Project Area 7	Acres / hectares (circle one) (8)		
Georeferenced Project Position:		Latitude 0	Longitude 11	Datum 5	def
Photos:		Current Photo 6	Photo Dates 7 / /	Comments:	
Historical Photo 8	9 / /	10	11	12	

Before completing the section below, complete one strata worksheet for each strata in the project landscape

Field #	Description	1	2	3	4	5	Landscape Total
Field 41	% Area. Enter the % of the landscape that each strata comprises. (field 41 on the strata wksht).	41					100%
Field 51	Natural Fire Frequency. For each strata, enter field 51 from the strata's individual worksheet	51					
Field 92	Multiply %Area/100 with Natural Fire Frequency [(field 41/100) * field 51]	92					
Field 93	Weighted Mean Fire Frequency (years). Enter the sum of field 92 for columns 1 through 5	93					
Field 94	Weighted Mean Fire Frequency Class. Enter "Frequent" if field 93 is 0-35 years, "Infrequent" if 36-200 years, "Rare" if more than 200 years.	94					
Field 95	Natural Fire Severity. Enter the % canopy replacement from field 53 on the strata worksheet.	95					
Field 96	Multiply %Area/100 with Natural Fire Severity [(field 41/100) * field 53]	96					
Field 97	Landscape Natural Fire Severity. Enter the sum of field 95 for columns 1 through 5	97					
Field 98	Landscape Natural Fire Regime Group. Enter class based on the combination of field 94 and field 97: I - frequent, surface & mixed, II - frequent, replacement, III - infrequent, mixed & surface, IV - infrequent, replacement, V - rare, replacement	98					
Field 82	Veg - Fuel Departure. Enter field 82 from the strata worksheet.	82					
Field 99	Multiply %Area/100 with Veg-Fuel Departure [(field 41/100) * field 82]	99					
Field 100	Veg - Fuel Weighted Departure. Enter the sum of field 99 for columns 1 through 5	100					
Field 86	Fire Frequency - Severity Departure. Enter field 86 from the strata worksheet.	86					
Field 101	Multiply %Area/100 with Fire Freq-Sev Departure [(field 41/100) * field 86]	101					
Field 102	Fire Frequency - Severity Weighted Departure. Enter the sum of field 101 for columns 1 - 5	102					
Field 103	Enter the higher of Veg-Fuel Weighted Departure and Fire Frequency-Severity Weighted Departure (higher of field 100 and 102.)	103					
Field 104	Project Fire Regime Condition Class. Enter "1-Low" if field 103 is 0-3.3%, "2-Moderate" if 3.4-6.6%, "3-High" if 6.7-100%.	104					

Please email your comments and suggestions to helpdesk@frc.org

"FRCC Worksheet" version 1.0.5 (3/3/2004)



Firewise Landscaping

Firewise Landscaping Checklist

When designing and installing a firewise landscape, consider the following:

- Local area fire history.
- Site location and overall terrain.
- Prevailing winds and seasonal weather.
- Property contours and boundaries.
- Native vegetation.
- Plant characteristics and placement (duffage, water and salt retention ability, aromatic oils, fuel load per area, and size).
- Irrigation requirements.

To create a firewise landscape, remember that the primary goal is fuel reduction. To this end, initiate the zone concept. Zone 1 is closest to the structure; Zones 2-4 move progressively further away.

- Zone 1. This well-irrigated area encircles the structure for at least 30' on all sides, providing space for fire suppression equipment in the event of an emergency. Plantings should be limited to carefully spaced fire resistant species.
- Zone 2. Fire resistant plant materials should be used here. Plants should be low-growing, and the irrigation system should extend into this section.
- Zone 3. Place low-growing plants and well-spaced trees in this area, remembering to keep the volume of vegetation (fuel) low.
- Zone 4. This furthest zone from the structure is a natural area. Thin selectively here, and remove highly flammable vegetation.

Also remember to:

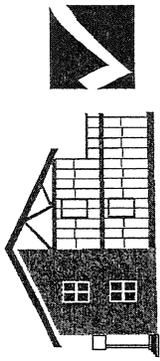
- Be sure to leave a minimum of 30' around the house to accommodate fire equipment, if necessary.
- Carefully space the trees you plant.
- Take out the "ladder fuels" — vegetation that serves as a link between grass and tree tops. It can carry fire to a structure or from a structure to vegetation.
- Give yourself added protection with "fuel breaks" like driveways, gravel walkways, and lawns.

When maintaining a landscape:

- Keep trees and shrubs pruned. Prune all trees up to 6' to 10' from the ground.
- Remove leaf clutter and dead and overhanging branches.
- Mow your lawn regularly.
- Dispose of cuttings and debris promptly, according to local regulations.
- Store firewood away from the house.
- Be sure the irrigation system is well maintained.
- Use care when refueling garden equipment and maintain it regularly.
- Store and use flammable liquids properly.
- Dispose of smoking materials carefully.
- Become familiar with local regulations regarding vegetative clearances, disposal of debris, and fire safety requirements for equipment.
- Follow manufacturers' instructions when using fertilizers and pesticides.

Access additional information on the Firewise home page: www.firewise.org. Please see the other side of this sheet for the *Firewise Construction Checklist*.

Firewise Construction



Firewise Construction Checklist

When constructing, renovating, or adding to a firewise home, consider the following:

- Choose a firewise location.
- Design and build a firewise structure.
- Employ firewise landscaping and maintenance.

To select a firewise location, observe the following:

- Slope of terrain; be sure to build on the most level portion of the land, since fire spreads rapidly, even on minor slopes.
- Set your single-story structure at least 30 feet back from any ridge or cliff; increase distance if your home will be higher than one story.

In designing and building your firewise structure, remember that the primary goals are fuel and exposure reduction. To this end:

- Use construction materials that are fire-resistant or non-combustible whenever possible.
- For roof construction, consider using materials such as Class-A asphalt shingles, slate or clay tile, metal, cement and concrete products, or terra-cotta tiles.
- Constructing a fire-resistant sub-roof can add protection, as well.
- On exterior wall cladding, fire resistive materials such as stucco or masonry are much better than vinyl which can soften and melt.
- Consider both size and materials for windows; smaller panes hold up better in their frames than larger ones; double pane glass and tempered glass are more effective than single pane glass; plastic skylights can melt.
- Cover windows and skylights with non-flammable screening shutters.
- To prevent sparks from entering your home through vents, cover exterior attic and underfloor vents with wire mesh no larger than 1/8 of an inch; make sure under-eave and soffit vents are closer to the roof line than the wall; and box in eaves, but provide adequate ventilation to prevent condensation.
- Include a driveway that is wide enough – 12 feet wide with a vertical clearance of 15 feet and a slope that is less than 12 percent – to provide easy access for fire engines. The driveway and access roads should be well-maintained, clearly marked, and include ample turnaround space near the house. Also consider access to water supply, if possible.
- Provide at least two ground level doors for safety exits and at least two means of escape – either a door or window – in each room, so that everyone has a way out.
- Keep gutters, eaves, and roof clear of leaves and other debris.
- Make an occasional inspection of your home, looking for deterioration such as breaks and spaces between roof tiles, warping wood, or cracks and crevices in the structure.
- Also, inspect your property, clearing dead wood and dense vegetation from at least 30 feet from your house, and moving firewood away from the house or attachments, like fences or decks.

Any structures attached to the house, such as decks, porches, fences, and outbuildings should be considered part of the house. These structures can act as fuses or fuel bridges, particularly if constructed from flammable materials. Therefore, consider the following:

- If you wish to attach an all-wood fence to your home, use masonry or metal as a protective barrier between the fence and house.
- Use non-flammable metal when constructing a trellis and cover with high-moisture, non-flammable vegetation.
- Prevent combustible materials and debris from accumulating beneath patio deck or elevated porches; screen under or box in areas below ground line with wire mesh no larger than 1/8 of an inch.
- Make sure an elevated wooden deck is not located at the top of a hill where it will be in direct line of a fire moving up slope; consider a terrace instead.

Access additional information on the Firewise home page: www.firewise.org.

Please see the other side of this sheet for the **Firewise Landscaping Checklist**.

