



In Reply To:

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT

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9200 (MT070)

AUG 26 2011

*Greetings,*

The Bureau of Land Management (BLM) Butte Field Office is requesting scoping comments on a habitat restoration project in the Jerry Creek, Johnson Creek, Alder Creek, Wise River and Charcoal Gulch areas near Wise River. The Upper Big Hole East Landscape Restoration Project is considering vegetation modification activities to restore or improve conditions in forest, sagebrush, stream, and riparian habitats. The project is being designed to improve habitat for wildlife and fish as well as to improve stand conditions in Douglas-fir and lodgepole pine forests. The project also proposes reducing fuels (dense, overstocked forest stands) to decrease the risk of large scale wildfire, reviewing travel management on three roads and improving livestock grazing management. Under this planning effort, projects on BLM managed lands will be designed to meet or make significant progress towards meeting the Montana Dakotas Standards for Land Health.

The Upper Big Hole East Landscape Restoration project area is located approximately 25 miles southwest of Butte in the Big Hole Watershed, T. 1 S., R. 10 W., Sections 1-15, T. 1 N., R. 10 W. Sections 30-32, T. 1 N. R. 11 W. Sections 13-15, 17-19, 20-29 and 31, T. 1 N. R. 12 W. Sections 2-3, 10-15, and 23-24, T. 1 S., R. 11 W. Sections 5-8 and 18. There are roughly 23,000 acres of BLM managed lands in the project area (Figure 1).

## **Purpose and Need:**

The purpose of the Upper Big Hole East Landscape Restoration Project is to address land health issues and implement restoration projects to: (1) reduce the density of trees in Douglas-fir and lodgepole pine forests to restore or increase stand vigor and understory diversity; (2) reduce conifers from sagebrush/grassland meadows to restore and/or maintain current and historic sagebrush/grassland habitats; (3) reduce conifers in aspen and riparian habitats to restore and/or maintain aspen stands and increase the vigor and diversity of riparian vegetation; (4) restore instream habitat for fish and other aquatic dependant species; (5) reduce the risk from wildland fire in the wildland-urban interface; (6) reassess three roads for public access; (7) issue grazing permits and improve livestock grazing management; and (8) close unsafe abandoned mines.

## **Forest Stands**

Douglas-fir stands and large individual Douglas-fir trees are dying or susceptible to mortality due to previous drought conditions and dense forest stands that provide ideal conditions for forest insect activity. Increasingly dense stands of Douglas-fir are susceptible to the western spruce budworm because these stands are often stressed by competition between densely growing trees and interlocking branches that allow spruce budworm to easily move from tree to tree. Areas of Douglas-fir mortality and poor stand

conditions due to western spruce budworm can be seen in the Jerry Creek to Johnson Creek areas. Not only are Douglas-fir stands experiencing significant damage from the western spruce budworm, but the Douglas-fir beetle is attacking and killing the largest and oldest Douglas-fir in stands throughout the planning area. Old growth trees stressed from resource competition and from a loss of foliage due to budworms are highly susceptible to Douglas-fir beetle attacks and mortality.

Epidemic levels of forest insects reduce the number of live trees in forest habitats and remove all size and age classes, including the healthiest trees in a stand. Often times, heavily defoliated trees can survive an epidemic but end up in poor condition and may continue to compete with other trees for resources. It is important to reduce the density of trees in insect damaged stands to improve the environmental condition for the remaining trees. Thinning these stands allows managers to select the best quality surviving trees to promote a healthy forest in the future.

Within the planning area, lodgepole pine stands are dying due to on-going infestations of the mountain pine beetle. Mountain pine beetle populations had been increasing over the last seven years due to above-average winter and spring temperatures which allowed greater numbers of beetle larvae to survive the winter. During the late fall of 2009 and early spring of 2010, however, the population of mountain pine beetle in the Wise River area may have been reduced due to colder than average temperatures at a time when the beetles were vulnerable to mortality. Although many stands of lodgepole pine in the planning area already have high levels of mortality due to mountain pine beetle, some stands with live trees could benefit from forest thinning activities.

To promote healthy diverse forests, there is a need to reduce the density of trees in Douglas-fir forest stands and woodlands as well as in live lodgepole pine stands to reduce the risk of insect related mortality, increase the vigor and health of stands, protect old-growth trees, reduce the risk from wildfire, and increase the diversity of understory vegetation within these stands.

Past timber harvest, primarily clear-cutting, occurred in the project area principally from the 1960s through the mid-1980s. Past harvest areas are composed of both lodgepole pine and Douglas-fir and some of these stands are now of size and age where stand density could be affecting growth, especially lodgepole pine stands in the Alder/Teddy Creek drainages. Other previously harvested Douglas-fir stands, however, continue to have very low regeneration even after 30-40 years. Low regeneration is observed in past harvest units between Jerry Creek and Johnson Creek.

To improve growing conditions and stand resiliency in some past timber harvest areas, there is a need to reduce forest stand density. In other areas, there is a need to plant trees in past timber harvest units with currently low regeneration of trees.

Figure 1 shows potential restoration areas in "forest" and in "woodland" habitats. Forest habitats are Douglas-fir, lodgepole pine or a mix of conifers where restoration activities would focus on thinning stands to remove many small, subdominant and poor quality trees to promote a healthy forest with a range of size classes. Thinning activities would typically result in canopy cover remaining fairly high at 50-60 percent. Woodland habitats are typically Douglas-fir with an understory of sagebrush, grass and forbs. Historically, frequent fires would have maintained low tree densities in this habitat type. Thinning activities would be designed to remove a high number of trees and typically result in canopy cover less than 30 percent.

Natural events such as blow-down, wildland fire and insects can result in high concentrations of fuels. In cases where standing dead or down wood creates a high risk for large, uncontrollable or extreme fires, there is a need to remove standing dead or down woody material.

## **Sagebrush/Grassland Parks and Mountain Mahogany Stands**

Management practices in the last century, including fire suppression and livestock grazing, have influenced the size class of Douglas-fir stands and have allowed Douglas-fir to colonize dry grassland and sagebrush parks that historically had low densities of conifers. These important plant communities provide valuable habitat for a variety of wildlife species and are diminishing in size and quality. There is evidence in the Fleecer Mountain area that Douglas-fir trees were limited to “islands” in the past, and more recently have encroached into sagebrush/grassland areas. Fire was important in the past at creating heterogeneous landscapes of Douglas-fir savannas, mountain big sagebrush, and grasslands. In the continued absence of fire, these landscapes are likely to become more homogeneous as trees dominate much of the landscape.

Some mountain mahogany stands within the planning area are also experiencing a decline due to conifer expansion. These stands are primarily located along steep, rocky slopes in the project area. Mountain mahogany provides excellent winter browse for big games species and maintaining mahogany is crucial for wildlife habitat across the landscape.

To increase or maintain sagebrush vigor and persistence on the landscape as well as to maintain or restore a diversity of meadow grasses, forbs and shrubs, there is a need to reduce colonizing conifers from sagebrush/grassland parks (Figure 1). There is also a need to reduce colonizing conifers from mountain mahogany stands. Restoration activities could remove up to 95 percent of invading conifers from these habitat types.

### **Riparian Habitats**

Deciduous and shrub dominated riparian habitats are being reduced in size and distribution across the landscape due to conifer colonization, change in fire frequency and browsing pressure from domestic and wild ungulates (livestock and big game).

To restore or maintain riparian habitats dominated by deciduous trees, shrubs, sedges and forbs, there is a need to reduce colonizing conifers from deciduous and shrub dominated riparian habitats. Some riparian habitats could be fenced for a short period of time (<10 years) to allow for shrubs and trees to become established above the browse level for livestock and wild ungulates.

In some areas, conifer dominated riparian habitats have been severely altered by past timber harvest that removed trees up to and along the stream banks. There may be a need to re-establish conifers in these types of riparian systems.

### **Aspen Stands**

Within conifer stands are small, isolated clones of aspen that have diminished greatly in patch size and distribution over the last 80 to 100 years due to conifer expansion, disruption of fire return intervals, and browsing pressure from domestic and wild ungulates. Aspen is the single forest type considerably below historic levels, which is a serious concern for wildlife species dependent on aspen for food and/or cover.

To promote and improve aspen stands, colonizing conifers that overtop and compete with aspen would be removed. Up to 95 percent of invading conifers could be removed from in and around aspen stands. Some aspen stands could be fenced for a short period of time (<10 years) to allow for trees to become established above the browse level for livestock and wild ungulates.

## **Instream Restoration**

Several fish bearing streams in the proposed project area have been impacted by past management activities. Past timber harvest removed instream woody material from some stream reaches resulting in shallow streams with few pools and a lack of habitat diversity. The loss of active beaver dams within other stream reaches (likely a result of trapping), has led to stretches of downcut streams with a lack of pools and other habitat structure.

Instream restoration is needed to improve habitat diversity by promoting pools, cover and spawning habitat for fish bearing streams and to protect water quality in non-fish bearing streams. Instream restoration activities could include placing trees in creeks to create pools and raise the water table. Several streams could be included in the proposed project for instream restoration including Spring Gulch, