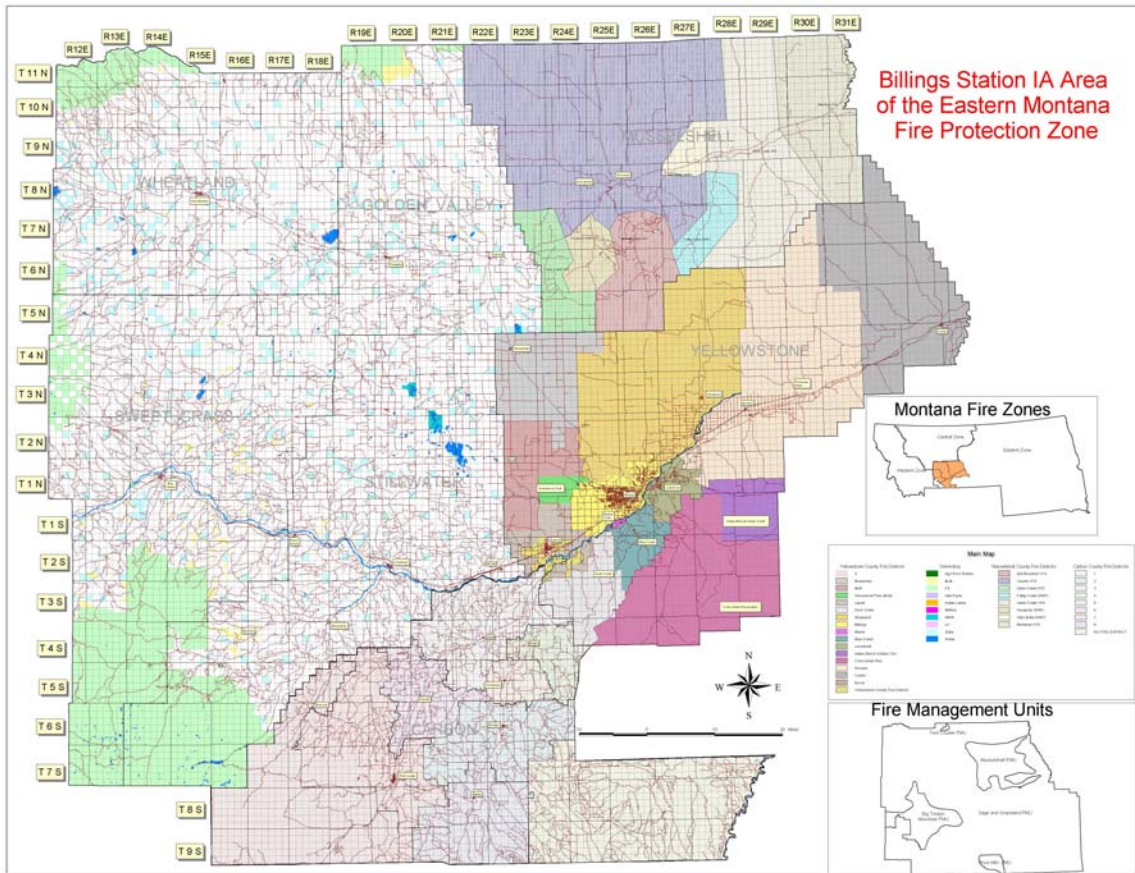


Billings Field Office Fire Management Plan 2004



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I. Introduction

The Federal Wildland Fire Policy Review (1995, 2000) requires BLM that “every acre with burnable vegetation must have an approved Fire Management Plan”, the Billings Fire Management Plan conforms with that direction.

This FMP covers lands administered by the Billings Field Office (BiFO). The BiFO-FMP has been developed through an interdisciplinary approach using resource management specialists, subject matter experts and cooperators in accordance with the framework and guidance provided by the Director of Fire and Aviation at the National Office. The BiFO-FMP is based on and in compliance with decisions and goals as defined in land use planning documents (LUPs).

In addition to the Public Lands within the Billings Field Office, fire protection is also provided to the Pryor Mountain Unit, administered by the Custer National Forest, Beartooth Ranger District. The goals and objectives for the forest lands identified in this plan are defined in the Custer National Forest Management Plan (1986).

A. Purpose

The purpose of the Bureau of Land Management (BLM) Billings Field Office Fire Management Plan (BiFO-FMP) is to identify and integrate all Wildland fire management guidance, direction, and activities required to implement national fire policy and fire management direction from the following: Federal Wildland Fire Management Policy and Program Review-1995 and 2001; The Interagency Fire Management Plan Template; and A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan. These policies require development of a FMP for all areas subject to wildland fires.

The FMP was developed around a field office (FO) management program and addresses all aspects of it, including wildland fire use, urban interface (WUI), rural fire assistance, prescribed fire, fuels management, prevention, and suppression. The FMP identifies a fire program that meets identified land use plan objectives and provides for firefighter and public safety.

The FMP allows management direction to be easily accessible by fire and resource personnel. It highlights management direction to facilitate development and implementation of fire management strategies. A Glossary of Terms is provided at the end of this document to assist in clarifying technical terms.

B. Relationship to Environmental Compliance

The BiFO-FMP meets the requirements of the National Environmental Policy Act (NEPA) and complies with other Montana State and Federal regulations. The BiFO – FMP compiles the land use decisions related to fire management as determined in the Billings Resource Management Plan 1983,(RMP), and Areas of Critical Environmental Concern (ACEC), Wilderness Study Area Guidelines, Off Road Highway Vehicle Plan (OHV) and other specific area management plans. An

interdisciplinary approach insures compliance with the National Environmental Policy Act (NEPA) and the guidance contained in LUPs and amendments. Site specific plans will require additional environmental analysis and compliance. Management direction for the Pryor Mountain Unit is contained in the Custer National Forest Management Plan (1986).

C. Collaborative Process Identification

The BI-FMP is a strategic document identifying approved fire management direction determined by the FMP and analyzed in the final environmental impact statement for that plan. This FMP was developed with input from and consultation with representatives from the Bureau of Indian Affairs, (BIA), US Fish and Wildlife Service (FWS), Forest Service, (FS), the State of Montana, Bighorn Recreation Area (NPS) and interested citizens. The BI-FMP also meets regulatory compliance requirements with the National Environmental Policy Act as it is a strategic document that does not make resource management decisions or project specific implementation decisions and therefore is categorically excluded from further NEPA analysis (Categorical Exclusion 516 DM2, Appendix 1, Chapter 2, 1.10). Prior to implementing fire management projects on-the-ground, additional environmental analysis and compliance with other federal and state regulatory requirements such as the National Historic Preservation Act and the Endangered Species Act, the Clean Water Act and the Clean Air Act will be required.

The BiFO, the Custer National Forest, Beartooth Ranger District and the Montana Department of Natural Resources have agreed that fire program planning, preparedness, fuels management, prevention, suppression, restoration and education will be conducted on an interagency basis with the involvement of cooperators and partners. The Bureau of Indian Affairs has agreed to cooperate with the other partners in preparedness and suppression.

D. Authorities

Authorities for the development of the BI-FMP are listed below:

- Protection Act of September 20, 1922 (42 Stat. 857; U.S.C. 594).
- Taylor Grazing Act of June 28, 1934 (48 Stat. 1269; U.S.C. 315).
- Reciprocal Fire Protection Act of May 27, 1955(69 Stat. 66; 42 U.S.C. 1856, 1856a).
- Economy Act of June 30, 1932 (47 Stat. 417; 31 U.S.C. 686).
- The Federal Land Policy and Management Act of 1976, as amended (FLPMA) (Public Law 94-579; 43 U.S.C. 1701).
- Disaster Relief Act, Section 417 (Public Law 93-288).
- Annual Appropriations Acts for the Department of the Interior.
- United States Department of the Interior Manual (910 DM 1.3).
- 1995 Federal Wildland Fire Management Policy.
- 2001 Updated Federal Wildland Fire Management Policy (1995 Federal Wildland Fire Management Policy Update).
- 1998 Departmental Manual 620 Chapter 1, Wildland Fire Management General Policy and Procedures.

- Appropriations Act for DOI and Related Agencies (Public Law 106-291).
- United States Code (31 U.S.C. 3711[a]).
- Code of Federal Regulations (4 CFR 2920.1-2, 9212.1, 9212.4, and 9239).
- National Historic Preservation Act of 1966 (NHPA) as amended (1992) (16 USC 470 et seq.).
- Reciprocal Fire Protection Act of 1955 (42 USC 1856(a)-(d)).
- Wildfire Suppression Assistance Act of 1989 (42 USC 1856(m)-(o)).

II. Relationship to Land Management Planning/Fire Policy

This chapter outlines national, regional, and state BLM policy and guidance from the appropriate LUP that provides direction for this FMP.

A. Policy

The BiFO-FMP derives overall program guidance from the following policy documents:

- BLM Handbook 9214, *Prescribed Fire Management*. Describes authority and policy for prescribed fire use on public lands administered by the Bureau of Land Management (1998).
- *Managing the Impacts of Wildfires on Communities and the Environment* (September 2000).
- *National Cohesive Strategy*. Goal is to coordinate an aggressive, collaborative approach to reduce the threat of wildland fire to communities and to restore and maintain land health www.fireplan.gov (October 2000).
- *Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment -10 Year Comprehensive Strategy*. Provides foundation for wildland agencies to work closely with all levels of government, tribes, conservation, and commodity groups and community-based restoration groups to reduce wildland fire risk to communities and the environment (August 2001).
- *Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, 10 Year Comprehensive Strategy – Implementation Plan* (May 2002).
- *Healthy Forests - An Initiative for Wildfire Prevention and Stronger Communities* (August 2002).
- *Emergency Stabilization and Rehabilitation Guide* (ESR) DM 620-3.

B. Resource Management Plan (RMP) Guidance

The following plans guide wildland fire management activities, either directly or by providing goals which wildland fire management assists in meeting:

- Billings RMP (Nov 1983; ROD Sept 1984)
- ACEC Protection Plan (March 1999)
- Sundance Lodge and Four Dances Area Plan Amendment (DR 2000)
- Pompey's Pillar Plan Amendment (1996)
- 1998 Areas of Critical Environmental Concern (ACEC) Protection Plan. (ROD 3/99)

- Interdisciplinary Watershed Plans (when completed)
- 2001 OHV Off Highway Vehicle Environmental Impact Statement (2001)
- 1997 Standards for Rangeland Health and Guidelines for Grazing Management.
- Fire/Fuels Management Environmental Assessment/Plan Amendment for Montana and the Dakotas (2003)
- Custer National Forest Management Plan (10/86)
- Custer National Forest Fire Management Plan (2004)

C. Goals and Objectives Common to all FMUs

- Firefighter and public safety is the first priority.
- The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other properties and improvements, and natural and cultural resources will be based on the values to be protected, human health and safety, and the costs of protection. Once people have been committed to an incident, these human resources become the highest value to be protected.
- Use prescribed fire, mechanical treatment, chemical treatment, and biological treatments to reduce the risk and cost of severe wildland fire, sustain ecological health and function of fire-adapted ecosystems.
- Protect, maintain, preserve, and/or restore habitats necessary for the conservation of species, and the ecosystems upon which they depend, to maintain viable and diverse populations of native plant, animal, and aquatic species including special status species.
- Improve ecosystem health and maintain or restore the range of ecological conditions in which native aquatic, vegetative, terrestrial and special status species evolved.
- Manage visual resources according to established guidelines for VRM classes in accordance with procedures outlined in the BLM Handbook 8410-1.
- Protect cultural and paleontological resources.
- Response to wildland fire is based on ecological, social, and legal consequences of the fire. The circumstances under which a fire occurs, and the likely consequences on firefighter and public safety and welfare, natural and cultural resources, and values to be protected dictate the appropriate management response to the fire.
- Fire management planning, preparedness, prevention, suppression, restoration and rehabilitation, monitoring, research, and education will be conducted on an interagency basis with the involvement of co-operators and partners.
- Meet federal and state air quality standards and comply with the Montana/Idaho Airshed Group Operating Guide.
- Meet federal and state water quality standards and prevent degradation.
- Limit and/or minimize erosion in all fire management activities.
- Meet established Visual Resource Management (VRM) class objectives.
- Meet Standards for Rangeland Health.
- Under BLM Special Status Species policy (BLM Manual 6840), BLM shall ensure that actions authorized, funded, or carried out by the BLM do not contribute to the need for listing a candidate or BLM sensitive species under the Endangered Species Act.

- Reduce the amount of forest, shrub, and grass lands that are characterized as condition class 2 and 3 (where fire regimes have been moderately to significantly altered from their historical ranges, where there is a moderate to high risk of losing key ecosystem components, where fire return frequencies have departed from historical frequencies by more than one return interval, and where vegetation attributes have been significantly altered from their historical range.) (Appendix H)
- Reduce fire risk to Wildland Urban Interface (WUI) communities. Use fuels reduction methods to create defensible areas which coincide with the natural fire regime as close as reasonably feasible.

Desired Future Conditions common to all FMU's

- Uplands are in proper functioning condition.
- Riparian areas and wetlands are in proper functioning condition.
- Water quality meets Montana State standards.
- Air quality meets Montana State standards.
- Fuel loads and timber stocking levels are near normal historic levels.

III. Wildland Fire Management Strategies

D. General Management Consideration

The FO is a partner in the Billings Fire Management Zone. Agencies in the zone include the BiFO, Custer National Forest (Beartooth Ranger District), Montana State Department of Natural Resources (Southern Land Office) and Bureau of Indian Affairs. This group is committed to:

- Work collaboratively with communities at risk within the WUI to develop plans for risk reduction. The Federal Register Notice list is located at: <http://www.fireplan.gov/> and http://www.fireplan.gov/communities_at_risk.cfm and is not totally inclusive of all communities. The Fire/Fuels Management Environmental Assessment Plan Amendment for Montana and the Dakotas (2003) also identified a not totally inclusive list of communities that includes some within the BIFO boundaries.
- Work with federal, state, and local partners to develop cross boundary management strategies and prioritize cross agency fire management actions.
- Provide safe cost-effective fire management programs in support of land and resource management plans through appropriate planning, staffing, training, equipment, and management oversight.
- Work together with their partners and other affected groups and individuals to prevent unauthorized ignition of wildland fires.
- Fire management planning preparedness, prevention, suppression, fire use, restoration and rehabilitation, monitoring, research, and education will be conducted on an interagency basis with the involvement of cooperators and partners.

This group and the interagency approach it represents is guided by the 2001 update of the 1995 Federal Wildland Fire Management Policy, the Wildland and Prescribed Management Policy, the Implementation Procedures Reference Guide, the Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment and the 10-Year Comprehensive Strategy. This group will represent the participating federal agencies and will provide local governments the assistance necessary to address wildland fire management issues.

E. Wildland Fire Management Goals

The BIFO will conduct all wildland fire management actions in compliance with the 1995 Federal Wildland Fire Policy and the 2001 Federal Wildland Fire Policy Update guiding principles. These principles are:

Firefighter and public safety are the highest priority in every fire management activity.

Provide an appropriate management response (AMR) on all wildland fires, with emphasis based on risks to fire fighter and public safety, consistent with resource objectives weather and fuels conditions, threats and values to be protected, cost efficiencies and standards and guidelines). AMR allows land managers to tailor preplanned wildland fire responses to meet objectives established in resource management plans and their associated implementation plans.

Work with communities at risk to assess risk in terms of direct wildland fire impacts and implement programs to mitigate that risk through collaborative planning and projects.

Establish partnerships with all interagency cooperators to facilitate coordinated fire management activities.

Encourage close coordination and collaboration among specialists within the BIFO and among the BIFO and federal, interested organizations, private landowners, state, and local partners.

Develop and use the best scientific information available to deliver technical and community assistance to support ecological, economic, biological, physical and sociological factors.

Wildland fire use is not approved in the current land use plan so fire use objectives and goals will not be addressed in this plan.

F. Wildland Fire Management Options

Responses to each wildland fire will be initiated in a timely manner with a force mix, based upon established fire management direction determined by NFMS planning and documented in the BiFO-FMP.

Five category B FMUs and 1 category C FMU (as defined in planning handbook: H-1601-1, Appendix C), and one FMU under protection by agreement, have been designated. These categories further define the fire management options that are available in each FMU. (See Map for FMU boundaries)

Category “B” Fire Management Units are areas where unplanned wildland fire is not desired and likely to cause negative effects because of current conditions.

- Suppression Strategy - Use AMR to suppress all fires in accordance with management objectives based on current conditions and fire location. Use prescribed fire, mechanical, chemical, biological treatments, that will move affected landscapes toward desired future condition as described in the RMP. AMR strategies would be tailored to address areas where plant communities are at risk due to current conditions/time of year or other ecological constraints. Multiple fire priority is high.

Negative effects include risks to private lands, urban interfaces, cultural resources, visitor use areas and federally owned facilities. Mitigation efforts could include fuel reduction through mechanical means or prescribed fire to reduce fuels for resource benefits and around private land and urban areas.

Fire/fuels Management Activities - Suppression required; fire and non-fire fuels treatments may be used.

Category “C” Fire Management Units are areas where wildland fire is desired but where there are significant constraints that must be considered.

Suppression Strategy - Use AMR to implement protection objectives in accordance with management objectives based on current conditions and fire location. Use prescribed fire, fire use, mechanical, chemical, biological, and cultural treatments that will enhance or maintain desired conditions as described in the RMP. AMR strategies would be tailored to address areas of significant constraints including Areas of Critical Environmental Concern (ACECs), critical habitat for T&E species, areas of soil instability, and areas of other critical resource constraints. Multiple fire priority is medium.

Significant ecological, social, or political constraints exist.

Fire/fuels Management Activities - Suppression required; fire and non-fire fuels treatments may be used.

The USFS Pryor Mountain Unit is land administered by the US Forest Service, in compliance with the Custer National Forest Plan.

Suppression strategy - Use AMR to suppress fires at minimum acres burned, at a minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives.

Use confinement strategies when firefighter safety will be jeopardized.

G. Description of Wildland Fire Management Strategies by Fire Management Unit

1. FMU B1: Sage and Grasslands

a. Area Description

The BiFO manages approximately 253,500 surface acres of public lands in the Sage and Grasslands FMU. Most of the public land exists in scattered ownership patterns with the exception of the Cottonwood Triangle area in Carbon County, which begins south of the city of Bridger, bordered by Highway 310 on the east and the Beartooth Mountains on the west, extending to the Wyoming state line. This block of public land accounts for the highest incidence of wild fire. Land ownership/administration in this area includes BLM, Forest Service: Gallatin National Forest, Lewis and Clark National Forest, Custer National Forests, private land (5,137,845), State of Montana 347,845 acres, US Fish and Wildlife Service, and Crow Indian Reservation. Except for a few small parcels of public land scattered throughout the area, most of the public land is in northern Musselshell County, eastern Yellowstone County, or in southern Carbon County.

Areas within the Sage and Grasslands FMU, which require special consideration due to urban interface, ACEC issues and higher fire danger resulting from heavy recreational use, are:

The Sundance Lodge Special Recreation Management Area (SRMA) is a small tract of land (379.9 acres) at the confluence of the Yellowstone and Clarks Fork of the Yellowstone River, south of the city of Laurel. This area includes habitat for whitetail deer, pheasants, waterfowl, and songbirds.

The Four Dances Natural Area SRMA Area of Critical Concern (ACEC) (765 acres) is a tract of land with potential for heavy recreation use due to its location immediately east of downtown Billings.

The South Hills area is directly south of Billings along the Yellowstone River. This tract of land lies between the river and a developed subdivision.

The Acton area consists of six sections of public land north of Billings. Grazing and recreation are the primary uses of this area.

b. Characteristics

This FMU is characterized by rolling grass and sage lands, interspersed with Ponderosa Pine and Juniper stands confined to the ridges and higher areas. Access is by a road network suitable for two wheel drive vehicle traffic including Interstate 94, and secondary paved highway networks. Gravel road systems exist throughout the area and allow good access. Dispersed recreation takes place throughout the area. Sagebrush (approximately 117,900 acres) and grasslands (approximately 108,100 acres) are the most common

land cover categories. About 45 percent of the public lands are considered shrub land and 41 percent are grasslands. Less than five percent (about 8,000 acres) are forestlands and less than 2,300 acres are classified as riparian vegetation. The predominant vegetation is western, thickspike and bluebunch wheatgrass, needle and thread grass, and green needlegrass intermixed with big and silver sage. Fuel models 1 and 5 fit the majority of this area, with fuel types 6 in the Clarks Fork Recreation area. Soils vary from silty in the 10-14 inch precipitation zone (PZ) to dense clay-clayey-saline upland complex 5-9 inch PZ.

This FMU contains a wide diversity of habitats and cultural site types. In general, identifiable site types are predominated by Late Prehistoric and Protohistoric aboriginal sites and by Historic period Euro-American homesteads. Typical prehistoric sites include Tepee rings, brush and log habitation structures, open campsites and resource procurement sites such as buffalo jumps.

Areas within the FMU that require special consideration:

- Sundance Lodge: farm land intermixed with mature cottonwood and shrubs, along the Clarks Fork River. It is characterized by Fuel models 1,2,5 and 6. Fuel loads range from .74 to 6.0 ton/acre.
- Four Dances: native grasses including wheat and needle grasses, sagebrush and pine along the rims above the Yellowstone River and cottonwood and brush along the river bottom. Fuel models 1, 5. Fuel loads range from .74 ton/acre to 3.0 ton/acre. Cultural values at the Four Dances Natural Area are, for the most part, not sensitive to damage from wildfire. The Native American religious values and similar values as a Traditional Cultural Properties are not at risk from wildfire. Suppression techniques should be modified to consider the fragile nature of the traditional and religious values.
- South Hills: native wheat grass and needle grasses, sagebrush and a small amount of pine. This area fits fuel model 1. Fuel loads average .50 ton/acre.
- The Acton area: native wheat grass, needle grasses with mixed pine and big sagebrush which fits fuel models 1 and 2. Fuel loads range from .74 tons/acre to 4.0 tons/acre.

Wildlife include: whitetail and mule deer, antelope, upland game birds, turkeys, elk, raptors, songbirds and numerous small mammals, amphibians, and reptiles.