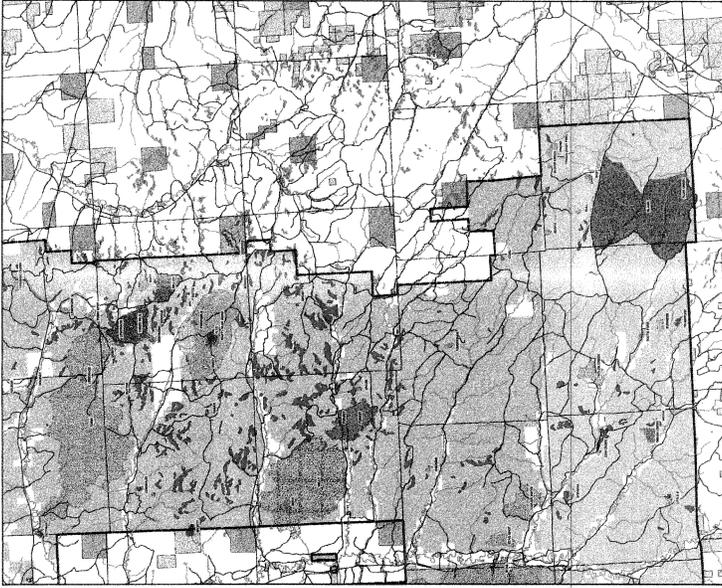
ATTACHMENT 7

ATTACHMENT 8

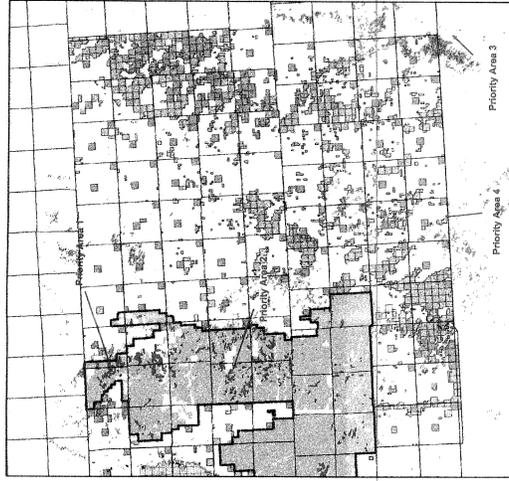
Forest Service
Priority Area 1



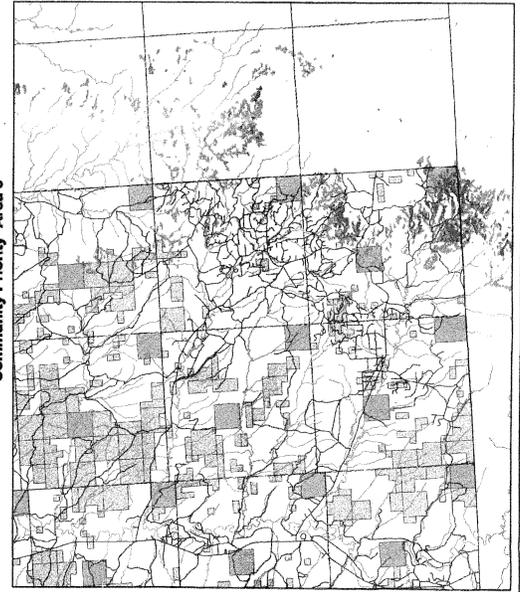
Forest Service
Priority Area 2



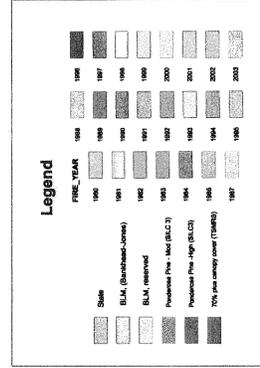
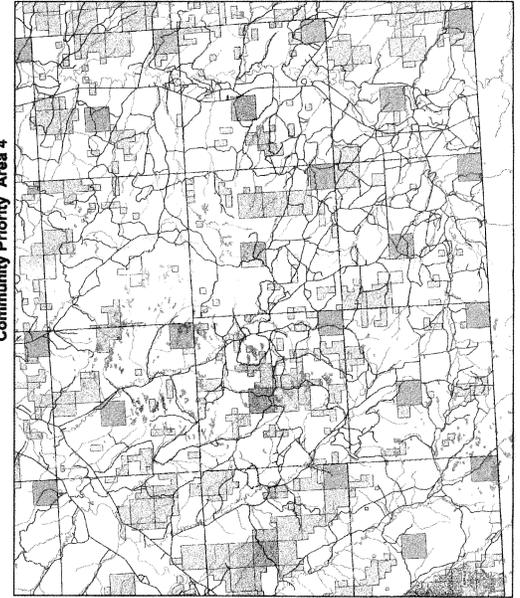
Powder River County Fire Plan
Priority Fuel Reduction Areas



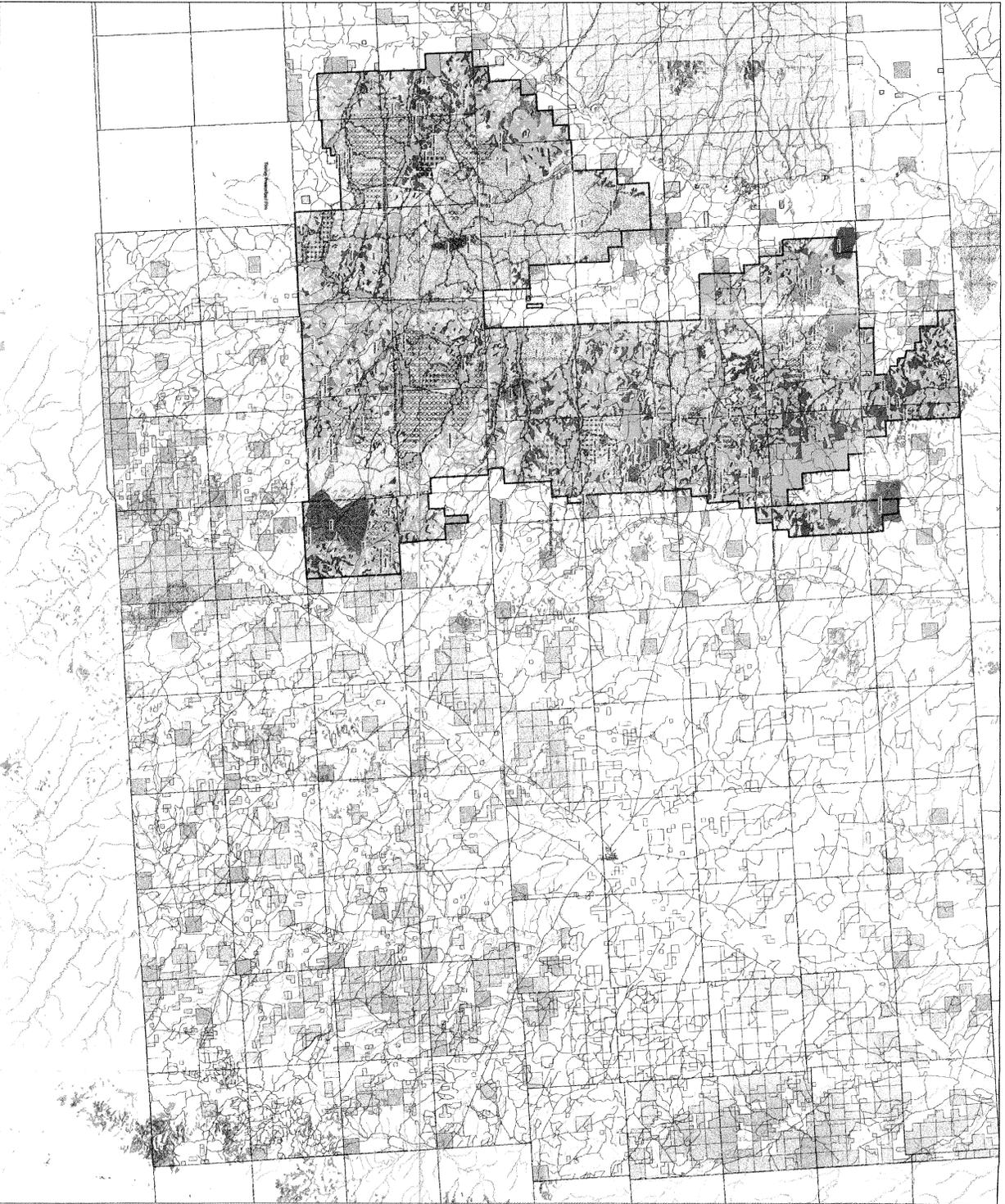
Bell Creek
Community Priority Area 3



Bay Horse
Community Priority Area 4



**Powder River County Fire Plan
Fire Condition Classes
2004**



Color/Pattern	Fire Condition Class
Lightest Gray	Class 1
Light Gray	Class 2
Medium Gray	Class 3
Dark Gray	Class 4
Black	Class 5
White	Class 6
Diagonal Lines (TL-BR)	Class 7
Diagonal Lines (BL-TL)	Class 8
Horizontal Lines	Class 9
Vertical Lines	Class 10
Stippled	Class 11
Grid	Class 12
Dark Stippled	Class 13
Light Stippled	Class 14
White	Class 15

Color/Pattern	Fire Condition Class
Lightest Gray	Class 1
Light Gray	Class 2
Medium Gray	Class 3
Dark Gray	Class 4
Black	Class 5
White	Class 6
Diagonal Lines (TL-BR)	Class 7
Diagonal Lines (BL-TL)	Class 8
Horizontal Lines	Class 9
Vertical Lines	Class 10
Stippled	Class 11
Dark Stippled	Class 12
Light Stippled	Class 13
White	Class 14



