

**Environmental Assessment No. WY 070-EA09-91**

**West Buffalo / Mosier Gulch WUI Community  
Hazardous Fuels Reduction**

NFPORS No. TD32

**I. Purpose and Need**

The Bureau of Land Management Buffalo Field Office proposes to implement the hazardous fuels treatment projects identified in the final Hazardous Fuels Assessment and Mitigation Report for the West Buffalo/Mosier Gulch Wildland Urban Interface (WUI) Communities at Risk Assessment Area. The planning area is located immediately west of the Buffalo, WY city limits along the US Highway 16 and Clear Creek corridor. The legal description of the West Buffalo-Mosier project area includes portions of Sections 1-4 in Township 50 N. Range 83 West (6<sup>th</sup> Principle Meriden) and portions of Sections 35 and 36 in Township 51 N. Range 83 West.

BLM has opted to use the environmental assessment guidelines provided under the Healthy Forests Initiative (HFI) rather than a categorical exclusion because one of the fuel treatment projects proposed in the referenced mitigation plan recommends the use of herbicides. Fuel treatments involving the use of pesticides are specifically prohibited under the HFI guidelines for categorically excluding hazardous fuel reduction actions. This environmental assessment conforms to the requirements specified by the National Environmental Policy Act (NEPA) and Bureau regulation. The proposed action is subject to and consistent with the Buffalo Field Office land use plan (Approved Resource Management Plan for the Public Lands Administered by the Bureau of Land Management, Buffalo Field Office, April 2001).

**Relationship to Other Plans**

Planning and public consultation for the West Buffalo /Mosier Gulch Hazardous Fuels Assessment and Mitigation Report were initiated in the spring of 2008. The plan was completed in May, 2009. The assessment and proposed mitigation measures were developed with close consultation, collaboration, and cooperation from the City of Buffalo, Johnson County Fire Department, Wyoming State Forestry, and residents of the Mosier WUI community. All of the proposed activities were identified through this collaborative framework as described in the Hazardous Fuels 10-Year Comprehensive Strategy Implementation Plan.

BLM actions directed at reduction of hazardous fuels and protection of property from wildland fire does not conflict with other local or state plans. The Johnson County Community Wildfire Protection Plan (August 12, 2004) specifically supports BLM efforts to reduce hazardous fuels in the wildland urban interface. The Community Wildfire Protection Plan identified the Clear Creek watershed as Johnson County's highest priority for hazardous fuel reduction actions and fire mitigation planning.

**II. Proposed Action and Alternatives**

The proposed action is to implement a multi-year program of hazardous fuel mitigation projects that were identified in the West Buffalo / Mosier Gulch Hazardous Fuels Assessment and

Mitigation Report. The report suggested hazardous fuel mitigation measures consisting of constructed fuel breaks, fuel reduction (thinning or shaded fuel breaks) and prescribed burning.

### **Fuel Breaks and Thinning**

BLM proposes construction of a fuel break on the north side of US Highway 16. The Highway 16 fuel break would begin at the lower Elk Ridge Subdivision road and run just outside the north highway right of way fence continue west about 1.5 miles to the point where it intersects Powder River Energy's underground power line utility right of way (see attached map). Most of the fuel break would occur on property owned by the city of Buffalo (0.9 mile). About 0.5 mile would be on private property within the Elk Ridge subdivision, and about 0.1 mile would occur on Johnson County's Recreation and Public Purposes property. Construction would involve use of a small dozer or skid steer to clear all live and dead vegetative material from a 5 to 7 foot wide strip along the highway right of way fence. Where slopes are too steep or rocky for safe operation of equipment the fuel break may have to be constructed by hand crews. Water bars or small gabion structures may be necessary to prevent channeling and soil erosion. Annual maintenance required to prevent reestablishment of vegetation on the fuel break would likely consist of using herbicides or a soil sterilizer. An alternative method of construction of the fuel break would consist of application of a layer of gravel after removing the vegetative material. The gravel would act as a mulch to reduce soil erosion and would be an effective and easily maintained fuel break. A total of 1.3 acres of surface disturbance would occur with implementation of the Highway 16 fuel break.

A shaded fuel break is proposed along the property line between BLM and Nelda and Helen Straight residences. The recommended fuel reduction work would include cutting and removing any dead or down trees, trimming low branches, and fallen limbs within 150 feet of the property line or structures. Along approximately 400 feet of property line, heavy accumulations of needle cast would be raked and shrubs cut extending 15-20 feet into the BLM property. The cut shrubs and needle cast would be removed and piled on either the BLM or City of Buffalo properties and burned in winter when there is adequate snow cover. The trimming and thinning work would be accomplished using chainsaws and hand tools resulting in very light surface disturbance on 1.4 acres and moderate surface disturbance on 0.2 acres where the needle cast is raked and removed. Piling and burning of the vegetative material would impact less than 225 ft<sup>2</sup>. All of the surface disturbance from fuel reduction actions would occur on BLM-administered public land. The disturbance from piling and burning slash might occur on either BLM or City of Buffalo property.

Secondary and or temporary fuel breaks and fire control lines may be constructed in conjunction with implementation of prescribed fire. The location of the fire control lines will be documented in the prescribed fire plan. These lines if needed are most likely to be constructed using hand tools and chainsaws. For the purpose of this analysis we estimate that there will be 0.5 mile of fire control lines constructed and will be located either at the property line separating public and private lands or adjacent to high value property such as the communication facilities located on Windy (North) Ridge. Construction of fire lines will cause light to moderate surface disturbance on less than 0.2 acre.

## Prescribed Fire

BLM proposes to apply prescribed fire to reduce hazardous fuels, improve forest and rangeland health and restore fire to the ecological function and fire return intervals on 1,000-1,500 acres within the planning unit. The burns will be scheduled over a period of several years with no more than 500 acres burned in a given year. Most of the units identified for prescribed burning are on BLM-administered public land (60%), with City of Buffalo and Johnson County properties comprising 23%, and private lands about 17%. The proposed prescribed fire burn units are shown on the attached map. Ponderosa pine forest (fuel types TL3 and TL8) and grass shrub (GS2) are the primary vegetation/fuel types identified for application of prescribed fire. Fire and resource management objectives are to:

- a. Apply prescribed fire in the ponderosa pine vegetation/fuel type to break up surface fuel continuity and consume 50 to 100% of dead plant material and forest litter within the burn units.
- b. Reduce conifer encroachment into the grass and grass shrub vegetation/fuel types (GR1 and GS2 fuel models) by using prescribed fire to kill 30 to 100% of the ponderosa pine saplings and regeneration on 50 to 100% of the burn units.
- c. Apply prescribed fire on 50 to 100% of south facing slopes within the project area to create a mosaic of burned and unburned patches having a diversify vegetation age and structure classes and improved quality and quantity of herbaceous forage for big game wildlife.
- d. Use a burn prescription in the ponderosa pine forest areas (TL3 and TL8 fuel models) to provide up to 100% mortality on ponderosa pine regeneration having less than four inch diameter at breast height (dbh) and maintaining less than 10% mortality on mature (>8 inch dbh) ponderosa pine. Limit areas of stand replacement severity fire to no more than 10% of the forested areas within each of the burn unit or 10 acres, whichever is less.
- e. Move the stand level Fire Regime Condition Class (FRCC) rating for 50 to 100% of the forest areas within the planning area that are classified as Northern and Central Rockies Ponderosa Pine (PPIN2) biophysical setting or potential natural vegetation group from a FRCC rating of 2-3 to a rating of 1 or 2 within 15 years of initiation of the prescribed fire treatments.

Prior to conducting the burns, BLM will prepare a detailed and comprehensive prescribed fire plan that specifies how, when, and where the burns will take place. The plan will include prescriptions for conducting both broadcast and slash pile burning within the planning area. In developing the prescription for burning, the BLM fuels specialists evaluate multiple factors that influence fire behavior such as temperature, relative humidity, wind speed, slope, aspect, fuel type and conditions, and forecasted weather. The plan establishes the personnel and the amount and types of equipment required to conduct the burn and contain the fire within the planned perimeter. The prescribed fire plan will also include agreements or permissions for burning any non-BLM administered land.

BLM anticipates that no post burn reclamation or rehabilitation actions will be necessary on broadcast burn sites. Slash pile burn sites will be seeded using a mixture of native grasses and forbs within one growing season following burning. The slash pile sites, fire control lines, and broadcast burn units will be monitored following treatment for establishment of weeds. If weed

densities reach threshold levels determined by the resource specialists, BLM will implement mechanical and/or chemical treatments as necessary to control them. Prior to applying any chemical weed control measures on public lands, BLM will include the treatment site(s) in the Buffalo Field Office's Pesticide Use Proposal and weed treatment Environmental Assessment.

Prior to conducting any surface disturbing activity on BLM or cooperator property within the planning unit, the Buffalo Field Office archaeology staff will conduct an appropriate level of cultural resource inventory. Special stipulations to protect or avoid significant cultural, historic, or paleontological sites will be applied to the proposed activities.

## **Alternatives**

### No Action Alternative

The no action alternative is to continue present management and use. Under this alternative, none of the fire mitigation and protection activities proposed in the Buffalo West/Mosier Fire Mitigation Plan would be implemented on BLM-administered public lands. Individual public and private property owners might apply some of the mechanical treatments such as the Highway 16 fuel break. Given the intermingled land ownership pattern it is very unlikely that any broadcast prescribed burns would be attempted.

## **III. Affected Environment Environmental Impacts and Mitigation Measures**

### **Affected Environment**

#### **Cultural**

Although the majority of the project area has not been inventoried for cultural resources, significant cultural resources are present. Known sites include rock shelters, stone circles, lithic scatters, buried prehistoric sites, historic trails, an historic dam, an irrigation ditch and historic structures. Most known sites are in or near the bottom of the Clear Creek valley, although significant sites such as rock shelters may be present throughout the project area.

#### **Wildlife, Sensitive, and Threatened/Endangered Species**

The project area contains a mosaic of mountain grassland and shrubland (62%), conifer forest (25%), deciduous lowland riparian forest (10%), and non-vegetated (3%) habitats supporting a diversity of terrestrial and aquatic wildlife species. About three miles of Clear Creek traverses the project area. Clear Creek provides prime cold water fishery and is the municipal water source for the City of Buffalo. Mule deer (*Odocoileus hemionus*), whitetail deer (*Odocoileus virginianus*), elk (*Cervus elaphus*), and moose (*Alces alces*) are the most common big game species within the project area. American pronghorn (*Antilocapra americana*) are also present. Whitetail deer are present yearlong, and are found primarily along the Clear Creek and Mosier Gulch drainages. Mule deer and elk utilize all habitats within the project area, but are most abundant during the late fall and winter on the open slopes above Clear Creek. Pronghorn primarily utilize the open grassland areas on North (Windy) Ridge.

Portions of the project area are within identified crucial winter range for elk. These areas include portions of sections 2 & 3, T50N, R83W; section 4, T50N, R83W; W1/2 section 35, T51N, R83W. Projects planned within section 4, T50N, R83W are within one mile of designated elk parturition range.

Wild turkey (*Meleagris gallopavo*) and blue grouse (*Dendragapus obscurus*) are likely the most common game birds within the project perimeter.

The area is habitat for a wide variety of predatory mammalian and avian species including mountain lion, coyote, black bear, badger, and weasels. Common birds of prey include golden eagles, red-tailed hawk, and American kestrel. All of the passerine birds and small mammals commonly present in the low to mid-elevations of the Bighorn Mountains are also present on the site. Portions of the project area along Clear Creek contain potential habitat for bald eagle nesting and winter roost areas.

### **Vegetation/Soils/Ecological Site**

The project area is located at the lower end of the 15-19 inch precipitation zone, Northern Plains Major Land Resource Area (MLRA) as defined by the Natural Resources Conservation Service (NRCS). There are three predominant vegetation types in the treatment unit: open grassland /shrubland parks, riparian lowlands, and ponderosa pine forest. Soils in the riparian lowlands and grassland parks are primarily shallow loams and very shallow (less than 10 inches deep). The sites dominated by sagebrush vegetation are primarily coarse upland ecological sites. Soils in the timber areas are shallow to moderately deep, well-drained loams.

The predominant herbaceous vegetation species in the parks are Idaho fescue, mutton bluegrass, bluebunch wheatgrass, King spike fescue, needleandthread grass, and western wheatgrass. Ponderosa pine is the primary tree species present occupying about 600 acres. On south and west aspects the ponderosa pine is mixed with occasional limber pine and rocky mountain juniper at the ridge tops and rock outcrop areas. Most of the ponderosa pine forest is considered as low to moderate value commercial timber. Steep terrain and lack of road access limits accessibility and value especially under the current market conditions.

Narrow leaf cottonwood, aspen, and alder are the dominant overstory vegetation in the lowland riparian zone along the Clear Creek and Mosier Gulch drainages. At the edge of the riparian zone, ponderosa pine, chokecherry, silver buffaloberry, skunkbush sumac, and silver sagebrush are the dominant woody species present. Herbaceous vegetation includes smooth brome grass, western wheatgrass, needleandthread grass, and fringed sage.

Noxious and invasive weed species present on the project sites and near the proposed action include Canada thistle (*Cirsium arvense*), and downy brome (*Bromus tectorum*). Other weeds observed in the vicinity include houndstongue (*Cynoglossum officinale*), common mullein (*Verbascum thapsus*), and burdock (*Arctium minus*).

### **Livestock Grazing**

All or portions of the following BLM grazing leases occur within the planning area:

John and Laura Dematteis: 4907009

Mosier Gulch Allotment - 22029, 43 AUMs, 7 Indigenous 03/01-2/28 at 51% PL  
T 50N., R83 W., Sec. 3, W1/2 SE1/4, E1/2 SW1/4 - 160.22 acres

Mary Ann (Jonesy) Smith: 4907513

Smith Allotment - 02300, 23 AUMs, 10 Horse 3/15-11/15 at 14% PL  
10 Cattle 3/15-11/15 at 14% PL  
T 50N., R83 W., Sec 3, S1/2 NE1/4, SE1/4 NW1/4 - 120 acres

Grant Gregory: 4907611

North Ridge Allotment - 02363, 57 AUMS, 50 Cattle 9/1 - 11/8 at 50% PL  
T 50N., R83 W., Sec. 1, Lots 7, 15-19, and 22 - 25.06 acres  
Sec 2, Lots 1 - 60 - 309.95 acres Total 335.01 Acres

John K. McKinley, 4907287

Trail Side Allotment - 02417, 14 AUMs, 58 Cattle 6/15 - 9/30 at 7% PL  
T 50N., R83 W., Sec 4, NW1/4 SW1/4 - 40 acres

Livestock grazing is not authorized except for trailing use on about 300 acres of BLM public land and on the lands owned by Johnson County and the City of Buffalo. Livestock grazing use on the BLM allotments is very light due to the lack of water sources and steep terrain.

### Environmental Impacts

Impacts to critical (mandatory) environmental elements under the proposed action and other alternatives are listed below:

Critical Element	Assessed Impact	
	Proposed Action	No Action Alternative
Air Quality	see text	Not Affected
Areas of Critical Environmental Concern	Not Affected	Not Affected
Environmental Justice	Not Affected	Not Affected
Prime/Unique Farmlands	Not Affected	Not Affected
Invasive Non-Native Weed Species	see text	Not Affected
Native American Religious Concerns	Not Affected	Not Affected
Hazardous/Solid Wastes	Not Affected	Not Affected
Surface and Ground Water Quality	see text	Not Affected
T & E Species	see text	Not Affected
Wetlands/Riparian Zones	see text	Not Affected

Wilderness Areas	Not Affected	Not Affected
Wild & Scenic Rivers	Not Affected	Not Affected

**Effects of the Proposed Action on Vegetation/Aesthetics**

Surface disturbance associated with construction of shaded fuel breaks and fire control lines will result in removal of herbaceous vegetation from less than two acres. Precluding maintenance actions on the fuel breaks, the vegetation could recover to pre-treatment conditions within three years of the disturbance. Exposure of mineral soil will increase the potential for establishment of invasive species such as cheat grass. Ponderosa pine seedling establishment is also favored when mineral soil is exposed. Application of gravel mulch and soil sterilizer or other herbicides on the Hy 16 fuel break will result in long term impacts to vegetation on about one acre. In the absence of maintenance application of herbicides, native vegetation could reestablish within ten years.

Aside from the immediate or first order fire effect consisting of consumption of living and dead plant material, the effect of applying prescribed fire on herbaceous vegetation is expected to be minimal and of relatively short duration. Most of the native grasses and forbs will be dormant when they are burned and will resprout the next growing season. BLM's past experience in applying prescribed fire suggests that we can expect a short term increase in some native forbs such as lupine and arrowleaf balsamroot. Within one to two years, production of native grass species including Idaho fescue, King spike fescue, slender wheatgrass, and needleandthread grass will likely exceed pre-burn production levels by several fold. The increased production of herbaceous vegetation can be attributed to a reduction in competition from woody species for moisture, nutrients, sunlight, as well as a spike in the availability of nutrients following burning. The new growth of vegetation following fire is more palatable and nutritious to both wild and domestic grazing animals. We expect an increase in grazing use by big game animals for three to five years following the burn. The impact of grazing on vegetation will be mitigated as additional units are burned and by application of prescribed fire on adjoining land such as the US Forest Service's South Slopes prescribed burn project.

After treatment, the burn areas will contrast with the surrounding landscape. The visual impact will be most noticeable immediately following the burns when the surface fuels are blackened and the needles of scorched trees are reddish brown. The contrasting appearance of the burned areas will change the spring following treatment when the surface fuels will appear much greener than unburned vegetation. After two years, the effects will be much less noticeable to a casual observer as the landscape will appear as a diverse mosaic of early and later successional vegetative communities. Visual impacts to persons using the Highway 16 (Cloud Peak) Scenic Byway will be minimal and short term, as topography will screen most views of the burned areas from the highway. Most visitor use of Highway 16 occurs during the summer months, so relatively few visitors will have views of the treated areas when visual impacts are highest.

**Effects of No Action on Vegetation/Aesthetics**

The primary effect on vegetation of continuation of current management and use is forest encroachment into the shrub and grassland park areas. Over the next 10 to 20 years an estimated 200 acres within the planning area will likely convert from shrub/grass to forest vegetation. Tree

density in open canopy forest will likely continue to increase, eventually resulting in elimination of most understory herbaceous and shrub vegetation. Since forest vegetation is the climax plant community for these sites, the timber will remain until fire or human actions initiate change. The slow conversion of vegetation from grass/shrub to forest vegetation is not likely to have a significant effect on aesthetics or visual resource values. However, the occurrence of a large wildland fire in the planning area would negatively impact visual resource values.

### **Effects of the Proposed Action on Soils, Water, Air**

Surface disturbance associated with construction of fuel breaks and fire control lines will result in a short term increase in the exposure of soils to erosion agents. Since there will be less than three acres of total disturbance and the impacts spread over both time and area, soil erosion loss will be insignificant except at the most extreme localized area. Application of prescribed fire will expose up to 500 acres of soil surface for periods of one to several months annually. The steep slopes and moderate to high potential for thunderstorm events could result in accelerated soil erosion from burned sites. There is a low potential that sediment removed from a burned area by a flood event could reach Clear Creek and adversely impact water quality or the City of Buffalo's water treatment facility located at the east end of the project area. The municipal water intake is located upstream of the planning area, which greatly reduces the likelihood of economically significant impacts from soil or sediment erosion from the burn units. Over the long term, increased vegetative cover on burned areas will result in a slight decrease in soil erosion. There are no mechanical or prescribed fire treatments planned in riparian or wetland areas. Aside from the potential indirect effect of accelerated soil erosion discussed above, wetland and riparian areas will not be affected by implementing the proposed action.

The mechanical fuel treatments associated with the proposed action will not significantly affect air quality. Implementation of prescribed fire is likely to result in short term localized reductions in air quality. BLM will conduct the slash burns in accordance with BLM and Wyoming Department of Environmental Quality regulations to minimize off site smoke impacts. There is a moderate potential that smoke from prescribed fire could reduce visibility on US Highway 16 and/or significantly reduce air quality in the City of Buffalo.

### **Effects of No Action on Soil, Water, and Air**

Continuation of current management and use is likely to have very little short term effect on soil, water, and air resources. Over the long term, increasing risk of wildland fire also increases risk of accelerated soil loss and stream sedimentation following a fire, and reduced air quality from smoke.

### **Effects of the Proposed Action on Wildlife**

Mechanical fuels treatments are likely to cause very minor short term disturbance or displacement to wildlife. These impacts will not extend beyond the immediate vicinity of the treatments. The broadcast prescribed fire operations are likely to cause minor short term impacts to wildlife as the animals are displaced by the human activity or fire. During burning activities and shortly thereafter, wildlife may avoid the project area. However, after the burn is completed,

wildlife will move back into the area. There will be some mortality of small mammals.. Some song birds dependent on closed canopy forest may be displaced over the long term. Creating openings in dense forest stands may improve raptor hunting opportunities for small mammals.

A temporary loss of forage will occur, but vegetation production will resume as spring growth proceeds. Burning will improve the quantity, quality, palatability and availability of herbaceous forage and some browse species used by wildlife. Large animals such as mule deer and elk will be attracted to the treatment areas and the use in these areas is expected to increase. There is a remote chance that increased big game use could result in an increase in vehicle/wildlife collisions on US Highway 16. The improved forage conditions may result in a slight localized increase in the big game population within the project area.

The proposed fuel treatment actions will have no effect on threatened or endangered, species. Suitable habitat for black-footed ferret, and Utes ladies'-tresses orchids does not exist within the treatment areas.

During the planning process for individual burns or mechanical treatments, a BLM biologist will survey the treatment area to identify potential impacts to nesting raptors and big game utilizing crucial habitats in, and adjacent to, the project area. Mitigation measures for those resources affected will be incorporated into the specific treatment plans at that time.

### **Effects of No Action on Wildlife**

Continuation of current management and use is unlikely to significantly affect wildlife resources in the short term. Over the long term, wildlife species dependent on grasslands and open canopy forests may experience a slight population decline as the open grassland/shrub vegetation is replaced by ponderosa pine forest. Species such as red squirrel that prefer mature forest may experience a corresponding increase in their population.

### **Effects of the Proposed Action on Fire**

Construction of fuel breaks is expected to substantially reduce the risk from wildland fire to residents living north of Highway 16. The dense grass and steep uphill slope on the north side of the highway provide conditions favorable for rapid rate of fire spread. The Highway 16 fuel break will provide a check point for fire originating along the highway right of way and give firefighters additional time to respond.

Implementation of broadcast prescribed fire will result in a general reduction in fuel loading on the treated sites and particularly the ponderosa pine forest areas. The overall reduction of fuel loads and breaking of fuel bed continuity on the treated sites together with elimination of most ladder fuels will reduce susceptibility of the timber stands to catastrophic loss from wildland fire. The relative ease of fire containment and mop up would be improved on the burned sites. In the event of a wildfire occurring on the site after treatment, we expect that there would be very little mortality of ponderosa pine trees. Ponderosa pine has a relatively thick bark and is adapted to survive the kind of low intensity fire that would likely occur on the site following treatment.

## **Effects of No Action on Fire**

The primary outcome of continuation of current management and use would likely be that fuel reduction and mitigation measures in the planning area would be limited to implementation of defensible space measures by individual property owners. Residents and property owners in the planning area especially those on the north side of US Highway 16 would be at ever increasing risk from wildland fire. Forest and rangelands would mature naturally resulting in increased fuel loading levels especially within the ponderosa pine forests. Vegetation mortality and regeneration would occur because of natural processes such as wildland fire, disease, and storm damage. The Fire Regime Condition Class (FRCC) rating of the forest areas within the planning area would remain as condition class II or III. Stand replacement fire resulting in mature tree mortality of 80% or higher is likely to occur within the next 20 years. Wildland fires occurring in the area would exhibit a fairly high level of resistance to fire suppression efforts of firefighters due to the presence of continuous, high density fuels on steep slopes with difficult access.

## **Effects of the Proposed Action on Cultural Resources**

Any activity that removes vegetation that leads to soil erosion or creates surface disturbance can cause impacts to cultural resources. Removal of stabilized vegetation cover by burning may increase erosion which will increase the rate of natural deterioration of cultural resources. Burning of vegetation will increase the visibility of certain materials and enhance the potential for illicit collection and the consequent loss of valuable cultural data. Cultural materials consisting of organic matter will be destroyed by burning. Destruction of cultural resources can occur during construction of fire control lines or fuel breaks. As no substantive inventory has been conducted in the treatment area, it is unknown if significant sites are present. Class III inventory will be conducted prior to authorizing any activity associated with the project. If significant cultural resources cannot be avoided mitigation of adverse effects must take place.

## **Effects of No Action on Cultural Resources**

Current management should not result in impacts to cultural resources.

## **Effects of the Proposed Action on Livestock Grazing**

The proposed mechanical treatments are unlikely to have any significant effect on livestock grazing within the project area. Implementation of prescribed fire will have a short term impact of displacing livestock from the burn unit(s) and reducing the amount of forage available. There is a low possibility that portions of either the highway right of way fence or allotment boundary fences could be damaged by fire or falling snags. There is a low risk that livestock could escape through damaged boundary fences and pose a driving hazard to motorists on US Highway 16. The costs associated with recovering or replacing livestock losses and repairing damaged fences would be a negative economic impact on individual ranching operations. Within one growing season following burning, livestock will be attracted to the new forage on the burned areas and may overgraze some areas. The improvement in forage conditions in timber stands may result in a very slight increase in livestock production from the units. There is a very low chance that the increased livestock use could lead to localized reduction in rangeland health and accelerated soil

erosion.

### **Effects of No Action on Livestock Grazing**

In the short term, livestock grazing will not be affected by continuing current management and use. Over the long term, there will be a slight reduction in the quantity, quality, and availability of forage for livestock as the ponderosa pine forest canopy closes and tree seedlings become established in the open meadows and parks. Given the already very light levels of livestock grazing use, it is unlikely that this small reduction in forage will have a noticeable effect on ranch economics or operation.

### **Cumulative Impacts**

Construction and improvement of access roads and the associated development of residences and summer homes are the likely cause of most of the surface disturbance in the planning area and southern Bighorn Mountains. The small and localized soil erosion resulting from implementation of the proposed action mechanical treatments will not significantly contribute to the baseline soil erosion levels in the planning area.

The US Forest Service has an active prescribed fire program focused on burning south facing slopes at low to mid elevations. About 200-500 acres are burned annually in the Cloud Peak District including the Clear Creek, Crazy Woman, French Creek and Rock Creek watersheds. Implementation of the proposed action's prescribed fire treatments could potentially double the total area burned annually in the Clear Creek watershed. Cumulative impacts (both positive and negative) from all prescribed fire uses in the area are unlikely to be significant beyond the local level. Under a worst case scenario, less than 1% of the total watershed would be treated with prescribed fire annually. All agencies conducting prescribed burning are aware that they share air and watershed space and coordinate activities to minimize adverse impacts.

### **Residual Impacts**

There will be a small accelerated loss of soil to wind and water erosion until the treated areas re-vegetates. If cultural resources are irretrievably damaged or removed from public lands, the information they contained would be lost. The aesthetics of a small segment of the Cloud Peak Scenic Byway will be diminished until vegetation is reestablished. Application of prescribed fire will result in a short term loss of livestock and wildlife forage on 200 to 500 acres annually. Forage quality and quantity for wild and domestic ungulates will be improved on 1,000 to 1,500 acres for a period of 10 to 15 years. Smoke from prescribed fire will reduce local air quality and visibility for motorists using US Highway 16. Some wildlife will be displaced or possibly killed when their habitat is burned.

### **Proposed Mitigation/Monitoring**

1. All prescribed burning will be conducted in accordance with an approved prescribed fire plan.
2. Burn pile sites will be reseeded using a mixture of native herbaceous species such as western

wheatgrass, bluebunch wheatgrass, green needlegrass, mountain brome, American vetch, and purple prairie clover.

2. BLM will monitor burn pile and surface disturbance sites so that establishment of noxious weeds is detected and treated before they can produce seed and spread.
3. All prescribed burning will be conducted under a burning prescription that will provide for smoke dispersal in accordance with Wyoming Department of Environmental Quality permit requirements. During prescribed fire operational periods, BLM will place signs on US Highway 16 east and west bound approaches advising motorists of smoke hazards.
4. BLM resource specialists will identify sites requiring water bars and diversions as necessary to control soil erosion and water channeling on fuel breaks and/or fire control lines.
5. If significant historic properties eligible to the National Register and requiring protection from prescribed fire are found to be present in the proposed burn area, they will be isolated from the general burn during site preparation activities. If previously unknown cultural materials are discovered during construction of fuel breaks or prescribed fire operations, they will be left intact and the BLM's authorized officer notified.
5. BLM resource specialists will monitor treatments and evaluate whether resource and fire managements objectives are being met. Based on these evaluations, BLM may suspend, discontinue, or adjust the implementation actions in order to meet resource management objectives.

### **Consultation and Coordination**

BLM initiated extensive public consultation during development of the West Buffalo / Mosier Gulch Hazardous Fuels Assessment and Fire Mitigation Plan. During development of the plan, BLM has issued press releases and articles having local, regional, and national coverage. This included a Wyoming media press release, a Snapshot (BLM Newsletter focusing on National Fire Plan implementation) article, and an article for the Spring 2009 County fire mitigation Newsletter. Additionally, BLM's fuels specialist and the Johnson County Fire Mitigation Coordinator met individually with most of the residents and property owners within the planning area to inform and discuss the fire mitigation actions being considered.

### **EA Prepared by**

John S. Hannan, BLM Fuel Specialist (Ret.)

Specialists included in Preparation/Review of the Hazardous Fuels Mitigation Plan/EA:

Kristi Bullock, BLM, Fuels Management  
Gregg Buckalew, BLM, Fire Management  
Kay Medders, BLM, Rangeland Management  
Cindy Allen, BLM, Forestry  
Dan Thiele, Wyoming Game and Fish Department  
Mike Hostetler and Paul Wright, Wyoming State Forestry

Jim Shell, Johnson County Fire Mitigation Coordinator  
Wes Johnson, Johnson County District 1 Fire Chief  
Colin Betzler, City of Buffalo Planning Office

**Finding of No Significant Impact/Decision Record**  
West Buffalo Mosier Hazardous Fuel Mitigation  
WY 070-EA09-91

I have reviewed the environmental assessment including the explanation of any potentially significant environmental impacts. I have determined that the proposed action with the mitigation measures described will not have any significant impacts on the human environment and that an EIS is not required. The proposed actions are in conformance with the Buffalo Field Office land use plan.

My decision is to implement the projects as described in the proposed action section of this document. All of the mitigation measures identified in this document will apply. The project will be evaluated as each unit is completed. My decision, regarding whether the program will be continued or adjusted (increased or decreased) to meet BLM's resource objectives, will be based on that analysis.

If you wish to protest this proposed decision as provided by Title 43 CFR 4160.2, you are allowed 15 days after receipt of this notice within which to file such protest, either in person or in writing with the Field Manager, Bureau of Land Management, Buffalo Field Office, 1425 Fort St. Buffalo, WY 82834.

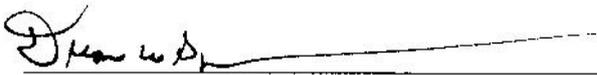
In the absence of a protest within the time allowed, the above proposed decision shall constitute my final decision as provided by Title 43 CFR 4160.3(a). Should this notice become the final decision, you are entitled to appeal and have the case heard by an Administrative Law Judge, as provided by Title 43 CFR 4.470. You are allowed 30 days after this becomes the final decision within which to file such an appeal with the Field Manager, Bureau of Land Management, Buffalo Field Office, 1425 Fort St. Buffalo, Wyoming 82834.

Upon receipt of an appeal, I will promptly transmit the appeal, petition for stay and the accompanying administrative record to ensure their timely arrival at the Office of Hearings and Appeals. The appeal shall state the reasons, clearly and concisely, why the appellant believes this decision was issued in error. All grounds of error not stated will be considered waived.

An appellant who wishes to file a petition for stay shall show sufficient justification based on the following standards:

- The relative harm to the parties if the stay is granted or denied;
- The likelihood of the appellant's success on the merits;
- The likelihood of immediate and irreparable harm if the stay is not granted; and
- Whether the public interest favors granting the stay.

If you have questions concerning the environmental assessment, or decision please contact the Buffalo Field Manager, Duane Spencer, at the Buffalo Field office (307) 684-1100.



Duane Spencer  
Field Manager, Buffalo

8/10/2009

Date