The Sage and Grasslands FMU is designated PSD Class II. The closest Class 1 non-attainment areas near the FMU are the communities of Billings and Laurel.

The majority of this FMU is VRM Class III.

c. Fire History

Lightning is the predominant cause of wildland fires in this FMU. Most fires occur between June and September with the highest occurrence during late July and August. Wildland Fire occurrence records are incomplete due to the lack of information on fires suppressed by local landowners and County Fire Departments. Federal records show 114 fires burning 24,781 acres on federal lands during the 20 year period (1984-2003). Fire behavior is moderate to high with high rates of spread due to the flashy nature of the fuels, topography and winds associated with thunderstorms.

d. Fire Regime/Condition Class

The dominant vegetation type within this FMU is the sage and grass community. This vegetation group is at a moderate to high risk of loss of key ecological components. Past management activities such as fire suppression, livestock grazing, and urbanization have changed the fire regime. Treatment applications outlined in the FMP consider actions to move the landscape and fire regimes closer to their historical condition. Land use, wildlife, and public considerations dictate that not all lands in condition class II & III should be moved toward condition class I. To meet LUP objectives, decadal acreage has been established at 20,000 acres.

FRCC data are summarized below. The Standard Landscape Method was applied to characterize FRCC per direction contained in the *Interagency Fire Regime Condition Class Guidebook* (Hann et al., 2002).

Sage and Grassland FMU					
PNVG	Historic Fire Regime	Condition Class	Federal Acres	Total FMU Acres	% of FMU
SAGE2		III	126,777	3,235,385	50
PGRA3	III	II	50,711	1,329,415	20
PGRA2	III	II	38,023	997,061	15
PPIN9	I	III	38,023	997,061	15
Total FMU		II	253,555	6,647,077	100%

e. Values at Risk

A wide variety of resource values are at risk from fire or fire suppression activities within this FMU. A resource advisor should be consulted when fires threaten or occur in these areas. At risk cultural elements include historic structures and several ACEC'S such as the:

- Will James cabin - Structure protection measures will be used for fire suppression at the Will James cabin.

- The Bridger Fossil ACEC is broadly scattered in several parcels southeast of the town of Bridger.
- Weatherman Draw ACEC is located in the Bridger Triangle south of Bridger. Weatherman Draw contains one of the largest collections of polychrome rock art in the northern plains. Pictographs and petroglyphs number in the hundreds.
- Petroglyph Canyon ACEC is located at the southern edge of the Pryors area is home to hundreds of rock art figures carved into the cliff walls. Fire is of limited concern, and little potential for either fire impacts or fire management impacts is anticipated, however fire suppression efforts must not use fire retardant in areas where rock art exists.

At risk elements pertaining to vegetation and soils concerns are:

Soil loss due to erosion on fire sites

Loss of native vegetation to invasive species on fire impacted areas.

At risk elements pertaining to lands and reality are:

- Sundance Lodge barn and equipment building
- Bridger Communications Site: provides private mobile radio service and a repeater for the Carbon County Sheriff's Department (emergency fire and ambulance); and the Clarks Fork TV repeater.
- Elk Basin: BLM right-of-way authorizations for surface and buried pipelines for oil/gas transportation, storage tanks, valve stations, and pumping stations.

At risk elements pertaining to recreation are:

Four Dances, Sundance and Meeteetse Spires are all considered high sensitive recreational areas. Meeteetse Spires ACEC is recognized for its Scenic Qualities and is a VRM Class II.

Four Dances and Sundance Lodge - Various signs, kiosk and toilet and Will James Cabin.

Sundance and Four Dances: signs and buildings

At risk wildlife elements are:

Bad Canyon critical for Yellowstone cutthroat trout.

Peregrine falcon eyries (nest sites).

Crucial habitats for Federally Threatened and/ or Endangered Species, and BLM Special Status Species (Animals and Plants).

Crucial winter range areas and habitat for sagebrush obligate species such as sage grouse, Brewers sparrow and sage thrasher.

Shoshonea pulvinata, "Shoshonea" in Meeteetse Spires ACEC

f. Communities at Risk

Urban interface is scattered throughout the FMU. The heaviest concentration of developments near BLM land is around the Sundance Lodge Recreation Area exchange and in the South Hills area. Other interface areas include, Four Dances Natural Area. Nineteen Communities in this FMU are listed as “Communities at Risk in the Federal Register, Vol. 66, and No. 3. The communities are: Belfry, Billings, Bridger, Crow Agency, Custer, Edgar, Fromberg, Hardin, Huntley, Joliet, Laurel, Lavina, Park City, Pryor, Rapelje, Red lodge, Roberts, Ryegate, Shepherd, and Sweet Grass. With the exception of Billings, these communities consist of 150 to 5000 people and are rural in nature. Billings and surrounding area consist of approximately 100,000 people.

Community assistance/protection strategies are:

- Provide planning and implementation assistance to private landowners and CAR to reduce hazardous fuels as identified in county mitigations plans.
- Maintain Mutual Aid Agreements with county, city and volunteer fire departments (VFD).
- Continue to support fire departments through the use of Rural Fire Assistance (RFA) grant opportunities and making available surplus federal wildland fire apparatus and equipment to increase the local fire departments’ wildland fire capabilities.
- Continue to collaborate with and support county governments and fire suppression agencies in the development and implementation of countywide wildfire mitigation plans through community assistance/protection, considering CAR.
- Continue to focus on public prevention/education activities relating to the reduction of human cause wildland fire ignitions and the promotion of promotion of defensible space through Fire wise education.

Cooperation and coordination with partners - During meetings and workshops the FO will emphasize that the operational roles of federal agencies as partners in the Wildland Urban Interface are wildland firefighting, hazardous fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression is the responsibility of tribal, State, or local governments. Federal agencies may assist with exterior structural protection activities under formal Fire Protection Agreements that specify the mutual responsibilities of the partners, including funding.

Fire Management Objectives

- Fires are suppressed at a minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives.
- Use fuels treatment methods to move toward a natural fire regime and condition class 1.

- Where interest exists, involve public and private holdings in fuels treatment projects to treat larger landscapes.
- Sagebrush age class and structure will be improved with vegetation treatments (either mechanical or prescribed fire) in small areas where single age class structures are present.
- Maintain or improve the condition and vigor of sagebrush to provide forage and cover in designated mule deer/ pronghorn crucial winter range areas. (Maps will be provided to fire personnel.)
- Maintain/improve age class diversity in sagebrush cover in sage grouse habitats.
- Use mechanical and prescribed fire to move lands in condition class 2-3 to condition class 2 or 1.

Fire Management Strategies

Suppression - As indicated by the B category designation, unplanned wildland fire is not desired, due to urban interface, ACECs, the large amount of agricultural production and other values and uses on private and state land. The appropriate management response to wildland fire within the Musselshell FMU would generally be aggressive fire suppression.

The appropriate management response is guided by the suppression objectives listed by Fire Intensity Levels (FILs). All fires occurring at FILs 1-3 will be suppressed at <100 acres 98 percent of the time. All fires occurring at FIL 4-6 will be suppressed at <200 acres 95 percent of the time.

Constraints - The following guidelines are applicable to this FMU as established by the Fire/Fuels Management Plan Environmental Assessment/ Plan Amendment for Montana and the Dakotas (July 2003), p57-64), or by existing policy. Refer to Appendix F for full text of each constraint (Constraints beginning with “WF” are wildland fire constraints, “FM” are fuels management constraints).

Cultural and Paleontological Guidance - During fire suppression or fuels project planning, the FO archaeologist, paleontologist or cultural resource program lead would review the following guidelines from Appendix F and recommend or conduct those that are appropriate for the resources in the area:

Suppression

- **WF-C1, WF- C11 and WF-P1** for areas suspected to contain cultural or paleontology resources sensitive to surface disturbance.
- **WF-C2** for areas known to contain petroglyphs and pictographs
- **WF-C3 and WF-P2** for placement of staging areas and fire camps
- **WF-10** if Native American remains are discovered at any time during the incident or rehabilitation

Rehabilitation

- **WF-C4 and WF-C11** for pre-rehabilitation inventory
- **WF-C5 and WF-C6** for cultural resource representation on the rehab team

- **WF-C7** for monitoring of sensitive sites during rehab
- **WF-P3** for recovery of fossils

Range and weeds

- **FM-W1** for use of BMPs to limit non-native species
- **FM-W2** for species to be used during re-vegetation of suitable habitat
- **FM-W3** for use of chemicals on projects
- **FM-W4** for pre-project weed inventories
- **FM-W5** for pre-treatment of infestations prior to implementation
- **WF-W3** for placement of base camps relative to known infestations of non-natives
- **WF-W4** for timelines on post-fire weed inventories
- **WF-V1** for use of heavy equipment and retardant in VRM I and II areas
- **WF-V2** for fire rehab of VRM I and II areas

Threatened and Endangered Plants

- **WF-SP** and **FM-SP** Threatened and Endangered Species—Fish and Wildlife
- **WF-TE** and **FM-TE** for threatened and endangered species that are not currently known to occur on BiFO-administered lands (pallid sturgeon, whooping crane and prairie dog towns with documented occurrence of black-footed ferret). If information related to the occurrence of these species changes, the protection measures from the statewide plan amendment should be incorporated into this FMP.
- **WF-G1** and **FM-G1** for human disturbance in areas with gray wolf den or rendezvous sites.
- **WF/FM-E1** for human disturbance in areas with bald eagle nests.
- **WF/FM-E2** for human disturbance in areas with bald eagle winter roosts.
- **WF/FM-E3** for helicopter, aircraft and retardant use in areas with bald eagle winter roosts and nests.
- **FM-E4** for prescribed fire activity in areas with bald eagle winter roosts and nests.

Heavy equipment use

- **WF-E1** and **FM-E1** for use of heavy equipment in riparian areas.
Reporting to and coordination with SHPO (during and following the fire)
- **WF-C8**, **WF-C9** and **WF-C11**

Fuels Management (during project design, development and implementation)

- **FM-C1** for inventory type
- **FM-V1** for contrast ratings to be completed as part of project planning.
- **FM-V2** for visual resource specialist involvement in project planning.
- **FM-P1** for areas known or suspected to contain fossils resources
- **FM-C2** for Native American consultation
- **FM-C3** if Native American remains are discovered at any time during projects

Aquatic Species

- **FM-A1** for interim buffers around ponds, lakes, and streams in forested areas that contain Special Status fish species
- **FM-A2** for interim buffers around other fish bearing streams in forested areas
- **FM A3** for interim buffers around ponds, lakes and wetlands in forested areas
- **FM A4** for interim buffers for water bodies in non-forested rangeland ecosystems
- **FM-E4** for prescribed fire activity in areas with bald eagle winter roosts and nests.

Visual Resource Management - Incident management and Rehab in VRM I and II areas: Meeteetse Spires is a designated an ACEC area that is managed as a visual resource Class II.

Grizzly Bears - Although BLM lands lie outside the Recovery Zone the following interim measures will be applied to suitable grizzly habitat adjacent to the Recovery Zone (east of the Forest Service boundary along the foothills of the Beartooth Mountains). These interim measures are for human and grizzly bear safety and habitat protection. The measures apply to fire-related activities only. Upon delisting the “GRIZZLY BEAR Management Plan for Southwestern Montana “Final Programmatic EIS, 10/2002 guidelines will apply. (Appendix G)

OHV restrictions apply to the Acton area, Shepherd Ah-Nei area (North portion), and the South Hills. (OHV EIS 2001 Available at BIFO)

Wildland Fire Use - Currently there is no provision for wildland fire use in BiFO LUP, so it will not be addressed in the FMP.

Prescribed Fire - Only small acreages of treatment have been identified in this FMU. A 110 acre wildlife habitat improvement prescribed fire has been completed and is in the monitoring stage. Sundance Lodge Management Area, south of the city of Laurel, receives a planned 22 acre burn yearly to enhance wildlife habitat, facilitate irrigation and reduce hazardous fuels accumulations. Efforts are under way to identify and prioritize WUI and hazardous fuels areas for treatment in the remainder of the FMU. Emphasis is placed on the “Communities at Risk”: Belfry, Bridger, Fromberg, Edgar, Custer, Worden, Shepherd, Laurel, Park City, Lavina, Huntley, Ryegate, Rapelje, Roberts, and Joliet, and urban development: Yellowstone River Ranch.

Prescribed fire/mechanical treatments have been identified for 2500 acres with other areas under consideration. The following areas have been identified:

- Sage creek: Wildlife habitat improvement; 10 acres
- Crested wheatgrass: Rehabilitation to native grasslands; 1,000 have been identified in this FMU. A 110 acre wildlife habitat improvement

prescribed fire has been completed and is in the monitoring stage. Fuels Breaks comprised of 1,000

- Robinsons Draw: Fuels reduction/ sagebrush treatment; 500 acres
- Sundance Marsh: Fuels reduction and wetland rejuvenation; 10 acres
- Sundance Agricultural: Agricultural clearing/fuels reduction; 22 acres/year
- Silvertip Watershed: Fuels reduction/sagebrush treatment; 1,000 acres

Non-fire fuels Treatments - Fuels breaks comprised of 10 acres each have been completed in the South Hills and Four Dances management areas. These projects lie on the outskirts of the cities of Billings and Lockwood. Cutting has been completed with piles remaining to be disposed of. A 22-acre fuels break has been completed in the Yellowstone River Ranch subdivision, west of Columbus, Montana. Non-fire fuels treatments objectives are to:

- Use biological, chemical and mechanical treatments to achieve resource goals.
- Additional treatment areas will be identified through future inventories
- Use fuels management methods to reduce hazardous fuels while meeting other resource objectives.
- Reduce the threat of catastrophic wildfire by the incremental reduction of diseased timber fuel loading.
- Fuels treatment strategies will be employed, which move the landscape toward condition class 1.
- Prioritize needs for fuels treatments based on fuels inventory, wildland urban interface and resource values.

Post Fire Rehabilitation - Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health, and safety, and to help communities protect infrastructure.

Based on the potential effects of wild land fires to overall water quality and riparian systems, suppression, rehabilitation and fuels treatments will be carried out according to the Emergency Stabilization and Rehabilitation Guide (ESR) DM 620-3.

Management actions during wildfire events, prescribed fire or mechanical treatments will be conducted in the manner necessary to maintain the existing visual character of the landscape, reduce the potential for erosion, invasion of noxious weeds and reduce the potential for the establishment of new roads and trails.

Community Protection/Community Assistance - There are 16 communities at risk (Federal Register Vol. 66, No. 3) within this FMU. They are: Billings, Belfry, Bridger, Fromberg, Edgar, Custer, Worden, Shepherd, Laurel, Park City, Lavina, Huntley, Pryor, Ryegate, Rapelje, Roberts, and Joliet. Risk assessments are being completed and Mitigation plans are in place for the community of Rygate. Risk assessment and Mitigation planning is in progress

for the remaining communities with completion dates expected within 3 to 5 years.

Efforts are under way to identify and prioritize WUI and hazardous fuels areas for treatment in the remainder of the FMU.

2. FMU: B2 Musselshell

a. Area Description

The BiFO manages approximately 97,000 surface acres of public lands in the Musselshell area. Most of the parcels of public land are in southern Musselshell and northern Yellowstone counties BLM, Fish and Wildlife Service, private landowners, and State of Montana all own or administer land in this FMU. Grasslands (approximately 47,000 acres) and shrublands/forest (approximately 44,000 acres), commercial forest (approximately 6,000 acres) are the most common land cover categories.

b. Characteristics

This area consists of grasslands, shrublands and ponderosa pine forests typical of arid plains. Mature trees with Diameter at Breast Heights (DBHs) up to 30 inches occur with a mix of young pine (3-10') and rocky mountain juniper and sagebrush, intermixed with little bluestem, bluebunch and western wheatgrass, blue grama, native legumes. Meadows and open shrub land intermingle with the forested areas, creating a mosaic of habitats and fuels.

Ponderosa pine and grasses are characteristic of Fuel Models 1 and 2. Sagebrush areas are characteristic of Fuel Model 5. The predominant fuel models on public lands are models 1 and 5, with fuel load averages of .74 tons/acre to 3.0 tons/acre. Isolated parcels of public land consist of Ponderosa pine/native grasses mix, Fuel Model 2, with fuel loads of 4.0 tons/acre.

Heavy fuel loading and steep terrain make fire suppression difficult. The exclusion of fire has created heavy dead and down fuel loads within this FMU. Ponderosa pine and rocky mountain juniper encroachment create ladder fuels which drive fire into the crowns with devastating effects. Fire load averages 2.5 fires yearly. Numerous thunderstorms cross this FMU and lightning is the primary cause of ignition of wildland fires. Wildlife include: whitetail and mule deer, antelope, upland game birds, turkeys, elk, raptors, songbirds and numerous small mammals, amphibians, and reptiles. Critical habitats requiring protection from fire are: forested areas for elk winter range and sagebrush habitat supporting sage grouse and other wildlife. Riparian areas, particularly along the Musselshell River, and several ephemeral drainages are valuable wildlife and fisheries habitat. (Maps will be provided to fire personnel)

Numerous cultural sites exist within this area.

The area is predominately used for livestock grazing and dryland farming. Most of the land within this area is private with parcels of public land scattered throughout the area.

The area is rich in coal and has a history of coal production.

Most of this FMU is a VRM Class III.

The Musselshell area is designated PSD Class II.

c. Fire History

Federal records indicate 48 fires (20,500 acres) have burned in the 20 year period between 1984 -2003. One very large fire burned 173,000 acres in 1984, and numerous other fires with acreages of 10-1,000 acres have occurs. Fire behavior is high to extreme under dry or windy conditions. Many wind driven fires have occurred over this landscape.

d. Fire Regime/Condition Class

The dominant vegetation type within this FMU is the grassland/shrub/forest community. The shrublands/forest group current condition class is at a moderate to high risk of loss to key ecological components. Past management activities such as fire suppression, livestock grazing, and urbanization have changed the fire regime. Historic record indicates a natural fire frequency of 20 years In order to assist in meeting LUP objectives, decadal treatment acres for fire management activities within this FMZ have been established at 15,300 acres.

FRCC data are summarized below. The Standard Landscape Method was applied to characterize FRCC per direction contained in the *Interagency Fire Regime Condition Class Guidebook* (Hann et al., 2002).

MUSSELHELL FMU					
PNVG	Historic Fire Regime	Condition Class	Federal Acres	Total FMU Acres	% of FMU
PGRA3	III	II	43,26	423,000	45
PPIN9	I	III	53,320	517,000	55
FMU Totals		II	96,947	942,417	100%

e. Values at Risk

Heavy recreational use and urban interface combine to create safety concerns for firefighters and the general public on a 4,800 acre parcel of public land within this area known as Shepherd Ah-Nei, which is located north of the

town of Shepherd. Developing urban interface areas (subdivisions) exist in Horsethief Creek, Parrot Creek, Dean Creek, Fishel Creek and along Highway 83 from Roundup south to 30 Mile. A fuels reduction project is currently in the implementation stages in the Horsethief area. In addition individual housing developments are scattered throughout the FMU. Other values are as follows:

- Areas designated as ACECs include the Castle Butte Site for rock art, the Stark site and Steamboat Butte for cultural values.
- Fire susceptible coal seams
- Historic homesteads are common, though a small percentage of those sites are National Register eligible.
- Rock art is common, and found in virtually all areas inventoried.

There are three known localities of concern in the Musselshell FMU:

Castle Butte. The Castle Butte ACEC is a National Register rock art site situated on the flanks of an exposed isolated butte.

Steamboat Butte. Located about 15 miles NW of Castle Butte, Steamboat Butte is composed of rock art.

Stark Site Complex. The Stark Complex ACEC is situated in the northwestern corner of the Musselshell FMU and represents a typical prehistoric Buffalo Jump site.

Lands and Realty

Bull Mountain Radio Repeater (BLM) T. 6 S., R. 26 E., sec 21, SW1/4SW1/4 (on private lands). Co-located with communications for the Montana Highway Patrol, DNRC, Montana Dept. of Transportation, and the Border Patrol.

Burlington Northern Railroad Microwave Communications site (private), located T. 3 N., R. 30 E., sec 10, NE1/4NW1/4, under BLM authorization MTM-001035.

NorthWestern Energy, 100 KV electric transmission line, also known as the Broadview-Roundup 100 KV; and the Painted Robe-Roundup 100 KV transmission line.

Lake Mason Oil and Gas Field, located approximately just south of the Lake Mason Wildlife Refuge.

Conoco Tank Farm, located in T. 8 N., R. 24 E., sec 7, SE1/4, authorized by BLM right-of-way MTM-0-40578.

The following recreation areas are within the Musselshell FMU:

Shepherd Ah Nei –vault toilette, signs and trails system.

Asparagus Point, Acton, 17 Mile and 21 Mile are undeveloped. All sites have site entrance signs that should be protected.

OHV activities could be affected by closures due to erosion and other potential resource concerns resulting from fire events and fire suppression tactics, particularly at the Shepherd Ah Nei and Acton areas.

f. Communities at Risk

Urban interface is scattered throughout the parcels of public land. Two communities in this FMU are listed as “Communities at Risk in the Federal Register, Vol 66, No. 3. The communities are: Roundup and Musselshell. These communities consist of 150 to 5000 people and are rural in nature. Other developed areas include the subdivisions in Parrot Creek, Fishel Creek, Dean Creek and along highway 85 to 30 mile south of Roundup. Other interface areas include Shepard Ah Nei.

Community assistance/protection strategies are:

- Provide planning and implementation assistance to private landowners and CAR to reduce hazardous fuels as identified in count mitigations plans.
- Maintain Mutual Aid Agreements with county, city and volunteer fire departments (VFD).
- Continue to support fire departments through the use of Rural Fire Assistance (RFA) grant opportunities and making available surplus federal wildland fire apparatus and equipment to increase the local fire departments’ wildland fire capabilities.
- Continue to collaborate with and support county governments and fire suppression agencies in the development and implementation of countywide wildfire mitigation plans through community assistance/protection, considering CAR.
- Continue to focus on public education activities relating to the reduction of human cause wildland fire ignitions and the promotion of promotion of defensible space through Firewise education.

Cooperation and coordination with partners - During meetings and workshops the FO will emphasize that the operational roles of federal agencies as partners in the Wildland Urban Interface are wildland firefighting, hazardous fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression is the responsibility of tribal, State, or local governments. Federal agencies may assist with exterior structural protection activities under formal Fire Protection Agreements that specify the mutual responsibilities of the partners, including funding.

Fire Management Objectives

- Fires are suppressed at a minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives.
- Fuels treatments will be completed to improve lands to condition class 1.
- Where interest exists, involve public and private holdings in fuels treatment projects to treat larger landscapes.
- Sagebrush age class and structure will be improved with vegetation treatments (either mechanical or prescribed fire) in small areas where single age class structures are present.
- Maintain or improve the condition and vigor of sagebrush to provide forage and cover in designated mule deer/ pronghorn crucial winter range areas. (Maps will be provided to fire personnel.)
- Maintain/improve age class diversity in sagebrush cover in sage grouse habitats.
- Reduce the threat of catastrophic wildfire by the incremental reduction of diseased timber fuel loading.
- Use mechanical and prescribed fire to move lands in condition class 2-3 to condition class 2 or 1.

Fire Management Strategies

Suppression - As indicated by the B category designation, unplanned wildland fire is not desired, due to urban interface, ACECs, the large amount of agricultural production and other values and uses on private and state land. The appropriate management response to wildland fire within the Sage and Grasslands unit would generally be aggressive fire suppression.

The appropriate management response is guided by the suppression objectives listed by FILs. All fires occurring at FILs 1-3 will be suppressed at <100 acres 98 percent of the time. All fires occurring at FIL 4-6 will be suppressed at <200 acres 95 percent of the time. Once the decadal burn target has been reached from either planned or unplanned ignitions, a review of objectives and strategies should take place to develop new suppression criteria on all wildland fires

Constraints - Manage visual resources according to established guidelines for VRM classes in accordance with procedures outlined in the BLM Handbook 8410-1.

The following guidelines are applicable to this FMU as established by the Fire/Fuels Management Plan Environmental Assessment/ Plan Amendment for Montana and the Dakotas (July 2003), p57-64), or by existing policy. Refer to Appendix F for full text of each constraint (Constraints beginning with “WF” are wildland fire constraints, “FM” are fuels management constraints).

Cultural and Paleontological Guidance - During fire suppression or fuels project planning, the FO archaeologist, paleontologist or cultural resource program lead would review the following guidelines from Appendix F and recommend or conduct those that are appropriate for the resources in the area:

Suppression

- **WF-C1, WF-C11 and WF-P1** for areas suspected to contain cultural or paleontologic resources sensitive to surface disturbance.
- **WF-C2** for areas known to contain petroglyphs and pictographs
- **WF-C3 and WF-P2** for placement of staging areas and fire camps
- **WF-10** if Native American remains are discovered at any time during the incident or rehabilitation

Rehabilitation

- **WF-C4 and WF-C11** for pre-rehabilitation inventory
- **WF-C5 and WF-C6** for cultural resource representation on the rehab team
- **WF-C7** for monitoring of sensitive sites during rehab
- **WF-P3** for recovery of fossils

Range and Weeds

- **WF-W1** for use of BMPs to limit non-native species
- **WF-W2** for species to be used during re-vegetation of suitable habitat
- **WF-W3** for placement of base camps relative to known infestations of non-natives
- **WF-W4** for timelines on post-fire weed inventories

Reporting to and coordination with SHPO (during and following the fire)

- **WF-C8, WF-C9, and WF-C11**
- **WF-SP and FM-SP.**

Threatened and Endangered Species/Fish and Wildlife

- **WF-TE and FM TE** for threatened and endangered species that are not currently known to occur on BiFO-administered lands (pallid sturgeon, whooping crane, and prairie dog towns with documented occurrence of black footed ferret). If information related to the occurrence of these species changes, the protection measures from the statewide plan amendment should be incorporated into this FMP.
- **WF/FM-E1** for human disturbance in areas with bald eagle nests.
- **WF/FM-E2** for human disturbance in areas with bald eagle winter roosts.
- **WF/FM-E3** for helicopter, aircraft and retardant use in areas with bald eagle winter roosts and nests.

Heavy equipment use

- **WF-E1 and FM-E1** for use of heavy equipment in riparian areas. Suppression and Rehab in VRM I and II areas: Wilderness Study Area (WSA) are managed VRM Class I.
- **WF-V1** for use of heavy equipment and retardant in VRM I and II areas
- **WF-V2** for fire rehab of VRM I and II areas.

Fuels Management (during project design, development and implementation)

- **FM-C1** for inventory type
- **FM-P1** for areas known or suspected to contain fossils resources
- **FM-C2** for Native American consultation
- **FM-C3** if Native American remains are discovered at any time during projects
- **FM-W1** for use of BMPs to limit non-native species
- **FM-W2** for species to be used during re-vegetation of suitable habitat
- **FM-W3** for use of chemicals on projects
- **FM-W4** for pre-project weed inventories
- **FM-W5** for pre-treatment of infestations prior to implementation
- **FM-E4** for prescribed fire activity in areas with bald eagle winter roosts and nests.

Aquatic Species

- **FM-A1** for interim buffers around ponds, lakes, and streams in forested areas that contain Special Status fish species
- **FM-A2** for interim buffers around other fish bearing streams in forested areas
- **FM A3** for interim buffers around ponds, lakes and wetlands in forested areas
- **FM A4** for interim buffers for water bodies in non-forested rangeland ecosystems

- **FM-V1** for contrast ratings to be completed as part of project planning
- **FM-V2** for visual resource specialist involvement in project planning

Off-road vehicle restrictions apply to Hamilton's (Asparagus) Point, as detailed in the OHV EIS (2001) (See Maps).

Wildland Fire Use - Currently there is no provision for wildland fire use in BiFO LUP.

Prescribed Fire - A number of projects have been identified to improve productivity and carrying capacity for livestock and wildlife, create nesting habitat, and reduce hazardous fuels. Treat selected diseased timber areas to improve productivity, reduce fuel loading, and reduce the opportunity for catastrophic wildfire. Prescribed fire treatments have been identified for 3,300 acres with other areas under consideration. The following project areas have been identified:

- Horsethief fuels reduction/habitat improvement: 2,000 acres
- Ah Nei 1,000 acres fuels reduction.
- Parrot/Fishel Creek: fuels reduction/habitat improvement: 200 acres
- Action: fuels reduction/habitat improvement: 600 acres
- Rock Creek/Steamboat Butte: fuels reduction/habitat improvement: 500 acres

Non-fire fuels Treatments - The Horsethief project is an in-progress 10,348 acre WUI Fuels reduction project near the city of Roundup. This project includes a combination of mechanical and prescribed fire treatments in 3,075 acres of forested lands. Over 300 acres have been mechanically treated, with the remainder of the project is planned for completion within the next three to five years. Treatments utilize Indefinite Delivery/ Indefinite Quantity (IDIQ) contracts and sale of firewood, and wood products, as well as individual fire wood gathering.

A 17-acre Fuels Break has been completed in the Ah Nei Management Area, protecting private homes and a subdivision in the area.

Non-Fire Fuels Treatment objectives area:

- Biological, chemical and mechanical treatments will be used to achieve resource goals.
- Additional treatment areas will be identified through future inventories
- Use fuels management methods to reduce hazardous fuels while meeting other resource objectives.
- Reduce the threat of catastrophic wildfire by the incremental reduction of diseased timber fuel loading.
- Fuels treatment strategies will be employed, which move the landscape toward condition class 1.
- Prioritize needs for fuels treatments based on fuels inventory, wildland urban interface and resource values.

Post Fire Rehabilitation - Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health, and safety, and to help communities protect infrastructure.

Based on the potential effects of wild land fires to overall water quality and riparian systems, suppression, rehabilitation and fuels treatments will be carried out according to the Emergency Stabilization and Rehabilitation Guide (ESR) DM 620-3.

Management actions during wildfire events, prescribed fire or mechanical treatments will be conducted in the manner necessary to maintain the existing visual character of the landscape.

3. FMU: C1 BLM Pryor Mountains

a. Area Description

The Pryor Mountains are located 30 air miles south of Billings in Carbon County. Three Wilderness Study Areas (WSAs) exist in the Pryor Mountains: 1. Pryor Mountain WSA, 2. Big Horn Tack On WSA, and 3. Burnt Timber Canyon WSA. This area includes the East Pryor Mountain Horse Range ACEC encompassing the Pryor Mountains wild horse range. Area ownership is approximately 79 percent BLM, 18 percent private, and 3 percent Montana

State land). Public lands border the Crow Indian Reservation on the north, the Big Horn Canyon National Recreation Area on the east, and Pryor Mountain unit of the Beartooth National Forest on the west. The remaining area is surrounded by private lands.

The BiFO manages approximately 50,060 surface acres of public land in the Pryor Mountains area (area 3). Grasslands (approximately 20,800 acres) make up 49 percent of the land cover; shrublands (10,800 acres) make up 25 percent of the land cover; and forestlands (10,300 acres) make up about 24 percent of the land cover.

b. Characteristics

The terrain is very steep with elevations to 8,300 feet. Deep, vertical walled canyons cut into the limestone. Canyons on the western and southern slopes are steep and deeply entrenched forming karst topography with many caves, shelters and sheltered valleys. Soils range from shallow-silty range 10-14 inch PZ to grazeable woodland/sub-alpine meadow complex in the 20+ inch PZ, with calcareous sub soils on steep mountain slopes. This area provides drainage into Crooked Creek and the Big Horn River. Numerous cultural sites exist in the area. The area has a history of shaft mining for uranium and contains a number of old mine shafts, numerous claim validation pits and roads from past mining activities. This area provides habitat for mule deer, Rocky mountain bighorn sheep, black bear, wild horses, blue grouse, ruffed grouse, sage-grouse, raptors (peregrine falcons, goshawks) and songbirds. Trout habitats in Crooked Creek and the Big Horn River are impacted by runoff. Insect infestation exists in the east portion along the south aspect. The area is predominately used for timber, firewood, recreation and livestock grazing. Based on range topography and vegetation, estimates of the ecological site inventory in 1992 for the Pryor Mountain Wild Horse Range indicate that almost 25 percent of the range is rock outcrop or dense trees and produces little or no forage.

High elevation vegetation consists of, mature Subalpine fir/spruce and Douglas-fir, limber pine forest, intermingled with grassland made up of: Idaho fescue, bluebunch and slender wheatgrass, Columbia and green needlegrass, lupine, and black sagebrush, with pockets of isolated lodgepole pine. Low elevation vegetation consists of Rocky Mountain Juniper/mahogany and big sagebrush/saltbush. Fuel loads range from .74 ton/acre in the grassy areas to 3 to 5 tons/ acre in the Douglas-fir complex. The majority of fuels fit the fuel models 1, 8, and 10.

c. Fire History

Lightning is the predominant cause of wildland fires in this FMU. Most fires occur between June and September with the highest occurrence during late July and August.

One large fire (Red Waffle) occurred in 2002, burning approximately 1,000 acres of BLM and 4,000 acres Forest Service land on Red Pryor Mountain. This fire exhibited extreme fire behavior and resulted in a stand replacement fire, extensive erosion damage and loss of fisheries habitat for Yellowstone Cutthroat Trout. Federal records show 13 fires have burned 10.5 acres on federal lands during the 20 year period (1984-2003). Fire behavior is low to moderate during normal precipitation years and high to very high during low moisture years.

d. Fire Regime/Condition Class

Timbered lands are the predominate vegetation type in this FMU. Available data indicates that much of this FMU is in condition class 1; however, ground observation does not support this conclusion. Much of the area is overstocked, decadent with insect and fungus kill influenced by decades of fire exclusion. Fire history research is in progress with a completion date of 2005. Past management activities including wild horse use and fire suppression have changed the fire regime. Records are incomplete, but indicate a return of fire every 100 years. Treatment applications outlined in the FMP intend to move the landscape and fire regimes closer to their historical condition. Management considerations including wildlife, Wild Horse habitat and political considerations do not allow moving condition class II & III to condition class I. In order to assist in meeting LUP objectives, decadal treatment acres for fire management activities within this FMZ have been established at 3,800 acres.

FRCC data are summarized below. The Standard Landscape Method was applied to characterize FRCC per direction contained in the *Interagency Fire Regime Condition Class Guidebook* (Hann et al., 2002).

BLM Pryor MTN. FMU					
PNVG	Historic Fire Regime	Condition Class	Federal Acres	Total FMU Acres	% of FMU
SPFI2	III-V	II	5,983	5,983	10
DSHB1	III	II	22,500	26,924	45
JUST1	III-IV	I	15,00	17,949	30
DFIR2	III	III	7,500	8,974	15
FMU Totals		II	50,059	137,875	100%

e. Values at Risk

In the Pryor Mountain area, much of the lower elevation canyon country to the south and west is home to a wide range and time depth of cultural resource values. In general, the Pryor Mountains area is estimated to average one to three National Register eligible sites per section. Since most of these sites

would be of a type to suffer little damage from fire, planning for protection should focus on avoidance by fire suppression efforts.

A resource advisor should be consulted when fires threaten or occur in these areas.

At risk cultural elements include historic structures such as the:

- Rock Art
- Demijohn Flat District: this district contains hundreds of tepee rings
- Penn's Cabin: maintained for visitor use by BLM
- Pryor Mountain wild horses are a critical component of a remnant gene pool of Spanish Colonial Horse or Spanish Mustang.

At risk elements pertaining to vegetation, soils and water:

- Range and forage for an average population size of about 140
- Developed water sources
- Loss of native vegetation due to invasive plant species on fire impacted areas

At risk elements pertaining to Lands and Realty:

- Pryor Mountain Radio Repeater T. 8 S., R. 28 E., sec 21, NW1/4NW1/4SE1/4.
- Britton Springs BLM Administrative Facility for the PMWHR, T. 58 N., R. 95 W., sec 20, NW1/4, 6th PM, Wyoming
- Pacificorp Electric Transmission Line 230 KV From a point in T. 7 S., R. 25 E., sec 29, NE1/4NE1/4, in an easterly direction. MTM-52236. Emergency contact: Utah Power at 1-800-715-9238

Critical Wildlife/plant habitat:

- Rocky Mountain bighorn sheep
- Yellowstone cutthroat trout
- Curlleaf mountain mahogany and sagebrush
- Designated mule deer/ bighorn sheep crucial winter range
- Bear Canyon, (Important Bird Area for Special Status Species) (blue-gray gnatcatcher and other unique bird species)
- Peregrine falcon eyries
- 600 acres of dense timber stands with forest canopy cover greater than 70 percent (PMWHR Plan-pg.23) as thermal cover for wildlife and wild horses.

Special Status Species Plants:

- *Shoshonea pulvinata*, "Shoshonea"
- *Lesquerella lescii*, "Pryor Mountain bladderpod"

f. Communities at Risk

There are no communities at risk and only limited Wildland Urban interface in this FMU.

Cooperation and coordination with partners - During meetings and workshops the FO will emphasize that the operational roles of federal agencies as partners in the Wildland Urban Interface are wildland firefighting, hazardous fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression is the responsibility of tribal, State, or local governments. Federal agencies may assist with exterior structural protection activities under formal Fire Protection Agreements that specify the mutual responsibilities of the partners, including funding.

Fire Management Objectives

- Fires are suppressed at a minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives.
- Use fuels treatment methods to move 3000 acres of the FMU toward fire regime and condition class 1.
- Maintain or improve the condition and vigor of sagebrush to provide forage and cover in designated mule deer/ pronghorn crucial winter range areas. (Maps will be provided to fire personnel.)
- Maintain/improve age class diversity in sagebrush cover in sage grouse habitats.
- Reduce the threat of catastrophic wildfire by the incremental reduction of diseased timber fuel loading.
- Protect critical wild horse water sources. Data will be provided to fire personnel.
- Aggressively protect known critical use areas for the wild horse herd. (PMWHR Herd Management Plan)

Fire Management Strategies

Suppression - As indicated by the C category designation, fire is desired to manage ecosystems within this FMU. However, current vegetative and political conditions place constraints on its use. The East Pryor Mountain ACEC, Wilderness Study Areas, Crow Reservation, Forest Service, Big Horn National Recreation lands, commercial timber, high erosion potential and other resources of high value dictate a need for careful planning for fire use. The appropriate management response is guided by the suppression objectives listed by FILs. All fires occurring at FIL 1-3 will be suppressed at <500 acres 98 percent of the time at FIL 4-6 will be suppressed at <200 acres 95 percent of the time. Once the decadal burn target has been reached from either planned or unplanned ignitions, a review of objectives and strategies should take place to develop new suppression criteria on all wildland fires

Constraints - The following guidelines are applicable to this FMU as established by the Fire/Fuels Management Plan Environmental Assessment/ Plan Amendment for Montana and the Dakotas (July 2003, p57-64), or by existing policy. Refer to Appendix F for full text of each constraint (Constraints beginning with “WF” are wildland fire constraints, “FM” are fuels management constraints).

Cultural and Paleontological Guidance - During fire suppression or fuels project planning, the FO archaeologist, paleontologist or cultural resource program lead would review the following guidelines from Appendix F and recommend or conduct those that are appropriate for the resources in the area:

Suppression

- **WF-C1, WF- C11 and WF-P1** for areas suspected to contain cultural or paleontologic resources sensitive to surface disturbance.
- **WF-C2** for areas known to contain petroglyphs and pictographs
- **WF-C3 and WF-P2** for placement of staging areas and fire camps
- **WF-10** if Native American remains are discovered at any time during the incident or rehabilitation

Rehabilitation

- **WF-C4 and WF-C11** for pre-rehabilitation inventory
- **WF-C5 and WF-C6** for cultural resource representation on the rehab team
- **WF-C7** for monitoring of sensitive sites during rehab
- **WF-P3** for recovery of fossils

Reporting to and coordination with SHPO (during and following the fire)

- **WF-C8, WF-C9, and WF-C11**

Fuels Management (during project design, development and implementation)

- **FM-C1** for inventory type
- **FM-P1** for areas known or suspected to contain fossils resources
- **FM-C2** for Native American consultation
- **FM-C3** if Native American remains are discovered at any time during projects

Range and weeds

Wildfire suppression

- **WF-W1** for use of BMPs to limit non-native species
- **WF-W2** for species to be used during re-vegetation of suitable habitat
- **WF-W3** for placement of base camps relative to known infestations of non-natives
- **WF-W4** for timelines on post-fire weed inventories

Fuels management

- **FM-W1** for use of BMPs to limit non-native species
- **FM-W2** for species to be used during re-vegetation of suitable habitat
- **FM-W3** for use of chemicals on projects
- **FM-W4** for pre-project weed inventories
- **FM-W5** for pre-treatment of infestations prior to implementation

Fuels management

- Areas of occupied *Shosonea pulvynata* and *Townsendia spatulata* habitat within a proposed project area will have a “site specific” no activity buffer established by a qualified botanist, biologist, or ecologist, to protect occupied habitat.
- **WF-SP and FM-SP** Aquatic Species
- **FM-A1** for interim buffers around ponds, lakes, and streams in forested areas that contain Special Status fish species
- **FM-A2** for interim buffers around other fish bearing streams in forested areas
- **FM A3** for interim buffers around ponds, lakes and wetlands in forested areas
- **FM A4** for interim buffers for water bodies in non-forested rangeland ecosystems

Threatened and Endangered Species—Fish and Wildlife

- **WF-TE and FM TE** for threatened and endangered species that are not currently known to occur on BiFO-administered lands (pallid sturgeon, whooping crane and prairie dog towns with documented occurrence of black-footed ferret). If information related to the occurrence of these species changes, the protection measures from the statewide plan amendment should be incorporated into this FMP.

Gray Wolf

- **WF-G1 and FM-G1** for human disturbance in areas with gray wolf den or rendezvous sites.

Bald eagle

- **WF/FM-E1** for human disturbance in areas with bald eagle nests.
- **WF/FM-E2** for human disturbance in areas with bald eagle winter roosts.
- **WF/FM-E3** for helicopter, aircraft and retardant use in areas with bald eagle winter roosts and nests.
- **FM-E4** for prescribed fire activity in areas with bald eagle winter roosts and nests.

Canada Lynx

- **WF/FM-L1** for activities that could cause loss of suitable habitat for lynx.
- **WF/FM-L2** for salvage harvest in lynx habitat.
- **WF/FM-L3** for constructing temporary roads, fire breaks, machine lines etc. in lynx habitat
- **WF/FM-L4** for restricting livestock grazing following fire in lynx habitat
- **WF/FM-L5** for preservation of large woody debris during projects in lynx habitat
- **WF/FM-L6** for introducing fire into lynx habitat.
- **WF/FM-L7** for burn prescriptions in snowshoe hare habitat.

Visual Resource Management

Incident management and Rehab in VRM I and II areas: All Wilderness Study Area is managed as VRM Class I.

- **WF-V1** for use of heavy equipment and retardant in VRM I and II areas
- **WF-V2** for fire rehab of VRM I and II areas

Fuels Management

- **FM-V1** for contrast ratings to be completed as part of project planning
- **FM-V2** for visual resource specialist involvement in project planning Wilderness
- Fuels management activities, must not impair wilderness values. Inclusion of a WSA in a polygon does not automatically enable all types of treatments and prescribed burning associated with the category to be completed within the WSA. Treatment will not impair, and will in fact enhance, wilderness values.
- Minimum Impact Suppression Tactics will be employed.

Wildland Fire Use - There is no current provision for wildland fire use in the BiFO LUP.

Prescribed Fire - No prescribed fire or mechanical treatments have been used by the BLM in this FMU in the past 20 years. Fuels analysis was completed on BLM administered lands in 2000 and a fire history study is planned for 2005.

Prescribed fire treatments have been identified for 1200 acres. Other areas under consideration include treatment of 2,000 acres of condition class III Douglas fir/ limber pine to move it to condition class I/II.

Other project areas identified are:

Bighorn Sheep Habitat improvement/fuels reduction:	1,000 acres
Wild Horse habitat improvement/fuels reduction	200 acres

Non-fire fuels Treatments - Non-fire treatments to date have included clearing of roads to create hazardous fuel breaks.

Non-Fire Fuels Treatment objectives:

- Biological, chemical and mechanical treatments will be used to achieve resource goals.
- Additional treatment areas will be identified through future inventories
- Use fuels management methods to reduce hazardous fuels while meeting other resource objectives.
- Reduce the threat of catastrophic wildfire by the incremental reduction of diseased timber fuel loading.
- Fuels treatment strategies will be employed, which move the landscape toward condition class 1.
- Prioritize needs for fuels treatments based on fuels inventory, wildland urban interface and resource values.
- Use treatments that allow use of by-products where appropriate.

Post Fire Rehabilitation - Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health, and safety, and to help communities protect infrastructure.

Based on the potential effects of wild land fires to overall water quality and riparian systems, suppression, rehabilitation and fuels treatments will be carried out according to the Emergency Stabilization and Rehabilitation Guide (ESR) DM 620-3.

Management actions during wildfire events, prescribed fire or mechanical treatments will be conducted in the manner necessary to maintain the existing visual character of the landscape.

Community Protection/Community Assistance - There are no communities in this FMU.

4. FMU: USFS Pryor Mountain Unit

a. Area Description

The Pryor Unit FMU includes 74,130 acres of Forest Service land, intermingled with 2908 acres of private land. The elevation of the Pryor Unit starts at approximately 5500 feet and ascends to 8700 feet. The Pryor Mountains are sharply dissected by steep walled canyons with limited access. The Pryor Unit is bordered by Crow Reservation land on the North and Pryor Mountain Wild Horse Range on the East and South. The West side of the FMU is bordered by non-forested lands administered by the BLM. The Billings Field Office, in accordance with the Custer National Forest FMP, is responsible for fire protection in the USFS Pryor Mountain FMU. BLM is responsible for fire suppression on private lands (affidavit lands) located in the Sage Creek drainage within the boundaries of the Pryor Unit. Crooked Creek and Sage Creek are the two flowing streams that form major drainages in the FMU. Crooked Creek flows into Big Horn Lake. Sage Creek drains to the North and West around the mountain then South to the Shoshone River. Small tracts of private land intermingle with public lands along the border with the Crow Reservation.

b. Characteristics

The Pryor Mountains are characterized by steep terrain with elevations to 8,700 feet. Deep, vertical walled canyons cut into the limestone. Numerous cultural sites exist in the area. The area has a history of shaft mining for uranium and contains old mine shafts, claim validation pits, and roads from past mining activities. This area provides habitat for mule deer, rocky mountain bighorn sheep, black bear, wild horses, blue grouse, ruffed grouse, sage-grouse, raptors (peregrine falcons, goshawks) and songbirds. Yellowstone cutthroat trout habitat includes Crooked Creek and Piney Creek. This watershed drains into the Big Horn River. Insect infestation has occurred

along the south aspect in Crooked Creek drainage. The area is predominately used for timber, firewood, recreation and livestock grazing. Based on range topography and vegetation inventory (1992) in the adjacent Wild Horse Range, estimates indicate that almost 25 percent of the range is rock outcrop. Vegetation can be broken into groups: 1. Subalpine fir/spruce 2. Douglas-fir 3. Limber pine, 4. Grassland made up of: Idaho fescue, bluebunch and slender wheatgrass, Columbia and green needlegrass, lupine, and black sagebrush 5. Lodgepole pine. Fuel loads range from .74 ton/acre in the grassy areas to 3 to 5 tons/ acre in the Douglas-fir complex. The majority of fuels fit the fire behavior fuel models 1, 8, or 10.

c. Fire History

Lightning is the predominant cause of wildland fires in this FMU. Most fires occur between June and September with the highest occurrence during late July and August.

Federal records indicate 23 fires (4067 acres) have burned in the 20 year period between 1984 -2003.

Fire behavior is generally low to moderate. High rates of spread occur during high temperature, low-relative humidity conditions especially on steep terrain. Historically fires have exhibited rapid rates of spread and traversed large limestone canyons when frontal winds combine with topography and dry conditions. A single event burned 4000 acres of timber in 2002.

Fire Regime/Condition Class

The predominant vegetative type in this FMU is timber. Available data indicates that much of this FMU is in condition class 1; however, ground observation does not support this conclusion. Much of the area is overstocked with evidence of insect and disease mortality influenced by decades of fire suppression.

FRCC data are summarized below. The Standard Landscape Method was applied to characterize FRCC per direction contained in the *Interagency Fire Regime Condition Class Guidebook* (Hann et al., 2002).

FS Pryor FMU					
PNVG	Historic Fire Regime	Condition Class	% of Federal Acres	Total FMU Acres	% of FMU
SPFI2	III	II	19,230	19,230	25%
DFIR2	III	III	54,870	57,778	75%
Total FMU	III	II	74,130	77,130	100%

d. Values at Risk

- Sage Creek Campground T. 7 S., R. 26 E., sec 20, W1/2.
- Sage Creek Ranger Station T. 7 S., R. 26 E., sec 20, SW1/4.
- Schwend Ranch and related structures in the Sage Creek area.
- Big Ice Cave, recreation & picnic area, T. 8 S., R. 27 E., sec 10, NW1/4.
- Western Area Power Administration Transmission line (USFS permit).
- Microwave communications site, T. 8 S., R. 28 E., sec 6, NE1/4.
- Communication Services, Inc. (USFS permit).
- Mobile radio site, T. 8 S., R. 28 E., sec 6, NW1/4.
- Pacificorp Electric Transmission Line 230 KV, permit BEA84.
- Yellowstone cutthroat trout Fisheries.
- Summer cabins.
- Road identification/control signage.
- Approximately 7000 acres of commercial timber.

e. Communities at Risk

No “Communities at Risk” lie within the boundaries of this FMU. However, interface in the form of ranch dwellings/buildings and summer cabins, exists in the Sage Creek Drainage on Forest Service land. Fuels reduction is the responsibility of the Forest Service for the land in this FMU..

Community assistance/protection strategies are:

- Provide planning and implementation assistance to private landowners and CAR to reduce hazardous fuels as identified in mitigations plans.
- Maintain Mutual Aid Agreements with county volunteer fire departments (VFD).
- Continue to support fire departments through the use of Rural Fire Assistance (RFA) grant opportunities and making available surplus federal wildland fire apparatus and equipment to increase the local fire department capabilities.
- Continue collaboration with county governments and fire suppression agencies in the development and implementation of countywide wildfire mitigation plans through community assistance/protection, considering CAR.
- Continue to focus on public education activities relating to the reduction of human cause wildland fire ignitions and the promotion of defensible space through Firewise education program.

Cooperation and coordination with partners:

During meetings and workshops, the BiFO, in cooperation with the USFS Beartooth Ranger District, will emphasize the operational roles of federal agencies as partners in the Wildland Urban Interface. This role includes: wildland firefighting, hazardous fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression is the responsibility of local governments. Federal agencies may assist with exterior

structural protection activities under formal Fire Protection Agreements that specify the mutual responsibilities of the partners, including funding.

Fire Management Objectives

Use fuels treatment methods to move toward a historic fire regime and condition class 1.

Fires are suppressed cost effectively, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives.

Minimize acres burned.

Use confinement strategies when necessary to provide for firefighter safety.

Fire Management Strategies

Suppression

Suppression includes all actions taken to extinguish and/or influence the growth of unwanted wildland fires. Suppression fires will receive prompt, cost effective suppression actions utilizing strategies identified for the area that is burning.

The cause will be determined for every fire and reported on an individual fire report, 5100-29. Fires of more than 10 acres will be mapped using GIS technology.

The appropriate management response is guided by the suppression objectives listed by FILs. Fires occurring at FILs 1-6 will be suppressed between 25 and 100 acres 98 percent of the time.

Constraints

- Heavy equipment use in Pryor FMU will be approved on a case-by-case basis.
- An archeological resource advisor will be notified before heavy equipment is used.
- Provide a buffer for retardant use adjacent to any flowing stream.

Wildland Fire Use

The Custer National Forest Plan currently does not have provision for fire use in the Pryor unit.

Prescribed Fire

Fuels treatments are the responsibility of the USFS. The USFS has completed several small prescribed fires totaling approximately 2720 acres and has used mechanical treatments totaling approximately 900 acres to remove insect damage and reduce fuel loads in the Crooked Creek area.

A planned fuels treatment in the Pryor unit is the “Big Pryor Environmental Analysis” includes approximately 3000 acres of sagebrush and conifer encroachment burning on the west side of Big Pryor Mountain.

Mechanical treatments include personal use post and pole harvest and noxious weed spraying of between 25 and 50 acres annually.

The following mechanical treatment areas have been identified:

- Stevens Hill post and pole harvest.
- Sage Creek noxious weed spraying.
- Crooked Creek noxious weed spraying.
- Personal use firewood area.

National Fire Plan Burned Area Rehabilitation on the Red Waffle Fire including:

- Road Stabilization
- Fencing
- Weeds Treatment
- Fish Structures
- Reforestation
- Hazardous Fuels Treatment
- Heritage

Non-Fire Fuels Treatments

- Mechanical treatments may be used to achieve resource goals.
- Reduce the threat of catastrophic wildfire by the incremental reduction of diseased timber fuel loading.
- Fuels treatment strategies will be employed, when compatible with resource objectives, designed to move the landscape toward condition class 1.
- Prioritize needs for fuels treatments based on resource values at risk

Post Fire Rehabilitation

Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health and safety, and to help communities protect infrastructure.

Based on the potential effects of wild land fires to overall water quality and riparian systems, suppression, rehabilitation and fuels treatments will be carried out according to the Burned Area Rehabilitation Handbook, BAER FSH 2509.13 and the Burned Area Emergency Response Handbook, May 2004, available at: <http://fsweb.wo.fs.fed.us/directives/fsm/>

Community Protection/Community Assistance

There are no “Communities at Risk” (Federal Register Vol. 66, No. 3) within this FMU.

5. FMU: Big Timber-Absaroka

a. Area Description

There are 18,623 acres of public land, 34,100 acres managed by the State of Montana and 710,936 acres of private land. About half (8,400 acres) is classified as forestland, 38 percent (6,500 acres) is grasslands, and 12 percent (2,100 acres) is shrublands. Some parcels are in the foothills adjoining the Beartooth /Absaroka mountain ranges south and west of Big Timber and extend south to Beehive. The Gallatin and Custer National Forests border many of these tracts on the south.

b. Characteristics

The predominate vegetative type is Douglas-fir forest, fuel model 8, mixed with rough fescue, Idaho fescue, bluebunch and slender wheatgrass, mountain brome and big sagebrush, fuel models 1 and 5. Fuel loading ranges from .74 tons/acre to 3 tons/acre within this FMU lie portions of the Beartooth Absaroka Wilderness Area. Soils are generally silty 10-19" PZ. This area provides habitat for deer, elk, bear, grouse, raptors and songbirds. Fish habitat is affected in the Yellowstone, Stillwater, and Boulder rivers by runoff from these drainages. The area contains high value timberland and wildlife habitat, including elk winter range. The primary use of the area is for timber, firewood, recreation, and livestock grazing. Access is generally good, with the exception of occasional locked gates on private land. Portions of the area adjacent to the Absaroka/Beartooth wilderness contain decadent stands of Lodgepole pine. Other concerns include the potential effects on fisheries in the Yellowstone, Stillwater, and Boulder rivers. Special Status fish species habitat exists in Bad Canyon, and OHV use is restricted in Bad Canyon.

The Big Timber-Absaroka area is designated PSD Class II.

c. Fire History

The wildland fire workload is 1-3 fires yearly. Timber concentrations and fuels loads in combination with steep terrain make access and control difficult. Fire behavior can be extreme and stand replacement fires in lodgepole pine are common. There have been 14,329 acres burned by wildfire in the last 20 years. This area experiences high winds which can be extreme, creating extreme, erratic, fire behavior.

d. Fire Regime/Condition Class

Elk habitat and other wildlife concerns as well as political concerns mandate that portions of this FMU remain condition class II & III. In order to assist in meeting LUP objectives, decadal treatment acres for fire management activities within this FMZ have been established at 3000 acres.

BIG TIMBER ABSAROKA FMU					
PNVG	Historic Fire Regime	Condition Class	Federal Acres	Total FMU Acres	% of FMU
PGRA3	III	III	9,311	384,085	50
PPIN9	I	III	7,449	307,268	40
DFIR2	III	II	1,862	76,817	10
FMU Totals		II	18,623	768,170	100%

FRCC data are summarized below. The Standard Landscape Method was applied to characterize FRCC per direction contained in the *Interagency Fire Regime Condition Class Guidebook* (Hann et al., 2002).

e. Values at Risk

- **Cultural/ACEC:** The Big Timber unit contains a more limited subset of habitats and cultural site types. Typical prehistoric sites include Tepee rings, brush and log habitation structures, open campsites and resource procurement sites.
- **Range/Weeds:** Native vegetative cover on all sites within the FMU. High intensity wildfire may cause undesired, accelerated erosion and invasive species can establish on sites completely denuded of vegetative.
- **Lands and Realty:** Communications site on public lands authorized by right-of-way MTM-59031. This communications site provides service for Sweetgrass County, the Montana Highway Patrol, Montana Dept. of Transportation and the USFS. Site is located in T. 2 N., R. 15 E., sec 28, SE1/4NE1/4. Yellowstone River Ranch Subdivision located approximately 8 miles west of Columbus on the south side of the Yellowstone River. Subdivision consists of 230 lots at 20 acres each which surround 120 acres of public land.
- **Recreation:** The Beehive recreation area and adjacent Bad Canyon provide outstanding opportunities hiking, wildlife viewing, horseback riding and hunting.
- **Wildlife:** Wildlife species and their crucial or critical habitats. Examples of species are elk, mule deer, Yellowstone cutthroat trout, peregrine falcons, goshawks, sage grouse, and blue grouse. The condition and vigor of sagebrush must be maintained to provide forage and cover in designated crucial winter range areas and habitat for sagebrush obligate species such as sage grouse, Brewers sparrow and sage thrasher. Crucial habitats for Federally Threatened and/ or Endangered Species, and BLM Special Status Species require protection. This would include all migratory birds and non-game species. Bad Canyon Creek has been identified a Yellowstone cutthroat trout fishery in a conservation plan. (Available in the BIFO) Priority protection areas are all canyons with

riparian or water features for watershed and key habitat values. Timber stands with forest canopy cover greater than 70 percent will be maintained as thermal and hiding cover for big game and other species.

Constraints - The following guidelines are applicable to this FMU as established by the Fire/Fuels Management Plan Environmental Assessment/ Plan Amendment for Montana and the Dakotas (July 2003, p57-64), or by existing policy. Refer to Appendix F for full text of each constraint (Constraints beginning with “WF” are wildland fire constraints, “FM” are fuels management constraints).

Cultural and Paleontological Guidance - During fire suppression or fuels project planning, the FO archaeologist, paleontologist or cultural resource program lead would review the following guidelines from Appendix F and recommend or conduct those that are appropriate for the resources in the area:

Suppression

- **WF-C1, WF- C11 and WF-P1** for areas suspected to contain cultural or paleontologic resources sensitive to surface disturbance.
- **WF-C2** for areas known to contain petroglyphs and pictographs
- **WF-C3 and WF-P2** for placement of staging areas and fire camps
- **WF-10** if Native American remains are discovered at any time during the incident or rehabilitation

Range and Weeds

- **WF-W1** for use of BMPs to limit non-native species
- **WF-W2** for species to be used during re-vegetation of suitable habitat
- **WF-W3** for placement of base camps relative to known infestations of non-natives
- **WF-W4** for timelines on post-fire weed inventories

Gray Wolf

- **WF-G1 and FM-G1** for human disturbance in areas with gray wolf den or rendezvous sites.

Bald eagle

- **WF/FM-E1** for human disturbance in areas with bald eagle nests.
- **WF/FM-E2** for human disturbance in areas with bald eagle winter roosts.
- **WF/FM-E3** for helicopter, aircraft and retardant use in areas with bald eagle winter roosts and nests.
- **FM-E4** for prescribed fire activity in areas with bald eagle winter roosts and nests.

Canada Lynx

- **WF/FM-L1** for activities that could cause loss of suitable habitat for lynx.
- **WF/FM-L2** for salvage harvest in lynx habitat.
- **WF/FM-L3** for constructing temporary roads, fire breaks, machine lines etc. in lynx habitat
- **WF/FM-L4** for restricting livestock grazing following fire in lynx habitat

- **WF/FM-L5** for preservation of large woody debris during projects in lynx habitat
- **WF/FM-L6** for introducing fire into lynx habitat.
- **WF/FM-L7** for burn prescriptions in snowshoe hare habitat.

Grizzly Bear

Although BLM lands lie outside the Recovery Zone the following interim measures will be applied to suitable grizzly habitat adjacent to the Recovery Zone (east of the Forest Service boundary along the foothills of the Beartooth Mountains). These interim measures are for human and grizzly bear safety and habitat protection. The measures apply to fire related activities only. Upon delisting the “GRIZZLY BEAR Management Plan for Southwestern Montana Final Programmatic EIS,” 10/2002 guidelines will apply. (Appendix G)

Reporting to and coordination with SHPO (during and following the fire)

- **WF-C8, WF-C9 and WF-C11**
- **FM-P1** for areas known or suspected to contain fossils resources
- **FM-C2** for Native American consultation
- **FM-C3** if Native American remains are discovered at any time during projects

Fuels Management (during project design, development and implementation)

- **FM-C1** for inventory type

Fuels management

- **FM-W1** for use of BMPs to limit non-native species
- **FM-W2** for species to be used during re-vegetation of suitable habitat
- **FM-W3** for use of chemicals on projects
- **FM-W4** for pre-project weed inventories
- **FM-W5** for pre-treatment of infestations prior to implementation
- **WF-SP and FM-SP**

Aquatic Species

- **FM-A1** for interim buffers around ponds, lakes, and streams in forested areas that contain Special Status Fish species; Yellowstone Cutthroat trout.
- **FM-A2** for interim buffers around other fish bearing streams in forested areas
- **FM A3** for interim buffers around ponds, lakes and wetlands in forested areas
- **FM A4** for interim buffers for water bodies in non-forested rangeland ecosystems

Rehabilitation

- **WF-C4 and WF-C11** for pre-rehabilitation inventory
- **WF-C5 and WF-C6** for cultural resource representation on the rehab team
- **WF-C7** for monitoring of sensitive sites during rehab
- **WF-P3** for recovery of fossils

Visual Resource Management

Fire management decisions for areas lacking specific VRM classifications will rely on general guidance through other program decisions as well as project level visual contrast ratings. (Manual 8431)

Management actions during wildfire events, prescribed fire or mechanical treatments would be conducted in the manner necessary to maintain the existing visual character of the landscape. Minimum Impact Suppression Tactics MIST will be considered where possible Incident management and Rehab in VRM I and II areas: Bad Canyon is managed as a VRM Class II.

- **WF-V1** for use of heavy equipment and retardant in VRM I and II areas
- **WF-V2** for fire rehab of VRM I and II areas

Fuels management

- **FM-V1** for contrast ratings to be completed as part of project planning
- **FM-V2** for visual resource specialist involvement in project planning

f. Communities at Risk

Seven Federally-listed communities are contained within the boundaries of this FMU: Absarokee, Big Timber, Columbus, Nye, Mcleod, Redlodge, and Reedpoint. Additional urban interface is scattered throughout the area including Luther and Beehive, which are small unincorporated settlements within this FMU. Subdivisions are being platted and are developing, notably the Yellowstone River Ranch 5 miles west of Columbus, Montana. (See Map) Communities listed in the Federal Register Vol. 66, No. 3 as “Communities at Risk” (Available at: www.fireplan.gov/ and through the Miles City FO). Risk Assessments, County Fire Plans, Fire prevention Plans, and volunteer county assisted fuels reduction efforts are managed and coordinated through the Miles City FO- Mitigation and Education Program Manager.

Fire Management Objectives

See Goals, Standards, Objectives and Future Conditions that apply to all FMUs for additional objectives. The decadal treatment target for this FMU is 3,000 acres. In addition the following objectives are provided:

- Fires are suppressed at a minimum cost, considering fighter and public safety.
- Manage for a healthy mix of grass prairie with a diversity of warm and cool season perennial grass species with minor components of shrubs.
- Maintain native species where they currently exist and reduce the occurrence of non-native weeds
- Maintain sagebrush cover in designated sage grouse wintering/nesting areas. (Maps will be provided to fire personnel.)
- Comply with OHV use restrictions to protect designated resource values.

- Reduce potential for impacting National Register sites during fire suppression efforts by avoiding cultural site localities during fireline construction.
- Reduce the threat of catastrophic wildfire by the incremental reduction of diseased timber fuel loading.
- Develop fuels treatments which move the effected landscapes toward condition class 1.
- Prioritize needs for fuels treatments based on fuels inventory, wildland urban interface and resource values.

Fire Management Strategies

Suppression

As indicated by the B category designation, wildland fire is undesirable, specifically because of commercial timber, agricultural production, private and state land, adjoining wilderness and Forest Service lands. The appropriate management response to wildland fire in this area would be aggressive fire suppression. Prescribed fire and other fuels management strategies may be used to reduce hazardous fuels or to mitigate or avoid effects of wildland fire.

The appropriate management response is guided by the suppress targets listed by FIL. All fires occurring at FILs 1-3 will be suppressed at <100 acres 98 percent of the time. All fires occurring at FIL4-6 will be suppressed at <200 acres 95 percent of the time. Once the decadal burn target has been reached from either planned or unplanned ignitions, a review of objectives and strategies should take place to develop new suppression criteria on all wildland fires.

Wildland Fire Use - Currently there is no provision for wildland fire use in BiFO LUP.

Prescribed Fire - A number of treatments have been identified in this FMU. Many of these treatments have objectives which require the use of both prescribed fire and mechanical treatment methods.

- East Boulder Timber sale/fuels treatment/wildlife burn 640 acres
- Wolf Creek, fuels reduction Rx fire, 200 acres
- Deer Creek, re-entry 120 acres
- WUI Stillwater/Nye 80 acres
- Bad Canyon fuels treatment/ wildlife winter range burn -200 acres
- Packsaddle Butte / Black Butte: wildlife winter range burns -200 acres
- Treatment:
 - Mechanical 240 acres
 - Rx fire: 1100 acres
 - Prescribed fire: 1680 acres

Non-Fire fuels treatments - To date, 120 acres have been treated in the Deer Creek drainage to reduce encroachment, return fire to the land and improve wildlife habitat. Efforts are underway to identify and prioritize areas requiring treatment with emphasis on Communities at Risk including: Absarokee, Nye, Columbus, Fishtail, Greycliff, Reedpoint, Big Timber, Mcleod and Redlodge, and communities not listed in the Federal Register: Luther and Beehive. An additional 700 acres are under consideration for wildlife habitat improvement and hazardous fuels reduction.

6. FMU Twin Coulee

a. Area Description

Twin Coulee WSA consists of 6,879 acres of public land, 640 acres of lands managed by the State of Montana and 4,825 acres of private lands. It borders the south edge of the Snowy Mountains and adjoins the Lewis and Clark National Forest on the north. Private lands border the public lands on the east and south sides. Most of the private lands have been commercially logged and provide roads for access and fire control. Access into the WSA is limited to foot travel from the Red Hill Road.

b. Characteristics

The Twin Coulee FMU is characterized by upland forested habitats. Vegetation consists of ponderosa pine/Douglas-fir on the east side, Douglas-fir forest complex on the south and west (fuel model 8, fuel loads of 5.0 tons/acre), and open limber pine at lower elevations (fuel model 2 with fuel loads of 4.0 tons/acre). Denser stands of limber pine have the characteristics of fuel model 6, fuels loads of 7.0 tons/acre). Islands of lodge pole pine are intermingled with the Douglas-fir stands on the south side of the area and encompass large areas in the adjoining Forest Service lands (fuel model 10 with fuel loads of 8-10 tons/acre). Open parks are made up of Fescue, Colombia needlegrass, bearded wheatgrass, mountain brome, and many forbs (fuel models 1 and 5 with fuel loads of .74 to 3.0 tons/acre). Slopes are very steep and rocky with a south aspect. Soils are shallow silty in the 10-14 inch precipitation zone. Some areas are very rocky and subject to erosion. Heavy fuel loading occurs, except in areas that have burned recently. These areas are prone to pine beetle infestations. Historic burn characteristics show the area is susceptible to severe damage from wild fire.

Brush and log habitations may be encountered.

The Twin Coulee area is designated PSD Class II.

c. Fire History

Between 1978 and 2003, only three fires were reported by federal agencies to have started on public lands. Two of these fires combined burned 870 acres of Federal lands. The other burned fire escaped the WSA and burned about

3600 acres of private and Federal lands. High rates of spread were observed on this fire, which burned during the month of April.

All three fires occurred on forestland. Fire behavior can be extreme and stand replacement results.

d. Fire Regime/Condition Class

Approximately one half (3,782 acres) of the federal lands within this FMU have burned in the last 20 years. The remaining lands are in condition class I & II, placing the entire FMU in condition class I. It is desirable to have parts of this FMU remain in condition class II for elk and other wildlife habitat. In order to assist in meeting LUP objectives, decadal treatment acres for fire management activities within this FMZ have been established at 1,000 acres.

FRCC data are summarized below. The Standard Landscape Method was applied to characterize FRCC per direction contained in the *Interagency Fire Regime Condition Class Guidebook* (Hann et al., 2002).

TWIN COULEE FMU					
PNVG	Historic Fire Regime	Condition Class	% of Federal Acres	Total FMU Acres	% of FMU
SPFI2	III	II	6,879	12,728	100

e. Values at Risk

No special considerations or specific cultural resource locales have been identified. Fire management within these areas should conform to the general guidelines of section 2.5.1.1 and 2.5.3.1 of the Fire/Fuels Management Environmental Assessment Plan Amendment for Billings and the Dakotas (2003). Specific values identified are as follows:

- Protect native vegetative cover on all sites in the FMU from catastrophic wildfire.
- A single right-of-way authorization located along Red Hill Road, held by Mid-Rivers Telephone for a buried telephone line (MTM-71920).
- Private lands and cabins are also located within the FMU.
- Twin Coulee WSA supports a variety of recreation related opportunities that could be affected by fire or fire management. Opportunities that could be affected by fire would include opportunities for solitude in some of the roadless areas and displaced wildlife and it's affect on hunting and wildlife viewing.
- WSA, timber, and the associated wildlife values.

f. Constraints

The following guidelines are applicable to this FMU as established by the Fire/Fuels Management Plan Environmental Assessment/ Plan Amendment for Montana and the Dakotas (July 2003, p57-64), or by existing policy. Refer to Appendix F for full text of each constraint (Constraints beginning with “WF” are wildland fire constraints, “FM” are fuels management constraints).

Manage visual resources according to established guidelines for VRM classes in accordance with procedures outlined in the BLM Handbook 8410-1

Twin Coulee WSA is managed as a VRM Class I.

Cultural and Paleontological Guidance:

During fire suppression or fuels project planning, the FO archaeologist, paleontologist or cultural resource program lead would review the following guidelines from Appendix F and recommend or conduct those that are appropriate for the resources in the area:

Suppression

- **WF-C1, WF- C11 and WF-P1** for areas suspected to contain cultural or paleontologic resources sensitive to surface disturbance.
- **WF-C2** for areas known to contain petroglyphs and pictographs
- **WF-C3 and WF-P2** for placement of staging areas and fire camps
- **WF-10** if Native American remains are discovered at any time during the incident or rehabilitation
- **WF-C8, WF-C9, and WF-C11**

Range and Weeds

- **WF-W1** for use of BMPs to limit non-native species
- **WF-W2** for species to be used during re-vegetation of suitable habitat
- **WF-W3** for placement of base camps relative to known infestations of non-natives
- **WF-W4** for timelines on post-fire weed inventories
- **WF-V1** for use of heavy equipment and retardant in VRM I and II areas
- **WF-V2** for fire rehab of VRM I and II areas

Rehabilitation

- **WF-C4 and WF-C11** for pre-rehabilitation inventory
- **WF-C5 and WF-C6** for cultural resource representation on the rehab team
- **WF-C7** for monitoring of sensitive sites during rehab
- **WF-P3** for recovery of fossils

Fuels Management (during project design, development and implementation)

- **FM-C1** for inventory type
- **FM-P1** for areas known or suspected to contain fossils resources
- **FM-C2** for Native American consultation

- **FM-C3** if Native American remains are discovered at any time during projects
- **FM-W1** for use of BMPs to limit non-native species
- **FM-W2** for species to be used during re-vegetation of suitable habitat
- **FM-W3** for use of chemicals on projects
- **FM-W4** for pre-project weed inventories
- **FM-W5** for pre-treatment of infestations prior to implementation
- **FM-V1** for contrast ratings to be completed as part of project planning
- **FM-V2** for visual resource specialist involvement in project planning

Visual Resource Management - Management actions during wildfire events, prescribed fire or mechanical treatments would be conducted in the manner necessary to maintain the existing visual character of the landscape. Fire management decisions for areas lacking specific VRM classifications will rely on general guidance through other program decisions as well as project level visual contrast ratings. (Manual 8431)

Wilderness - Management actions during wildfire events, prescribed fire or mechanical treatments within Wilderness Study Areas will be conducted so as not to impair their suitability for preservation as wilderness as outlined in H-8550-1, Interim Management Policy for Lands Under Wilderness Review. All wildfire activities will be managed in the manner, which most appropriately protects natural values from irreversible or irretrievable impacts. Natural fire events will be minimized by localized treatments to remove hazardous fuels. A visual resource contrast rating will be completed for all project level planning to determine whether or not proposed activities meet VRM objectives. Mitigation measures will reduce visual contrasts and rehabilitation plans will address landscape modifications on a case by case basis.

To reduce the negative effects of wildfire events in the Twin Coulee FMU, minimum impact suppression tactics will be used.

Natural firebreaks and existing roads will be used whenever possible. Fire suppression impacts will be rehabilitated to restore visual and/or wilderness characteristics.

g. Communities at Risk

No communities exist within this FMU. A single cabin exists on private land adjacent to the WSA, with local ranch developments within 1–5 miles. (See Map)

Fire Management Objectives

Public lands will be managed to provide a mosaic of forage and cover types to accommodate wildlife species. The natural vegetation and landform characteristics would also be maintained to protect WSA characteristics. Timber values should be protected as much as possible, while maintaining habitat for wildlife. Fire management objectives are:

Fires are suppressed at a minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives.

- Maintain native species where they currently exist and manage non-native weeds
- Manage for diversified grasslands to provide wildlife forage, and nesting and rearing habitat
- Comply with OHV use restrictions to protect designated resource values.
- Benefits and values to be protected, consistent with resource objectives.
- Where interest exists, involve public and private holdings in fuels treatment projects to treat larger landscapes.
- Sagebrush age class and structure will be improved with vegetation treatments (either mechanical or prescribed fire) in small areas where single age class structures are present.
- Maintain or improve the condition and vigor of sagebrush to provide forage and cover in designated mule deer/ pronghorn crucial winter range areas. (Maps will be provided to fire personnel.)
- Maintain/improve age class diversity in sagebrush cover in sage grouse habitats.
- Limit and/or minimize erosion
- Plan for target forest and vegetation cover goals based on Vegetation cover analysis
- Use fire and other fuels management methods to reduce hazardous fuels while meeting other resource objectives. Mimic historical fire regimes and vegetation patterns.
- Reduce the threat of catastrophic wildfire by the incremental reduction of diseased timber fuel loading.

Fire Management Strategies

Suppression - As indicated by the B category designation, wildland fire is not desirable in this FMU. The appropriate management response to wildland fire within the Twin Coulee WSA would include the most effective methods of suppression that are least damaging to the wilderness values and other resources. These suppression efforts will also be in compliance with the WSA guidance and in a way that minimizes potential habitat destruction and erosion. Careful consideration of the potential benefits, values protected, and erosion potential will precede the use of heavy equipment. Prescribed fire and other fuels management strategies may be used to create fire breaks, reduce fuel loading, or to mitigate or avoid effects of wildland fire. Prescribed fire may also be used in the WSA but would avoid unnecessary impairment of the area's suitability for preservation as wilderness, as determined through specific assessment during project planning.

The appropriate management response to wildland fire would generally be aggressive fire suppression. Prescribed fire may be used in this FMU. The appropriate management response is guided by the suppress targets listed by FIL. All fires occurring at FILs 1-3 will be suppressed at <100acres 98

percent of the time. All fires occurring at FIL4-6 will be suppressed at <200 acres 95 percent of the time.

Wildland Fire Use - Currently there is no provision for wildland fire use in BiFO LUP.

Prescribed Fire - Prescribed fire objective are to:

- Use fire and others fuels management methods to reduce hazardous fuels while meeting other resource objectives.
- Reduce the threat of catastrophic wildfire by the incremental reduction of diseased timber fuel loading.
- Develop data which characterizes the normal fire regime and condition class.
- Develop fuels treatment strategies which move toward condition class 1.

Non-fire fuels Treatments - No known treatments have occurred in this FMU. Treatment options will be considered for the entire FMU to return a natural fire regime to the land and reduce the likely hood of stand replacement fires. Data is needed to determine fire regime and condition class (FRCC).

Post Fire Rehabilitation - Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health, and safety, and to help communities protect infrastructure.

Based on the potential effects of wild land fires to overall water quality and riparian systems, suppression, rehabilitation and fuels treatments will be carried out according to the Emergency Stabilization and Rehabilitation Guide (ESR) DM 620-3.

Management actions during wildfire events, prescribed fire or mechanical treatments will be conducted in the manner necessary to maintain the existing visual character of the landscape, reduce the potential for erosion, invasion of noxious weeds and reduce the potential for the establishment of new roads and trails.

Community Protection/Community Assistance - There are no “Communities at Risk” in this FMU.

7. FMU: Pompeys Pillar

a. Area Description

Pompey’s Pillar National Monument is located 30 miles east of Billings on the south side of the Yellowstone River. Within the Pompeys Pillar boundaries are the Pompeys Pillar National Landmark (approximately 8.23 acres), and a National Monument (approximately 51 acres). The combined acreage of the Landmark, the Monument, and the surrounding public lands, including the island in the Yellowstone River, is approximately 431 acres. The entire area is part of the Pompeys Pillar ACEC. This area includes a visitor center,

associated outbuildings, and irrigated cropland. There is a 14 acre private in holding, owned by Robert Taylor, located within the eastern Pillar boundary along the south channel of the Yellowstone River.

b. Characteristics

Pompey's Pillar National Monument is an isolated block of sandstone on the south side of the river bank of the Yellowstone River. The pillar landform rises abruptly more than 100 feet above the surrounding level plain. The materials forming the pillar, as well as the rugged cliffs on the north side of the river, probably correspond to the Hell Creek formation. The topography is generally rolling hills. Soils vary from silty in the 10-14 inch precipitation zone to dense clay-clayey-saline upland complex in the 5-9 inch precipitation zone. The Pillar itself is designated a National Historical Landmark because of the significance of William Clark's signature and the association of the Pillar with the Lewis and Clark Expedition. The peak period for visitors occurs during mid to late summer when temperatures are warm and the potential for fire danger is high. Climate is typical of semi-arid environment. Summers are warm with temperatures sometimes exceeding 100 degrees, July high temperatures average in the low 80's, while January highs are in the teens. Annual precipitation averages 10-14 inches with 60 percent of the growing season moisture coming during May and June. Hail, severe thunder storms and blizzards often occur.

Most of the land south and east of the pillar has been cultivated for the past 50-100 years. Some of this area near the pillar will be planted with native vegetation. The land north and east of the pillar has not been cultivated and is presently covered with dense cottonwood riparian woodland. The area is characterized by fuel loads that range from .74 to 6.0 ton/acre. Fuel models 1 and 5 fit the majority of this area, and with fuel types 6.

Geological feature at Pompeys Pillar is a VRM Class II. The rest of the site is classified as a VRM III.

Pompey's Pillar is designated PSD Class II.

c. Fire History

Since 1991, when the BLM acquired Pompeys Pillar, there have been three wildland fires on the property burning approximately 57 acres.

d. Fire Regime/Condition Class

This FMU has had human inhabitation and use for centuries. Fuels consist of approximately 59 acres of grass/shrubs and broad leaf stands of cottonwood typical of river bottom land and 372 acres of tilled farmland. Some of the farmland is burned each year to control weeds, increase wildlife forage and clear irrigation ditches. The decadal treatment acres for fire management

activities within this FMZ, including the yearly agricultural burning, have been established at 1000 acres.

POMPEYS PILLAR FMU					
PNVG	Historic Fire Regime	Condition Class	Federal Acres	Total FMU Acres	% of FMU
RIPA	III	II	59	431	14
Farmland			372		
FMU Totals			431	431	100%

FRCC data are summarized below. The Standard Landscape Method was applied to characterize FRCC per direction contained in the *Interagency Fire Regime Condition Class Guidebook* (Hann et al., 2002).

e. Values at Risk

Pompey’s Pillar represents an area of special consideration. The unit contains a National Landmark and National Monument. The entire unit is part of the Pompey’s Pillar ACEC) based on cultural values. Pictographs and petroglyphs, both historic and prehistoric, are the outstanding features of the monument, with the 1806 signature of William Clark as the centerpiece. Away from the pillar, visitor facilities, interpretive exhibits and historic structures and features require protection. (Maps will be provided to fire personnel)

- Protect native vegetative cover on all sites in the FMU from catastrophic wildfire. Accelerated erosion will occur and invasive species can establish on sites completely denuded of vegetative cover due to catastrophic wildfire.
- Riparian habitat, bald eagles and habitat, hairy woodpecker, spiny soft-shell turtles, Wood house’s toad, hognose snake, and pale milk snake.
- The presence of a national landmark, a national monument, an ACEC, and other archeological and historic resources.
- Structures that need fire protection including an interpretative center and farm structures
- The public with an estimated 130,000 visitors per year

f. Constraints

In the 8.23 acres of the National Historic Landmark initial fire suppression actions would be restricted to the application of water. No hand tools which create ground disturbance or mechanized equipment would be allowed within this area. Heavy equipment will not be allowed in riparian areas.

The following guidelines are applicable to this FMU as established by the Fire/Fuels Management Plan Environmental Assessment/ Plan Amendment for Montana and the Dakotas (July 2003, p57-64), or by existing policy. Refer to Appendix F for full text of each constraint (Constraints beginning with “WF” are wildland fire constraints, “FM” are fuels management constraints).

Cultural and Paleontological Guidance - During fire suppression or fuels project planning, the FO archaeologist, paleontologist or cultural resource program lead would review the following guidelines from Appendix F and recommend or conduct those that are appropriate for the resources in the area:

Suppression

WF-C1, WF-C11 and WF-P1 for areas suspected to contain cultural or paleontologic resources sensitive to surface disturbance.

- **WF-C2** for areas known to contain petroglyphs and pictographs
- **WF-C3 and WF-P2** for placement of staging areas and fire camps
- **WF-10** if Native American remains are discovered at any time during the incident or rehabilitation
- **WF-C4 and WF-C11** for pre-rehabilitation inventory
- **WF-C5 and WF-C6** for cultural resource representation on the rehab team
- **WF-C7** for monitoring of sensitive sites during rehab
- **WF-P3** for recovery of fossils

Range and Weeds

- **WF-W1** for use of BMPs to limit non-native species
- **WF-W2** for species to be used during re-vegetation of suitable habitat
- **WF-W3** for placement of base camps relative to known infestations of non-natives
- **WF-W4** for timelines on post-fire weed inventories

Threatened and Endangered Species/Fish and Wildlife

- **WF/FM-E1** for human disturbance in areas with bald eagle nests.
- **WF/FM-E2** for human disturbance in areas with bald eagle winter roosts.
- **WF/FM-E3** for helicopter, aircraft and retardant use in areas with bald eagle winter roosts and nests.
- **WF-TE** provides guidance for threatened and endangered species that are not currently known to occur on BiFO-administered lands (prairie dog towns with documented occurrence and pallid sturgeon). If information related to the occurrence of these species changes, the protection measures from the statewide plan amendment should be incorporated into this FMP.
- **WF-V1** for use of heavy equipment and retardant in VRM I and II areas
- **WF-V2** for fire rehab of VRM I and II areas

Reporting to and coordination with SHPO (during and following the fire)

- **WF-C8, WF-C9, and WF-C11**

Fuels Management (during project design, development and implementation)

- **FM-C1** for inventory type

- **FM-P1** for areas known or suspected to contain fossils resources
- **FM-C2** for Native American consultation
- **FM-C3** if Native American remains are discovered at any time during projects
- **FM-W1** for use of BMPs to limit non-native species
- **FM-W2** for species to be used during re-vegetation of suitable habitat
- **FM-W3** for use of chemicals on projects
- **FM-W4** for pre-project weed inventories
- **FM-W5** for pre-treatment of infestations prior to implementation

Threatened and Endangered Species/Fish and Wildlife

- **FM-TE** provides guidance for threatened and endangered species that are not currently known to occur on BiFO-administered lands (prairie dog towns with documented occurrence and pallid sturgeon). If information related to the occurrence of these species changes, the protection measures from the statewide plan amendment should be incorporated into this FMP.
- **FM-A1** for interim buffers around ponds, lakes, and streams in forested areas that contain Special Status fish species
- **FM-A2** for interim buffers around other fish bearing streams in forested areas
- **FM A3** for interim buffers around ponds, lakes and wetlands in forested areas
- **FM A4** for interim buffers for water bodies in non-forested rangeland ecosystems
- **FM-E4** for prescribed fire activity in areas with bald eagle winter roosts and nests.

Fuels management

- **FM-V1** for contrast ratings to be completed as part of project planning
- **FM-V2** for visual resource specialist involvement in project planning

Management actions during wildfire events, prescribed fire or mechanical treatments would be conducted in the manner necessary to maintain the existing visual character of the landscape.

g. Communities at Risk

No listed communities at risk exist within this FMU. Construction of a 5,700 square foot interpretative center east of the Pillar along the edge of the cottonwood trees has begun. The existing visitor center east of the Pillar will eventually be removed. Numerous farm developments occur in the Yellowstone River Valley from ¼ - 5 miles from this FMU. (See Map)

Fire Management Objectives

- Firefighter and public safety is the first priority. Fires will be suppressed at a minimal cost, considering public safety and the values to be protected, consistent with the resource objectives for the area.
- Use fire and others fuels management methods to reduce hazardous fuels while meeting other resource objectives. Plan fuels treatments including

mechanical treatment and controlled burns to reduce fuel loads to contribute to the long term preservation of cultural sites.

- Preserve the rock art and inscription panels on Pompeys Pillar NHL.
- Protect cultural sites.
- Limit the use of OHV to designated roads and trails.
- Retain the existing character of the landscape in the NHL.
- The VRM class III management objective of the remainder of the Pompeys Pillar ACEC, outside of the NHL, is to partially retain the existing character of the landscape (the level of change to the characteristic landscape should be moderate
- Maintain the existing canopy cover of the cottonwood bottoms.
- Prevent and/or minimize flood damage and protect municipal and domestic water supplies.
- Maintain native species where they currently exist and manage non-native weeds
- Manage for diversified grasslands to provide wildlife forage, and nesting and rearing habitat.
- Treat areas with heavy fuel loads to protect cultural sites and NHL structures.

Fire Management Strategies

As indicated by the B category designation, wildland fire is not desired due to the National Historic Landmark status, the National Monument status, the ACEC values, large amount of visitor use, adjacent private land, and structures.

Suppression - The appropriate management response to wildland fire would generally be aggressive fire suppression. The appropriate management response is guided by the suppress targets listed by FIL. All fires occurring at FILs 1-3 will be suppressed at <10 acres 98 percent of the time. All fires occurring at FILs 4-6 will be suppressed at <50 acres 95 percent of the time. Once the decadal burn target has been reached from either planned or unplanned ignitions, a review of objectives and strategies should take place to develop new suppression criteria on all wildland fires

Wildland Fire Use - Wildland fire use is not approved in any of the land use plans for this area, so it is not considered as an option in this FMU.

Prescribed Fire - Fire and mechanical fuels treatment may be used to improve wildlife habitat, treat weeds and reduce hazardous fuels. Fuels treatments can be used to promote water flow in agricultural areas and to increase food production for wildlife in areas outside the NHL. Prescribed fire will be used annually on 91 acres to reduce hazardous fuels, increase food production for wildlife and improve irrigation for cropland.

Non-fire fuels Treatments - No non-fire fuels treatments are planned at the time but will be considered as needed by a site-specific plan.

IV. Fire Management Components

A. Wildland Fire Suppression

1. Fire History

Between 1984 and 2003 there were 149 fires that occurred in the area included in this FMP. Approximately 60 percent of the fires were lightning caused and 40 percent were human caused. These fires generally occur between the months of May and August. Human caused fires are usually associated with main travel corridors.

Multiple fires days consisting of 2-5 fires or more per day have occurred 14 times.

The number of fires varies from year to year and is dependent on the amount of moisture associated with lightning-producing thunderstorms. The size of fires fluctuates from year to year depending on the availability of the primary fire carrier. Annual grasses and brush are the primary fire carriers in the lower to middle elevations, and their growth is dependent upon precipitation received during the late winter and spring months. At the higher elevations primary fire carriers are pine needles and litter.

While the majority of this FO experiences primarily Class A, B and C, fires, the area has a history of large fire activity. A total of 10 Classes E & F fires ranging from 300 to 54,000 acres have occurred.

Mobilization of a Type II Incident Management Team has occurred in each of the following FMPs in the last 5 years: Twin Coulee FMP, BLM Pryor Mtn, FS Pryor Mtn., and Big Timber/Absaroka.

FMP FIRES BY CLASS SIZE	1984-2003	FMP FIRES BY CAUSE	1984-2003
SIZE CLASS	NUMBER OF FIRES	CAUSE	NUMBER OF FIRES
A <.25 acres	35	HUMAN	89
B .25-10 acres	58	NATURAL	60
C 10-100 acres	32		
D 100-300 acres	11		
E 300- 1000 acres	4		
F 1000-5000 acres	6		
G > 5000 acres	3		
TOTAL	149	TOTAL	149

Fire behavior - The FO supports a variety of fuel types, including grass, sage, sage/grass, juniper, limber pine, alpine fir, brush/grass, ponderosa pine, and ponderosa pine/mixed-conifer.

The following table represents best available information on fuels complexes within the FO and expected fire behavior during the fire season.

Ponderosa Pine (Timber/Litter and Grass Fuel Group)			
Fuel Model	Rate of Spread, ch/hr	Flame Lengths, ft.	Fire Characteristics
9	7.5	2.6	Surface fires with frequent crownfire, especially at higher wind
Juniper (Shrub group)			
4	75	19	Only under high wind conditions
6	32	6	Only closed-canopy conditions under high wind speeds of over 20 mph at 20 feet.
Grasslands/Sagebrush (Grass Fuel Group)			
1	0 – 78	0 – 4	Fires burn out quickly
2	0 – 35	0 – 6	Continuous and rapid spread under high wind conditions
(Douglas fir/Alpine Fir) Timber Group			
8	1.6	1.0	Slow-burning ground fires are characteristic with and occasional jackpot. High winds pose control problems
10	7.9	4.8	Burn in surface and down fuels. Crowning and spotting occur

2. Suppression/Preparedness Actions

The FO conforms to the national direction in that all wildland fires receive an Appropriate Management Response. This response based on preplanned criteria may vary from an aggressive response (where improvements or significant resource values are present) to a response that uses existing or developed barriers in the suppression of the fire. This response is in conformance with land use plan direction and is based on ecological, social and legal consequences of the fire. Preplanned suppression strategies are implemented in a manner that insures that identified constraints are followed and that impacts to the ecosystem are minimized.

3. Fire Prevention, Community Assistance, and Education

Education and prevention is an active part of the BIFO fire management program, managed through the Education and Mitigations specialist in the Miles City FO. Details of the prevention program may be found in the Miles City FO FMP (Section IV. Part 2.), available at the Miles City FO and BiFO and the Montana State Office.

Community risk assessments and mitigation activities are conducted in partnership with the local communities each year and coordinated through the Mitigation and Education Specialist in the East Zone Miles City FO. Project funding and budget for Mitigation and Education projects in the BiFO are managed through the Mitigation –Education office in the Miles City FO.

a. Prevention

Details of the prevention program may be found in the Wildland Fire Prevention Plan. Training, prevention posters, and part-time funding for one individual are in the current budget request. Community risks assessments and mitigation activities are conducted in partnership with the local communities each year.

Goals:

- Protect life and property
- Promote fire prevention education and awareness
- Assist communities with risk assessment and planning

b. Special Orders and Closures

Restrictions and closures are implemented as needed. Close cooperation with State, local (counties) and other Federal agencies, are made through regular meetings and conference calls, and in conjunction with the Miles City FO Education and Mitigations Specialist.

c. Industrial Operations and Fire Precautions

The FO has a wildland fire prevention plan. Specific operational procedures are outlined in this plan. (Miles City/Billings Fire Prevention Plan)

4. Fire Training Activities

Training and fitness requirements for all personal involved in fire/suppression support can be found in the Interagency Standards for Fire and Aviation Management. Attendance at the refresher training along with successful competition on the appropriate level of work capacity testing is a prerequisite for the issuance of a red card. The FO Manager will ensure that all employees meet mandatory training and fitness requirements and made are available locally, regionally and nationally as the situation demands.

5. Detection

Detection of fires within the BiFO is generally dependent upon reports from aircraft patrols, FO employees and the public. Post-high lightning activity patrols in high probability areas within the FO are routinely conducted on the ground and through fire detection flights at dry times of the year. Interagency cooperation through the zones provides aerial detection coverage by coordinating flights for all the agencies.

6. Fire Weather and Fire Danger

The FO has four permanent Remote Automatic Weather Stations (RAWS) that are used for NFDRS. The office also has one Portable Micro-RAWS that is used for prescribed fire projects. The FO Fire Danger Operating plan can be found in the Billings Zone Dispatch.

7. Aviation Management

The Fire Management Officer (FMO) has been designated as the Unit Aviation Officer. All flights involving FO employees need to be coordinated through the FMO. Local vendors are available and are ordered through the dispatch. For specific operational protocols see the Miles City/Billings Zone Aviation Management Plan (Available in the Billings Zone Dispatch)

8. Initial Attack

All fires within the BiFO will be managed with suppression actions consistent with preplanned dispatch protocols in conformance with resource management objectives identified in this plan. Tactics and strategies will be based on the current and predicted weather and fire behavior. In areas where hazards have been identified less aggressive attack strategies may be used to insure firefighter safety. Use the following information for determining initial attack priorities.

The highest priority FMUs within the fire planning unit for initial attack are ranked as follows:

- Pompeys Pillar
- Musselshell
- Big Timber/ Absaroka
- Sage/grassland
- Pryor Mtns (Fs & BLM)
- Twin Coulee

9. Extended Attack and Large Fire Suppression

Extended attack positions that are available within the BiFO such as Incident Commander Type III (ICT3), Task Force Leader (TFLD), Strike Team Leader Crews (STCR) and other positions are reported to the dispatch weekly. These resources can be ordered as needed by the initial attack Incident Commander. Direction for extended attack operations can be found in the Interagency Standards for Fire and Fire Aviation Operations

10. Other Fire Suppression Considerations

Close coordination and cooperation with the Beartooth Ranger District are required on fires which occur in the FS Pryor Mtn. FMU. Coordination can include use of USFS resources and resource advisors.

B. Wildland Fire Use

No areas within the BiFO are designated for Wildland Fire Use. Wildland fire use strategies cannot be considered until the appropriate level(s) of NEPA and interagency cooperation can be developed.

C. Prescribed Fire

1. Planning and Documentation

The BIFO prescribed fire program is undertaken on an interagency basis to treat natural fuel accumulations to meet resource management objectives, standards and guidelines as outlined in the RMP. Treatments have traditionally included wildlife habitat enhancement, site preparation for artificial and natural regeneration, range habitat improvement and hazardous fuels reduction. Planning and site preparation occurs fall through June with some activities during the summer months. Planning and preparation include site survey/inventory, NEPA, applications for local permits, and mechanical site preparation work.

Five wildlife, hazardous fuels reduction projects have been completed since 1997, (400 acres). Five WUI fuels breaks have been completed (92 total acres) and 300 acres have been mechanically treated to reduce hazardous fuels in and around communities and subdivisions

Documentation is accomplished in NFPORS, MIS, and RAMS.

Project level analysis through the NEPA process and other state and federal regulatory compliance processes document the purpose and need for treatment and identifies the goals and objectives that the prescribed fire/mechanical treatment is intended to realize. The direction for FMUs identified in the RMP and this FMP, permit the use of management ignited fire on BLM lands in the Billings Grasslands, Musselshell, Big Timber-Absaroka, Twin Coulee WSA, Pompeys Pillar, and Pryor Mountains FMUs of this FMP. The development of prescribed treatment proposals is typically accomplished one to three years in

advance of planned treatments. Field reconnaissance and interdisciplinary analysis are completed one to two years in advance of project implementation.

In an effort to be more cost effective, project analysis may be the precursor to multi-year treatments on the scale of several thousand acres. Similarly, treatments are planned using a block concept on some sub-units, which results in additional flexibility in project implementation taking advantage of favorable sites and seasonal windows for treatment.

Prescribed burns will be coordinated with key agency staff and public, focusing on special use permittees, right-of-way holders, recreationists and public or communities that could be potentially affected by a prescribed fire. Agency public affairs staff will prepare pre/post project news releases. Additional coordination will be to inform staff members. All burn plans conform to the direction contained in the Prescribed Fire Handbook 9214. The BIFO will retain complete documentation and records for each fuels treatment in accordance with the manual:

- NEPA documents
- Maps and photos pre and post treatment
- Agreements
- Contracts with project copies
- Monitoring and evaluations
- Projected and actual cost summaries
- GIS Data
- Completion and/or progress reports
- Prescribed Fire Plan and attachments

Prescribed fire go/no-go checklist, briefing checklist, test fire documentation, smoke management permit(s), weather and fire behavior observations and spot weather forecast(s)

Within the BiFO, the following projects are listed in priority order:

- Horsethief Fuels Reduction
- Four Dances/South Hills
- Ah Nei Fuels Reduction
- Wolf Creek Fuels Reduction
- Acton Fuels Reduction

Number of projects implemented through local contractors

Two local contractors were used as sub-contractors for the completion of 300 acres of mechanical treatment in the Horsethief.

Two local contractors bought and removed wood products at Horsethief.

Total acres treated in Condition Class 2 moved to Condition Class 1

275 acres have been treated in the past 5 years.

Total number of acres treated in Condition Class 3 moved to Condition Class 2 or 1
405 acres have been treated in the past 2 years

Qualified Personnel

Staffing for the fuels program consists of a Fuels Specialist Fuels Program Manager. Additional resources are obtained through BiFO Fire Program and outside resources including adjacent cooperating agencies. Only qualified personnel will participate in the implementation of prescribed fire and fuels implementation projects. A list of qualified personal is available in the dispatch office, Billings Zone Fire Dispatch.

Monitoring

The BIFO develops out-year program planning and budgeting information for prescribed fire and mechanical treatments in accordance with Resource Management Plan. Projects are identified and developed in the Risk Assessment Mitigation Strategy (RAMS). Project accomplishments are tracked and reported in the NFPORS data base.

The following are monitoring objectives:

- Measure overall effectiveness of treatments against treatment objectives
- Document level of success utilizing scientific methods
- Document cost effectiveness of treatments
- Develop a fuel treatment map displaying past accomplishments and proposed treatments.
- All specific prescribed fire plans include project maps. A map showing proposed and completed Treatment(s) is attached. (Appendix B) Management ignitions/mechanical treatments may be planned to reduce fuel continuity around the periphery of public lands. These treatments would be designed to reduce fuel accumulations and the potential for fire spread to adjacent urban interface and private lands.

2. Air Quality and Smoke Management

a. Pertinent air quality issues

BLM Manual Sections 9211.31 (E), Fire Planning, and 9214.33 Prescribed Fire Management require compliance with individual state and local smoke management programs that specify the condition under which burning may be conducted.

b. Smoke prevention or mitigation

- Location of Class I air sheds and clean air corridors.
- No Class I airsheds exist within the BiFO management boundaries, however, Yellowstone National Park, and the Northern Cheyenne Indian Reservation lie adjacent to the FO Boundaries.
- Description of pre-identified smoke sensitive areas.

Smoke sensitive areas include the Interstate Highway system which dissects the FO and other State highways which traverse the FPU. Consideration is

given on a project basis to Cities and developments that may be impacted by prescribed fire activities.

- Air quality is generally good and dispersment is good. Billings, Laurel, and Lame Deer are designated as non-attainment areas and care and cooperation are required to meet air quality needs
- Local and regional smoke management restrictions and procedures are followed for all prescribed fire projects. Smoke management conforms to the guidelines and with the permission of the Montana/Idaho State Airshed Group and local burn permits where required.
- Local airshed coordination is accomplished through the Billings Zone Dispatch center.

D. Non-Fire Fuels Treatments

The BIFO develops out-year program planning and budgeting information for treatments in accordance with the Resource Management Plan. Projects are usually identified in the Risk Assessment Mitigation Strategy (RAMS). The development of treatment proposals is typically accomplished one to three years in advance of planned treatments. Field reconnaissance and interdisciplinary analysis are completed one to two years in advance of project implementation. All specific non-fire fuels treatment project plans include pre/post project criteria. For specific action items refer to each individual project plan.

Project level reporting requirements have been established and include submissions in Rangeland Improvement Project System (RIPS), Annual Work Plan (AWP), Management Information System (MIS), and National Fire Plan Operations Reporting System (NFPORS).

The BiFO is in the implementation stages of the Horsethief fuels reduction project, a 10,348 acre WUI fuels reduction project near the city of Roundup. This project includes a combination of mechanical and prescribed fire treatments in 3,075 acres of forested lands to reduce the likely hood of catastrophic fire, protect homes, and restore a more natural fire regime to the land. These lands are generally in condition class 3, with an approximate fire regime of 25 years. Completion of the 3,075 acres is planned within the next three to five years.

- Number of acres treated by non-fire methods.
405 acres mechanical treatment
- Number of acres treated mechanically with by-products utilized.
333 acres treated with by-products used
- Number of projects implemented through local contractors.
One Indefinite Delivery/Indefinite Quantity (IDIQ) contract has been used. This contract used local sub-contractors and local contractors removed and used the wood products for saw timber and firewood. Wood was also made available for individual fire wood gathering.
- A total of 275 acres treated in Condition Class 2 moved to Condition Class 1.

- A total of 447 acres treated in Condition Class 3 moved to Condition Class 2 or 1.

E. Emergency Stabilization and Rehabilitation

The BiFO stabilization and rehabilitation program is undertaken to prevent further and unacceptable resource damage from soil erosion due to the effects of wildland fire. For information see the BLM Supplemental Emergency Stabilization and Rehabilitation Guidance. This supplement provides specific BLM guidance and is tiered to the 2002 Department of Interior (DOI) ESR Handbook (<http://fire.r9.fws.gov/ifcc/esr/handbook/>) relative to planning and implementing ESR projects on public lands administered by the BLM. Treatment activities must conform to the BLM Supplemental Emergency Stabilization and Rehabilitation Guidance, and RMP. SDFO treatments have traditionally included aerial seeding, ground seeding, construction of protective fences, and construction of water erosion abatement structures.

Project specific analysis through the NEPA process documents the purpose and need for treatment and identifies the goals and objectives that each treatment is to realize. Emergency rehabilitation needs will be established in a wildland fire rehabilitation plan. Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health and safety, and to help communities protect infrastructure. The SDFO develops program planning and budgeting information for rehabilitation treatments in accordance with the Resource Area Plan.

Documentation requirements have been established by the resource and fire management staff and are identified in the SDFO in RIPS, AWP, MIS, and NFPORS.

Short-term monitoring requirements include evaluation of the application methodology immediately upon completion of application. Post-treatment monitoring may include vegetative transects or establishing permanent photo points depending on the specific project objectives.

F. Community Protection/Community Assistance

Twenty six communities are listed in the Federal Register Vol. 66, No. 3 as “Communities at Risk” (Available at: www.wfireplan.gov/). Risk Assessments, County Fire Plans, Fire prevention Plans, and volunteer county assisted fuels reduction efforts are managed and coordinated through the Miles City FO- Mitigation and Education Program Manager. Communities at Risk are listed in the Federal Register and in the FMU in which they exist. (“Communities at Risk” Federal Register VOL 66, No 3, p. 766-767)

Communities at Risk with completed and current FMPs or risk assessments:

- Roundup
- Musselshell

WUI communities at risk with fire prevention programs in place and being implemented:

- Roundup
- Musselshell

WUI communities at risk that initiated volunteer and community funded efforts to reduce hazardous fuels resulting in the removal of the community from the at-risk list:

- No communities have been removed from the community at risk list.

General Program Overview - All seven counties are participating in the Community Assistance and Rural Fire Assistance programs. All counties have received money for planning and Rural Fire Departments have received money for equipment, training and prevention. In addition Rural Fire Departments in Musselshell, Yellowstone, Carbon, and Stillwater counties have received additional PPE, equipment and training through the Billings Zone initial attack organization. Federal fire crews have provided and/or attended training with the County Rural fire departments 10-15 times in the past 5 years.

V. Organization and Budget

The Billings zone fire staffing, equipment and funding levels were established in the preferred alternative of the most recent National Fire Management Analysis System (NFMAS) analysis (June 2002) .

Two fire stations, Billings/Bridger, each staffed with an engine, are maintained within the BiFO. Engines crews consist of an engine foreman, senior firefighter, and 3 crewmembers. Both stations and engine modules are supervised by a Fire Operations Supervisor, based in the Billings. Complete staffing details are contained in the Miles City/Billings FO Operations Plan. Budget summaries for the BIFO, for all fire related sub-activities, personnel and equipment counts and locations, are in conformance with the State FMP Guidance Formula. Specific details may be found within the Interagency Initial Attack Assessment (IIAA, IIA) Database, including fire occurrence/workload and staffing. (Available from the Billings Zone Dispatch) Annual fire season is determined to be May through October. The staffing levels outlined in Appendix E are at the NYR (Normal Year) level in IIAA and NYR is based on the resource objectives, fire occurrence and difficulty of fire control in the Billings RMP.

Workforce and Equipment Identification - The Billings zone fire staffing, equipment and funding levels were established in the preferred alternative of the most recent National Fire Management Analysis System (NFMAS) analysis (June 2002).

Resource	Current Staffing*	Desired Staffing*	Normal Activation	Cost
FMO		1	Yearly	\$
AFMO	0	0	Yearly	\$
FOS	1	1	Yearly	\$
Engine Foreman	2	2	Feb-Nov	\$
Aircraft/Tanker Base Manager	1	1	Yearly	\$
Senior Firefighter	2	2	Mar-Oct	\$
Type 4-Engine (3)	NA		May-Oct	\$
Type 6-Engine (3)	2	2	May-Oct	\$
Fuels Specialist	1	1	Yearly	\$
Fuels Technician	0	1	Yearly	\$
Dispatch Center Manager	1	1	Yearly	\$
Dispatch Asst Center Manager	1	1	Yearly	\$
Dispatch Aircraft	1	1	May-Oct	\$
Dispatch initial attack	2	1	May-Oct	\$
Intelligence Coordinator	1	1		
Fuels Crew	NA		June-Sept	\$
Risk/Mitigation/ Education Specialist	0	0	Yearly	\$
Total				\$1,441,573

A. Assistance Agreements and Intra/Interagency Agreements

The *Interagency Agreement for Fire Management* states that “among the Federal Wildland Fire Management Agencies, the Interagency Agreement for Fire Management provides the framework and authority for cooperative arrangements for initial attack efforts by fire suppression forces that can arrive at a fire first, regardless of agency ownership.” A Federal agency performing the initial attack will notify the agency that is responsible for the land as soon as ownership is determined, and will continue suppression pursuant to the procedures outlined in the Federal National Interagency Mobilization Guide. Additional provisions for fire suppression efforts are provided for emergency or a declared major disaster through United States Code. Assistance Agreements, which includes Cooperative Agreements and Grants with state, local and non-profit entities provides for mutual or reciprocal fire protection assistance.

Original copies of U.S. Code applicable to wildland fire are provided in *A Reference Guide to Principal Wildland Fire Laws for the Bureau of Land Management*. (DRAFT Oct 2003) The Guide can be obtained from the BLM Office of Community Protections and Assistance National Interagency Fire Center. Copies of the Federal Interagency Agreement for Fire Management are kept at the BLM-Office of Fire and Aviation’s Procurement Office. Copies of Assistance Agreements are kept at the Montana BLM State Office. Copies of the Emergency Equipment Rental Agreements are available from Billings Zone Dispatch.

Cooperative fire management agreements exist between the BLM and the following agencies:

- National Weather Service - Interagency Fire Management (2000), interagency agreement for Weather Service assistance during prescribed fires and regular fire season (See Billings Zone Dispatch for copies).
- Custer National Forest, Beartooth FMP (2004) (See Billings Zone Dispatch)
- County Reciprocal Fire Suppression agreements (2004) (Appendix D).

B. Equipment Rental Agreements

Available in the Billings Zone Dispatch

C. Contract Suppression and Prescribed Fire Resources

Available in the Billings Zone Dispatch

VI. Monitoring and Evaluation

The BiFO-FMP is a working reference for wildland fire management and hazardous fuels treatments within the BIFO. It will be reviewed annually and revised as needed to ensure that the strategic guidance provided in the plan is assisting the BIFO in meeting its resource management and fire management goals and objectives in the Billings RMP. Revisions, additions, and adjustments that are compliant with the RMP may be incorporated into the FMP. Any major changes may require amending the RMP. The review will also ensure that the fire program is being implemented in a safe, cost effective manner and as directed in this FMP. As national wildland fire performance measures are issued, monitoring and evaluation protocols will be developed to meet those requirements and follow Department and Bureau guidelines.

- Project level plans will be evaluated according to the guidelines found in the 9214.
- Planning will be completed in RAMS.
- Project evaluations will be utilized to evaluate the effectiveness of the goals and objectives of this FMP are being achieved.
- Evaluation information will be used to update the FMP as necessary.
- Specific projects will include planning for monitoring to insure objectives are met. Monitoring documentation will be kept in the specific project file, maintained in the BiFO office.
- All accomplishments will be reported in MIS, NFPORS and BPS as required.

Glossary of Terms

Aspect - The direction a slope faces.

Big Game - Large mammals, such as deer, elk, and antelope that are hunted for sport.

Communities at Risk - Communities which have been identified in the Federal Register as being at risk for damage caused by wildland fire.

Condition Class - Condition classes are a function of the degree of departure from historical fire regimes resulting in alterations of key ecosystem components such as species composition, structural stage, stand age and canopy closure.

1. **Condition Class 1**- Attributes: Fire regimes are within or near an historical range. The risk of losing key ecosystem components is low. Fire frequencies have departed from historical frequencies by no more than one return interval. Vegetation attributes (species composition and structure) are intact and functioning within an historical range.
2. **Condition Class 2**- Attributes: Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components has increased to moderate. Fire frequencies have departed (either increased or decreased) from historical frequencies by more than one return interval. This results in moderate changes to one or more of the following: fire size, frequency, intensity, severity, or landscape. Vegetation attributes have been moderately altered from their historical range.
3. **Condition Class 3**- Attributes: Fire Regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have departed (either increased or decreased) from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, frequency, intensity, severity, or landscape. Vegetation attributes have been significantly altered from their historical range.

Cultural Resource - The remains of sites, structures, or objects used by people in the past; this can be historical or pre-historic.

Endangered Species - A plant or animal that is in danger of extinction throughout all or a significant portion of its range. Endangered species are identified by the Secretary of the Interior in accordance with the Endangered Species Act of 1973.

Fire Intensity Level (FIL) - A term used in the NFMAS fire planning computer program to describe fire behavior. It is based on the calculated flame length: FIL 1 = 0-2 feet; FIL 2 = 2-4 feet; FIL 3 = 4-6 feet; FIL 4 = 6-8 feet; FIL 5 = 8-12 feet; and FIL 6 is greater the 12 feet.

Fire Management - Includes fire suppression, fire use and prescribed fire.

Fire Management Unit (FMU) - Any management area definable by objectives, management constraints, topographic features, access, values to be protected, political boundaries, fuel types, major fire regime groups that set it apart from the management characteristics of an adjacent FMU.

Fire Management Plan (FMP) - Guidance document for all fire related activities.

Fire Program Analysis - The new fire analysis software program that will become available in October 2004. The first module will analyze initial attack resources at the Fire Planning Unit level.

Fire Regime - The characteristics of fire in a given ecosystem, such as the frequency, predictability, intensity, and seasonality of fire.

Fire Use - The management of naturally ignited wildland fire to accomplish specific pre-stated resource management objectives in predefined geographic areas outlined in approved FMPs.

Fuels Management - The treatment of fuels that would interfere with effective fire management or control.

Fuels Treatment - Activities which rearrange or dispose of accumulations of fuels to lessen fire hazards.

National Environmental Policy Act (NEPA) - Congress passed NEPA in 1969 to encourage productive and enjoyable harmony between people and their environment. One of the major tents of NEPA is its emphasis on public disclosure of possible environmental effects of any major action on public lands.

National Fire Plan - A national plan of action that directs the USDA Forest Service and the Departments of the Interior to prepare for wildland fires and reduce their impacts on people and resources. The National Fire Plan is based on the five key points of firefighting, rehabilitation, and restoration, hazardous fuel reduction, community assistance, and accountability.

Noxious Weed - According to the Federal Noxious Weed Act (PL 93-629), a weed that causes disease or has other adverse defects on man or his environment and therefore is detrimental to the agriculture and commerce of the United States and to the public health. Identified by designation in Montana.

Off Highway Vehicle (OHV) - Vehicle travel off designated roadways and or trails.

Prescription - Management practices to accomplish specific land and resource management objectives.

Prescribed Fire - Fire intentionally set in wildland fuels under prescribe conditions and circumstances.

Public Land - Land for which title and administration rests with the Bureau of Land Management.

Resource Management Plan (RMP) - A planning document for and administrative unit managed by the Bureau of Land Management that provides general guidance and direction for land management activities within that administrative unit.

Riparian Ecosystem - The ecosystems around or next to water areas that support unique vegetation and animal communities as a result of the influence of water.

Sensitive Species - Species: Those species designated by a State Director, usually in cooperation with the State agency responsible for managing the species and State Natural heritage programs, as sensitive. They are species that: (1) could become endangered in or extirpated from a State, or within a significant portion of its distribution; (2) are under status review by the FWS and NMFS; (3) are undergoing significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution; (4) are undergoing significant current or predicted downward trends in population or density such that federal listed, proposed, candidate, or State listed status may become necessary.; (5) typically have small and widely dispersed populations; (6) inhabit ecological refugia or other specialized or unique habitats; or (7) are State listed but which may be better conserved through application of BLM sensitive species status.

Stand Replacement - When a stand has been totally modified by some disturbance (fire, insects, disease, logging), and needs to start, or be started over.

Suppression - Any act taken to slow, stop, or extinguish a fire. Examples of suppression activities include fireline construction, backfiring, and application of ware or chemical fire retardants.

Threatened Species - Those plant or animal species likely to become endangered throughout all or a specific portion their range within the foreseeable future as designated by the U.S. Fish and Wildlife Service under the Endangered Species Act of 1973.

Special Status Species - A group that includes five classes of plants and animals:

- A. Federally listed Threatened and Endangered Species and Critical Habitats;
- B. Federally Proposed Species and Proposed Critical Habitats;
- C. Candidate Species;
- D. State Listed Species and E BLM Sensitive Species.

Visual Resource Management (VRM) -

1. Class I Areas -Including all Wilderness and WSAs unless specifically exempted in an RMP) – To preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
2. VRM Class II Areas - Retaining the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color and texture found in the predominant natural features of the characteristic landscape.
3. VRM Class III Areas – The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
4. VRM Class IV Areas – To provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance and repeating the basic elements.

Wildland Urban Interface (WUI) - The line, area, or zone where structures and other human developments meet or intermingle with undeveloped wildland or vegetative fuels.

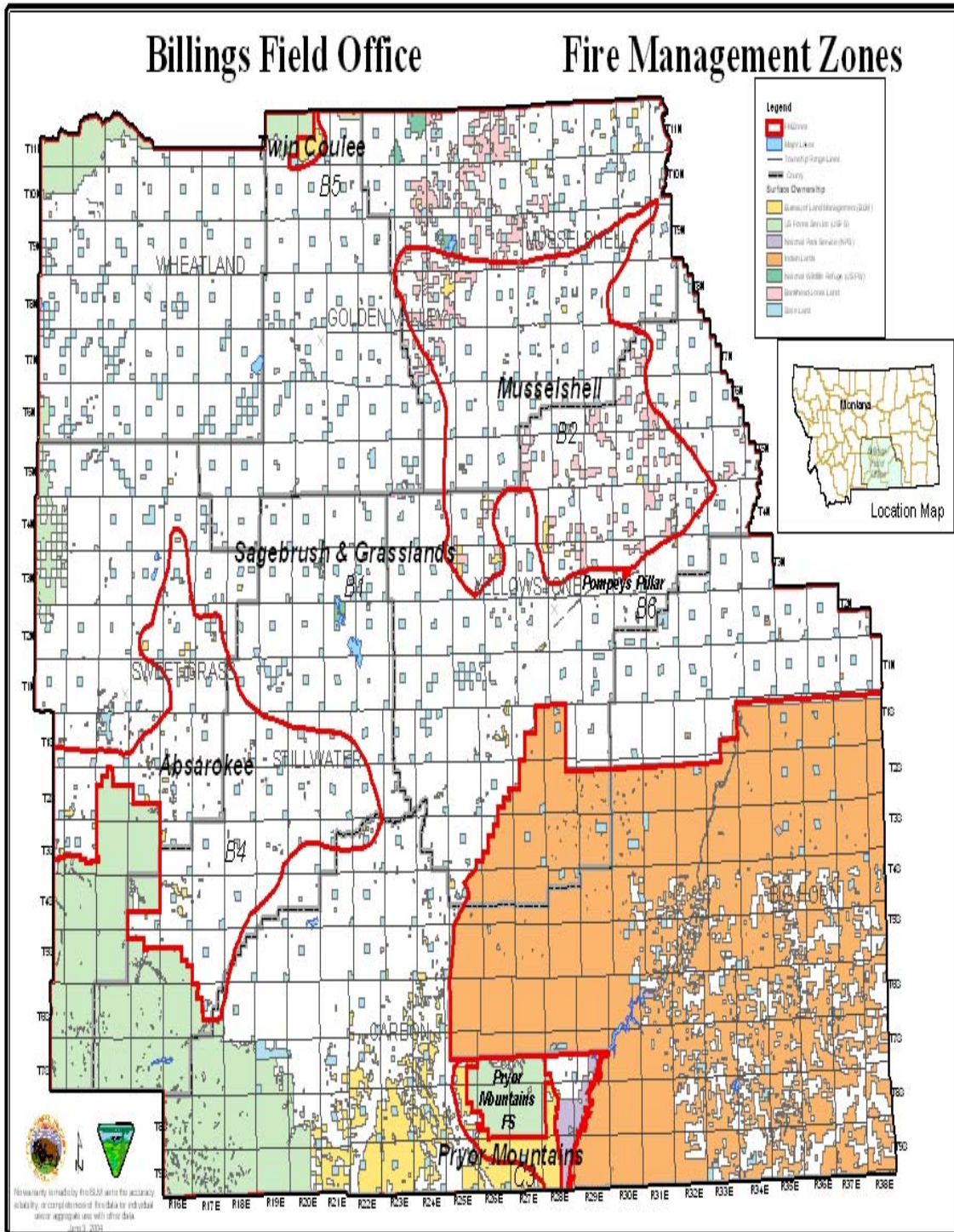
Wildland Fire - Any wildland fire that is not a prescribed fire.

Acronyms

ACEC - Area of Critical Environmental Concern
AMR - Appropriate management response
AWP - Annual work plan
BIA - Bureau of Indian Affairs
BiFO - Billings Field Office
BLM - Bureau of Land Management
BPS – Budget Planning System
DBH - Diameter breast height
DFIR2 – Douglas-fir Interior Fire Regime. (Reference Condition from Interagency FRCC Handbookl)
DSHB1 – Salt Desert Shrubland. (Reference Condition from Interagency FRCC Handbookl)
DM - Departmental manual
EIS - Environmental impact statement
FIL - Fireline intensity level
FMP - Fire Management Plan
FMU - Fire Management Unit
FRCC - Fire regime and condition class
FS Pryor Unit – Management unit of federal lands under US Forest Service management. Fire protection is provided by the Bureau of Land Management.
GIS - Geospatial Information System
IDIQ - Indefinite delivery indefinite quantity contract
IDP - Individual development plan
JUST1 - Juniper Steppe-infrequent, (Reference Condition from Interagency FRCC Handbookl)
LUP - Land Use Plan
MCFO - Miles City Field Office
MIS - Management Information System
NEPA - National Environmental Policy Act
NFPORS - National Fire Plan O Reporting System
NYR – Normal Year as it applies to the fire occurrence in a normal year.
OHV - Off-Highway vehicle
PGRA2 - Northern plains grasslands with trees. (Reference Condition from Interagency FRCC Handbookl)
PGRA3 - Northern Plains Grasslands with shrubs. (Reference Condition from Interagency FRCC Handbookl)
PMWHR - Pryor Mountain Wild Horse Range
PNVG - Potential Natural Vegetation Group. (Reference Condition from Interagency FRCC Handbookl)
PPIN9 - Ponderosa Pine (Black Hills). (Reference Condition from Interagency FRCC Handbookl)
PZ - Precipitation zone
RAMS - Risk Analysis and Management System

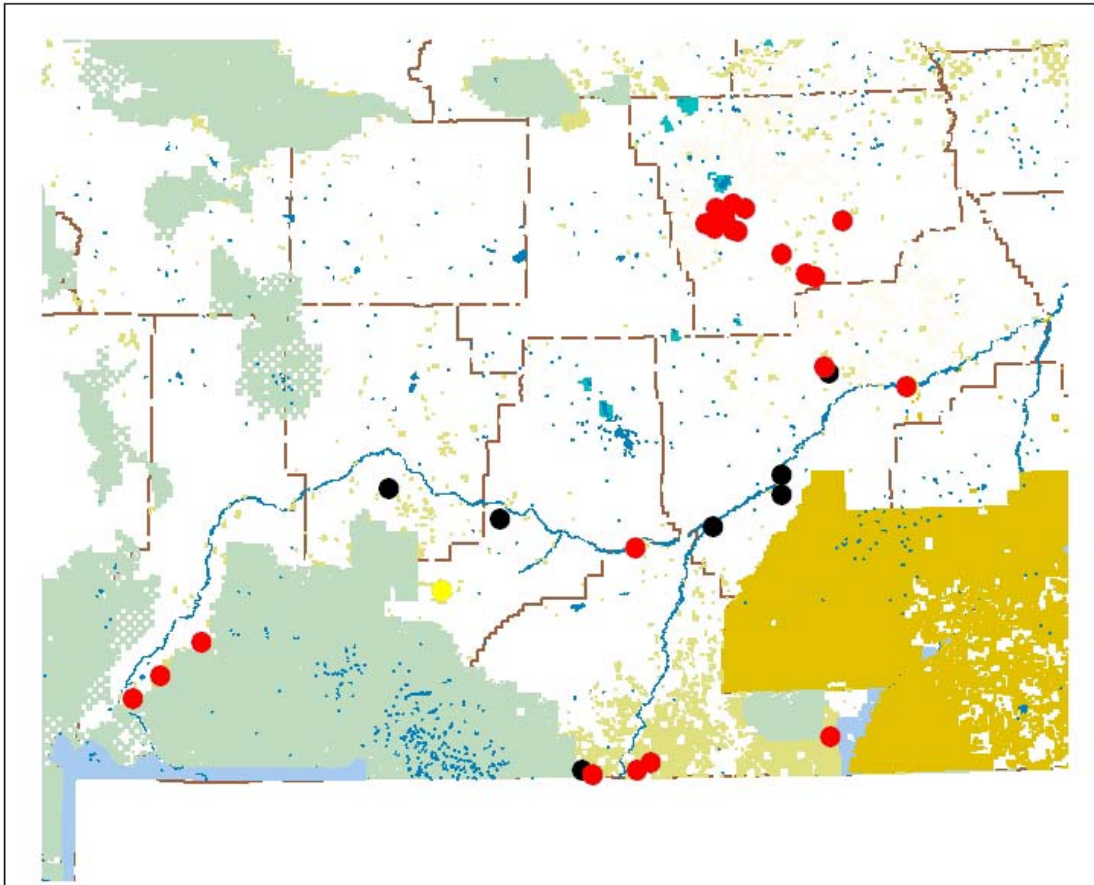
RIPA – Riparian (Reference Condition from Interagency FRCC Handbookl)
RIPS - Range Improvement Project System
RMP - Resource Management Plan
ROD - Record of Decision
SAGE2 - Sagebrush-other (e.g., Silver Sagebrush spp.), with trees. (Reference Condition from Interagency FRCC Handbookl)
SHPO - State Historic Preservation Office
SPFI2 – Interior West Upper Subalpine Forest. (Reference Condition from Interagency FRCC Handbookl)
SRMA - Special Recreation Management Area
USFS – United States Forest Service
USFWS – United States Fish and Wildlife Service
VRM - Visual Resource Management
WSA - Wilderness Study Area
WUI - Wildland Urban Interface

Appendix A: Fire Planning Unit / Fire Management Units

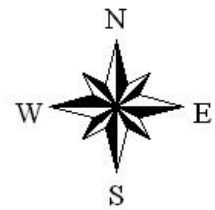


Appendix B: Fuels Treatments, Complete and Proposed

Fuels Treatment s



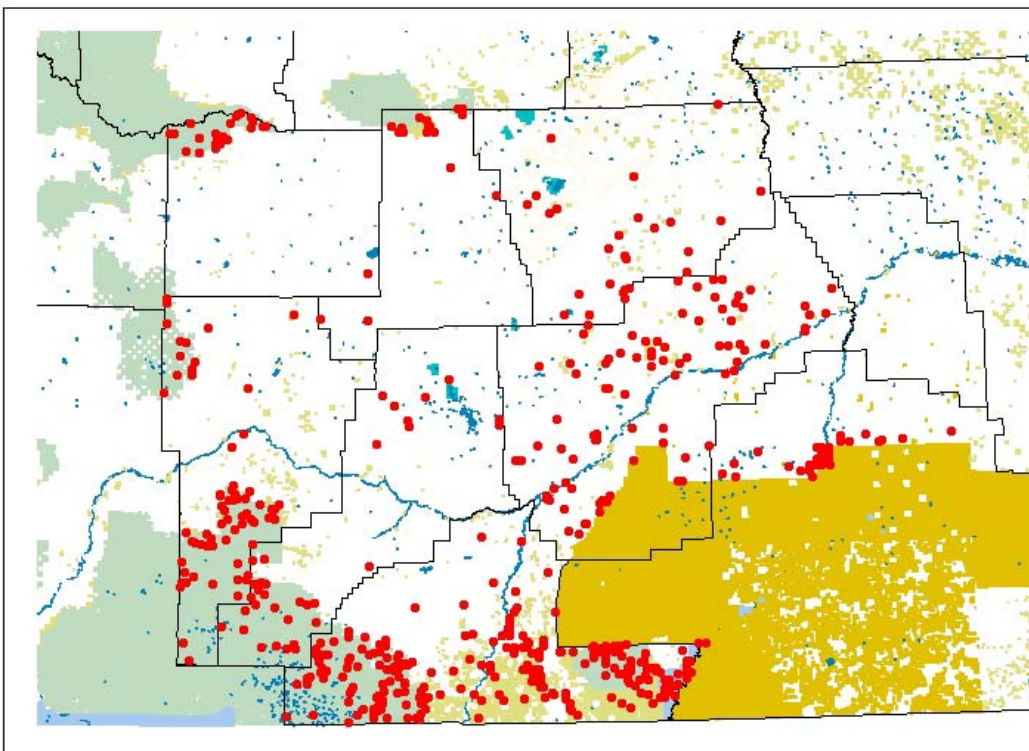
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- Fuels treatments complete.shp
- Own100.shp
 - Agri Rsch Station
 - BLM
 - FS
 - Natl Parks
 - Indian Lands
 - Military
 - NWR
 - LU
 - State
 - Water
- County Boundaries
- State Boundary



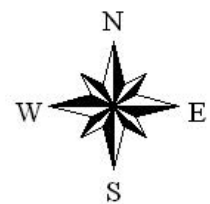
40 0 40 80 Miles

Appendix C: Federal Fire History

Federal Fire History Billings Zone 1982-2003



- C3_fire_history_clip.shp
- B5_fire_history.shp
- B2_fire_history.shp
- B1_fire_clip.shp
- Bdcountiesclip.shp
- Own100.shp
- Agri Rsch Station
- BLM
- FS
- Natl Parks
- Indian Lands
- Military
- NWR
- LU
- State
- Water



**Appendix D: Carbon and Musselshell County Reciprocal Fire Protection
Agreements**

Miles City Field Office

Reciprocal Fire Protection Agreement

Between XXXXXX County

and

the **Bureau Of Land Management,**

Miles City Field Office,

Billings Fire Zone

PURPOSE:

To provide operational and financial guidelines for the Miles City Field Office, Bureau of Land Management and the Musselshell County Fire districts, including Volunteer Fire Departments. These guidelines will apply to fire suppression operations/cooperation IE mutual aid on lands protected in Musselshell and adjoining Counties.

OBJECTIVES:

To set forth agreement on methods and responsibilities of each agency during wildfire incidents in the respective response areas.

AUTHORITY:

Reciprocal Fire Protection Act: 42 U.S.C 1856

Federal Grant and Cooperative Agreement Act: 31 U.S.C. 6301-6307

REFERENCE:

BLM Manual Section 9212, Fire Protection

Code of Federal Regulations 31 & 42

LIABILITIES/WAIVERS:

Each party waives all claims against every other party for compensation for any loss, damage, personal injury, or death occurring as a consequence of the performance of this agreement.

PROCEDURES:

- A. The Bureau Of Land Management (BLM) will provide without cost, and upon request, engine(s) with crew(s) to assist in the suppression of wildland fire on private lands in Musselshell County, through the first 12 hours after the request is made.
 1. Mutual aid requests will be made by the county Fire Warden or representative, through the Billings Fire Operations, Miles City Fire Dispatch Center, or DNRC.

- B. The Musselshell County Rural and Volunteer Fire Departments (Musselshell County Cooperators) will attack fires on public lands within their respective fire districts, without cost to BLM for the first 12 hours after a fire is reported.
- C. BLM and or Musselshell County Cooperators, when in mutual aid status, will remain available to respond to incidents within their area of responsibility as needed. Local standards apply for personnel and equipment while in Mutual Aid status.
- E. Mutual aid available through BLM, will include engines and personnel, not to include aircraft, air delivered retardant, or heavy equipment, unless specifically ordered by the Miles City Field Office Fire Management Officer (FMO).
- F. Mutual aid available through Musselshell County cooperators will include engines, personnel, and or heavy equipment and or personnel.
- G. BLM may request Musselshell Cooperator crews and equipment as needed past the first 12 hours.
 - a. Requests will be made through the local Fire Warden or DNRC
 - b. When requested past the initial hours, All contracted personnel and equipment must meet the NWCG standards for fire qualifications and fitness levels.
 - c. Personnel must be pack tested, currency trained, and red carded through DNRC.
 - d. Billing and payment to contracted units will be accomplished through existing agreements with DNRC.
- H. Command and/or the Officers of the agency in Charge will designate one common radio frequency to be used during an incident.
 - a. It is understood that the cooperating parties agree to the use of their assigned radio frequencies between parties.
 - b. Assigned frequencies will only be used when engaged in common fire suppression activities or other emergency incidents.

ADMINISTRATION:

- A. Conflicts between the participants concerning procedures under this agreement, which cannot be resolved at the level of operations, will be referred to successively higher levels, as necessary, for resolution.
- B. This agreement will be reviewed every 3 years to determine accuracy, need and effectiveness.
- C. This agreement may be renegotiated or cancelled at any time at the request of either party and following at least a 30 day notice to the other participants.
- D. Any participant may propose changes to this agreement. Changes will be added as an amendment and become effective after signature by all participants.

- E. This agreement will be in effect for 3 years and will expire at the end of this period unless cancelled, renewed or extended.

This agreement shall become effective on the last date of signing by the Musselshell County Commission Chairperson and the Miles City Field Office Manager.

We the undersigned, agree to the actions and responsibilities outlined in this agreement.

Appendix E: Billings Bridger Staffing Guide

STAFFING GUIDE for Billings

FUEL 8C SLOPE CLASS 2 ELEV 3649 HERB P BRUSH D CLIMATE 2 GREENUP 10,
APR

ITEM #	STAFFING CLASS -----> POSITION AND ACTION ERC CLASS ----->	I LOW 1-6	II MOD 7-17	III HIGH 18-22	IV V. HIGH 23-26	V EXTRM 27-32
REGION <u>One</u> FOREST _____ DIS _____ TRICT <u>Miles City</u>		ACTIVITY (Check One) <input checked="" type="checkbox"/> PREVENTION <input checked="" type="checkbox"/> DETECTION <input checked="" type="checkbox"/> ATTACK		LEGEND X - ACTION WITHOUT QUALIFICATIONS V - VISIBILITY LESS THAN 10 MILES R-1 - ABNORMAL MAN-CAUSED R-2 - PREDICTED LIGHTNING R-3 - SUSPECTED SLEEPERS R-4 - FOLLOWING LIGHTNING		
ACTIVITY: ***ATTACK*** (STRENGTH OF FORCE PERIOD: 5/15/00 TO 9/15/00) NOTE: "FIRE WEATHER WATCH" & "RED FLAG WARNING" SAME AS STAFFING CLASS V						
A-1	3 IA firemen & Duty Officer on normal work schedule with 2 hour check in.			X		
A-2	3 IA firemen & Duty Officer on 7 day coverage with constant radio contact.			R-2, 3	X	X
A-3	3 IA firemen and dispatcher, extended evening coverage				R-2, 3	X
A-4	FO personnel - 2 hour check in			R-2, 3	X	
A-5	FO personnel - continuous radio contact			R-3	R-2, 3	X
A-6	Alert local fire cooperators (State, County, VFD)				R-2, 3	X
A-7	Preposition 2 additional engines, preposition smokejumpers					R-2, 3
ACTIVITY: ***DETECTION*** (STRENGTH OF FORCE PERIOD: 5/15/00 TO 9/15/00) NOTE: "FIRE WEATHER WATCH" AND "RED FLAG WARNING" SAME AS STAFFING CLASS V						
D-1	Request air patrol after lighting storm		R-3	R-3, 4	X	X
D-2	Engine crew available at FO or with radio contact, alert Bridger VFD			X	R-2, 3	X
D-3	Alert local fire cooperators (USFS, Crow Agency, County, State)			R-3	R-2, 3	X
ACTIVITY: ***PREVENTION*** (YEAR ROUND) NOTE: "FIRE WEATHER WATCH" & "RED FLAG WARNING" SAME AS STAFFING CLASS V						
P-1	Implement Prevention Plan			X		
P-2	Increase patrols in closures areas established (Regional Forester and BLM orders)			R-3	R-2, 3, 4	X
P-3	Restrict burning permits to short term - under state proposal				X	
P-4	Stop issuing burning permits and shut down all burning operations - under state approval					X
P-5	Restrict campfires to developed sites				X	
P-6	No open campfires anywhere					X
P-7	Implement area closures if officially ordered					X

REGION <u>One</u> FOREST _____ DIS TRICT <u>Miles City</u>		ACTIVITY (Check One) <input checked="" type="checkbox"/> PREVENTION <input checked="" type="checkbox"/> DETECTION <input checked="" type="checkbox"/> ATTACK	LEGEND X - ACTION WITHOUT QUALIFICATIONS V - VISIBILITY LESS THAN 10 MILES R-1 - ABNORMAL MAN-CAUSED R-2 - PREDICTED LIGHTNING R-3 - SUSPECTED SLEEPERS R-4 - FOLLOWING LIGHTNING				
ITEM #	STAFFING CLASS -----> POSITION AND ACTION ERC CLASS ----->	I LOW 1-6	II MOD 7-17	III HIGH 18-22	IV V. HIGH 23-26	V EXTRM 27-32	
ACTIVITY: ***ATTACK*** (OUTSIDE STRENGTH OF FORCE PERIOD: 9/16/00 TO 5/15/01)							
A-1	Position 1 Type VI engine at Billings with FO personnel	X	X	X	X	X	
A-2	Preposition 1 additional Type 6 engine with crew and dispatcher. Alert qualified FO personnel and be in radio contact with Miles City Dispatch - 2 hour check in			R-3, 4	R-2, 3, 4	X	
A-3	Alert local fire cooperators (Crow Agency, USFS, VFD, state)			R-4	R-2, 3, 4	X	
A-4	Preposition smokejumpers					R-2, 3, 4	
ACTIVITY: ***DETECTION*** (OUTSIDE STRENGTH OF FORCE PERIOD 9/16/96 TO 5/15/97)							
D-1	Request air patrol from Miles City Dispatch			X	R-3, 4	R-3, 4	
D-2	Alert local fire cooperators			R-4	R-2, 3, 4	R-2, 3, 4	
D-3	Daily air patrol					R-2, 3, 4	

Appendix F: Management Constraints

Guideline #	Resource to be protected	Guideline
WF-C1	Cultural	Fire suppression tactics would limit surface disturbance to protect cultural resource values in designated cultural Areas of Critical Environmental Concern (ACEC), archeological districts, and other areas known or suspected to contain cultural resources, including historic structures and features. Use of earth moving/tillage equipment should be avoided for wildland fire suppression in areas with special designations to protect cultural resources and values, archeological districts, and other areas known to possess cultural resources. The use of heavy equipment and off-road vehicles should be limited to existing roads and trails within these areas during rehabilitation.
WF-C2	Cultural	The aerial application of fire retardant would be restricted over areas that contain petroglyphs and pictographs
WF-C3	Cultural	Fire camps and fire staging areas should be placed outside and sufficiently distant from known or identified cultural resources. Use of off-road motorized vehicles outside of fire camp and staging areas should be avoided to prevent inadvertent impacts to cultural resources.
WF-C4	Cultural	An intensive cultural resource inventory (Class III) as described in BLM Manual 8110 should be completed on areas disturbed by suppression activities, e.g., fire lines, fire camp areas, and staging areas before starting rehabilitation. Cultural resources discovered in or near disturbed areas should be protected from further damage during rehabilitation. Where cultural resources have been disturbed by suppression activities stabilization work may be implemented. This may entail a careful return of the berm over the site, seeding, or covering the site with protective mesh and culturally sterile material. These emergency actions should be considered on a case-by-case basis at the discretion of the archaeologist assigned to the fire. Consultation with the SHPO would be done in accordance with existing agreements or 36 CFR 800.
WF-C5	Cultural	A BLM resource advisor and, if feasible, an archaeologist, would be on site during suppression and rehabilitation activities to give guidance and ensure compliance with the guidelines and decisions established to protect cultural resource values. Guidelines should include prohibitions against the collection of artifactual materials from archaeological and historical resources.
WF-C6	Cultural	The archaeologist assigned to the fire would work with the rehabilitation team to ensure that cultural resources, including historic structures and features, are considered during fire suppression restoration actions. Site treatment plans would be prepared for historic properties that have been damaged by fire suppression and require more detailed stabilization efforts. These treatment plans would protect the site from secondary effects of the fire and fire suppression activities.
WF-C7	Cultural	Monitoring of sensitive site areas would be conducted when fire suppression rehabilitation plans are within close proximity to historic properties, or could have an indirect effect on an existing resource.
WF-C8	Cultural	If stabilization/protective measures were employed for cultural resources a report summarizing those actions should be submitted to an appropriate SHPO. The report should include a description of the fire impacts, fire suppression and rehabilitation, and salvage activities. It should also include the number and types of sites affected and stabilized.
WF-C9	Cultural	In accordance with the existing agreements or 36 CFR 800, the SHPO would be notified of a fire emergency and the suppression efforts associated with the emergency. Adjustments to these procedures may be made in response to comments from consulting parties; e.g. the SHPO, either programmatically through existing agreements or on a case-by-case basis where no agreement exists.
WF-10 (and FM-C3)	Cultural	If Native American human remains are discovered on public lands during fire suppression, rehabilitation, or fuels reduction activities, the BLM will follow procedures identified in the Native American Graves Protection and Repatriation Act (NAGPRA) and 43 CFR part 10. If BLM fire suppression or reclamation activities extend onto private or state land, and burials are discovered, the provisions of the appropriate state burial law will be followed.
WF-11	Cultural	The protective measures that guide the placement of dozer lines and other surface disturbing fire-related activities will be followed unless the authorized officer determines that due to adverse fire behavior, implementation of a particular measure is not feasible and prudent. In those cases, the measure may be waived or modified to address crucial safety issues, i.e., imminent threats to life and/or property. The SHPO will be notified if such measures are waived or modified in accordance with existing agreements or 36 CFR 800. Also, unless critical safety issues prevent a cultural resource inventory from being conducted, the provisions regarding post-fire cultural resource inventory cannot be waived or modified. If inventory is waived or modified by the authorized officer the SHPO will be consulted consistent with existing agreements or 36 CFR 800.

Guideline #	Resource to be protected	Guideline
WF-P1	Cultural	Surface disturbance should be limited within designated ACECs and formations known to contain significant fossil resources to protect paleontological values. In these areas with designated paleontological resources, the use of heavy equipment and off-road vehicles would be limited to existing roads and trails during rehabilitation.
WF-P2	Paleontological	Fire camps and fire staging areas should be placed outside and sufficiently distant from known or identified fossil localities. Use of motorized vehicles outside of fire camp and staging areas in known fossil producing formations should be avoided to prevent inadvertent impacts to fossil resources.
WF-P3	Paleontological	Significant fossils that are exposed by suppression activities or would be damaged by rehabilitation work should be recovered by a qualified Paleontologist.
FM-C1	Cultural	If a class III inventory is used instead of the sample inventory described in IM No. MT 99-032, no additional consultation with SHPO would be required.
FM-C2	Cultural	Prior to implementing fire projects, the BLM will do an appropriate level of Native American consultation according to the guidance in BLM Manual 8160 and Handbook H-8160-1 to identify potential religious or cultural concerns.
FM-C3	Cultural	See WF-10 above
FM-P1		Where known fossil resources are suspected but unknown and where the area cannot be avoided the following measures would be employed: 1. Conduct an inventory to identify the presence or absence of fossil resources employing a qualified paleontologist, 2. in areas where fossil resources are suspected or have been identified avoid using surface disturbing motorized vehicles, heavy equipment, or hand tools, and 3. advise fire personnel and others to refrain from collecting fossils on public lands.
WF-E1 FM-E1	Soils, plants	Use of heavy equipment is restricted to the drier areas in order to reduce impacts to sensitive soils and plants and to minimize soil erosion
WF-W1	Range, weeds	Best Management Practices should be applied to protect the area from invasive plant species
WF-W2	Range, weeds	Non-native species should not be used in re-vegetation of suitable habitat
WF-W3	Range, weeds	Potential base camp locations and other potential suppression activity facilities should be inventoried for the presence of weed infestations and should be located away from weed infestations
WF-W4	Range, weeds	Post fire weed inventories should be conducted one month after the fire is officially controlled.
FM-W1	Range, weeds	Same as WF-W1 above
FM-W2	Range, weeds	Same as WF-W2 above
FM-W3	Range, weeds	Label directions, BLM Manual 9011, and H9011-1 Chemical Pest Control Guidance will guide the use of chemicals on individual projects
FM-W4	Range, weeds	Complete inventories of the proposed project area should be completed in the early stages of the planning process
FM-W5	Range, weeds	Chemical treatment of known infestation should be planned and implemented one year prior to ignition operations
WF-V1	VRM Class I and II	The use of heavy equipment and retardant for wildland fire suppression should be avoided in designated VRM Class I and Class II areas unless the impact of the fire would more severely impact the VRM values than the impact of equipment and retardant.
WF-V2	VRM I and II	Fire rehabilitation of VRM Class I and II areas should be coordinated with a VRM specialist.
FM-V1	VRM I, II, and III	In order to ensure that the objectives of each VRM class is met, contrast ratings are required for all major projects (prescribed burning, mechanical and chemical pre-treatments) on public lands that fall within VRM Classes I and II, and Class III areas which have high sensitivity levels. Actions must not exceed the VRM objectives established for the management class.
FM-V2	VRM	Fuels management projects should be coordinated with a VRM specialist
FM-A1	Aquatic species and habitat	Site-specific assessments should determine appropriate buffer, or interim buffer of two site-potential tree heights should be maintained around streams, ponds, lakes containing Special Status Fish Species in forested areas. See page 16 and Appendix D of the MT/DAKs plan amendment (BLM 2003) for description of methods and rationale.
FM-A2	Aquatic species and habitat	Site-specific assessments should determine appropriate buffer, or interim buffer of one site-potential tree height should be maintained around other fish-bearing streams in forested areas. See page 16 and Appendix D of the MT/DAKs plan amendment (BLM 2003) for description of methods and rationale.
FM-A3	Aquatic species and habitat	Site-specific assessments should determine appropriate buffer, or interim buffer consisting of the body of water or wetland and the area to the outer edges of the riparian vegetation, or to the extent of

Guideline #	Resource to be protected	Guideline
		the seasonally saturated soil, or to the extent of moderately and highly unstable areas, or to a distance equal to one site-potential tree height (whichever is greatest), around ponds, lakes, and wetlands greater than 1 acre in forested areas. See page 16 and Appendix D of the MT/DAKs plan amendment (BLM 2003) for description of methods and rationale.
FM-A4	Aquatic species and habitat	Site-specific assessments should determine appropriate buffer, or interim buffer for non-forested rangeland ecosystems consisting of the body of water or wetland and the area to the outer edges of the riparian vegetation, or to the extent of the seasonally saturated soil, or to the extent of moderately and highly unstable areas, or (in segments where trees are present) to a distance equal to one site-potential tree height (whichever is greatest). See page 16 and Appendix D of the MT/DAKs plan amendment (BLM 2003) for description of methods and rationale.
WF-TE FM-TE	T&E Species	The statewide plan includes guidance for pallid sturgeons, whooping cranes, and prairie dog towns with documented occurrence of Black-footed ferrets; however, these resources are not known to occur currently within the FO area (USFWS current county list). If information related to presence/occurrence changes, guidance in section 2.5.3.1 of the Statewide plan should be incorporated into this FMP for each of these species.
WF-G1 FM-G1	Gray wolf (E)	No human disturbance or associated activities within 1 mile of a den or rendezvous site from April 15 to June 30
WF/FM-E1	Bald Eagle (T)	No human disturbance within ½ mile of bald eagle nests from February 1 through August 15
WF/FM-E2	Bald Eagle (T)	No human disturbance within 1/4 mile of a winter roost from November 1 through March 1 or, if within 1/4 mile, activity should be restricted to a period of 9 am to 3 pm
WF/FM-E3	Bald Eagle (T)	No helicopter/aircraft activity or aerial retardant application within ½ mile of known bald eagle nest sites from January 1 through August 15; or within 1/4 mile of a winter roost from November 1 through March 1
FM-E4	Bald Eagle (T)	No prescribed burning activities within 1 mile upwind of nest sites from January 1 through August 15; or within 1 mile upwind of a winter roost between November 1 and March 1.
WF/FM-M1	Piping plover (T)	No human disturbance within 1/4 mile of any occupied nest sites from April 1 to July 31
WF/FM-M2	Piping plover (T)	No helicopter/aircraft activity or aerial retardant application within ½ mile of piping plover nest sites between April 15 and July 31
FM-M3	Piping plover (T)	No prescribed burning within one mile upwind of any occupied nest sites from April 1 to July 31
WF/FM-L1	Canada lynx (T)	Activities shall not cause a greater than 30% temporary loss or 15% permanent loss of suitable habitat in a decade. In addition, 10% of the Lynx Assessment Unit (LAU) shall remain in denning habitat in patches larger than five acres;
WF/FM-L2	Canada Lynx (T)	Following disturbance such as blowdown, fire, insects, and disease that could contribute to lynx habitat, do not salvage harvest when the affected area is smaller than 5 acres (exceptions would include areas such as developed campgrounds). Where larger areas are affected, retain a minimum of 10% of the affected area per LAU in patches of at least 5 acres
WF/FM-L3	Canada Lynx (T)	Minimize construction of temporary roads, firebreaks, machine lines, etc. on ridges, saddles, or areas that would create permanent travel ways that could facilitate increased access by competitors (e.g. coyote, bobcat);
WF/FM-L4	Canada Lynx (T)	Restrict livestock grazing of fire created openings, aspen stands, willow carrs, and other potential lynx habitat until successful regeneration of shrub and tree components occurs.
WF/FM-L5	Canada Lynx (T)	Processes used to reduce fuel levels, prepare sites for planting or for reintroduction of fire shall preserve the majority of large standing dead trees and large woody debris (denning habitat)
FM-L6	Canada Lynx (T)	Pre-commercial thinning or introduction of fire into lynx habitat shall only occur when the forest stand no longer provides snowshoe hare habitat. This occurs when self-pruning processes have eliminated snowshoe hare cover and forage availability.
FM-L7	Canada Lynx (T)	Design burn prescriptions to create snowshoe hare habitat (e.g. regeneration of aspen and lodgepole pine)

Appendix G: Interim Grizzly Bear Management Guidance

Interim management measures until delisting are:

- Activities in Riparian, Meadows, and Stream Corridors including restoration and improvement projects should be monitored for grizzly bear activity between April 1 and July 1. In areas with grizzly bear occurrence or activity, disturbance activities should be limited during this time.
- Projects that would significantly change the vegetative community should not be implemented in huckleberry producing sites.
- In areas with grizzly bear occurrence or activity, timber or forest treatments should manage for bear hiding cover which is “vegetation capable of hiding 90 percent of an adult bear at a distance of 200 feet.” This definition is from the Flathead National Forest’s definition of bear non-hiding cover (USFS 1992) “vegetation not capable of hiding 90 percent of an adult bear at 200 feet.”
- In order to minimize the potential for habituation or human conflict, activities will adhere to Interagency Grizzly Bear Guidelines or local interagency grizzly bear standards for sanitation measures or storage of potential attractants; (i.e. bear proof containers will be used for storage of food, food garbage, and other bear attractants in fire camps or on fire related activities.)

After delisting the following guidelines will be followed from the “Grizzly Bear Mgmt. Plan for Southwestern Montana”, EIS, 10/2002. The following general management guidelines are applicable coordination measures. They should be considered when evaluating the effects of existing and proposed human activities in identified seasonally important habitats for a variety of wildlife species including grizzlies on federal and State lands.

1. Identify and evaluate, for each project proposal, the cumulative effects of all activities, including existing uses and other planned projects. Potential site-specific effects of the project being analyzed are a part of the cumulative effects evaluation which will apply to all lands within a designated "biological unit." A biological unit is an area of land which is ecologically similar and includes all of the year-long habitat requirements for a sub-population of one or more selected wildlife species.
2. Avoid human activities, or combinations of activities, on seasonally important wildlife habitats that may result in an adverse impact on the species or reduce the long-term habitat effectiveness.
3. Base road construction proposals on a completed transportation plan which considers important wildlife habitat components and seasonal-use areas in relation to road location, construction period, road standards, seasons of heavy vehicle use, road management requirements, and more.
4. Use minimum road- and site-construction specifications based on projected transportation needs. Schedule construction times to avoid seasonal-use periods for wildlife as designated in species-specific

Appendix H: Fire Regime and Condition Class

Fire Regime Condition Class (FRCC) serves as an ecological measure which highlights the degree of departure among fire regime and vegetation variables. Condition Class 1 landscapes are those which have fire regimes and vegetation conditions within a natural range of variation for a given vegetation type. Condition Class 2 and 3 are broadly defined as landscapes with moderate and high departures, respectively. FRCC is a relevant component of FMPs due to its ability to synthesize land health for FMUs and larger areas. In order for all agencies to consistently evaluate and report FRCC, an interagency working group has developed protocols and software to assist FRCC determination. The Standard Landscape Method software was applied to arrive at FRCC ratings for all vegetation types in each FMU (Hann et al., 2002).

The FRCC concept is hinged upon assigning the departure from historic vegetation communities, which are referred to as Potential Natural Vegetation Groups (PNVG). Potential Natural Vegetation Groups are defined as the plant assemblages which would be found prior to EuroAmerican settlement under the natural regime (Hann et al., 2002).

FIRE REGIME DESCRIPTIONS		
FIRE REGIME	FIRE RETURN INTERVAL	SEVERITY LEVEL
I	0-35 Years	Commonly Surface Fire
II	0-35 Years	Stand Replacement Fires High Severity
III	35-100+ Years	Mixed Severity Fires
IV	35-100+ Years	Stand Replacement Fires High Severity
V	200+ Years	High Ratio of Stand Replacement Fires

CONDITION CLASS DESCRIPTION	
CONDITION CLASS	% DEVIATION FROM NATURAL
I	0-33%
II	34-66%
III	67-100%

Appendix I: ID Team Members

1. Anderson, Lynn
Recreation / Visual Resources Specialist
2. Bateson, Eddie
Assistant Field Office Manager / Forestry
Management Specialist
3. Carroll, Tom
Lands / Reality Specialist
4. Coates-Markle, Linda
Wild Horse and Burro Program Manager
5. Hadden, Glade
Cultural Specialist
6. Kodeski, Dick
Pompeys Pillar National Monument Manager
7. Meidinger, Bob
Fuels Management Specialist / Team Lead
8. Osbourn, Alan
Beartooth Ranger District USFS, AFMO
9. Padden, Larry
Range Management Specialist
10. Parks, Jayson
Wildlife Management Specialist
11. Stockwell, Jeff
Beartooth Ranger District USFS, FMO

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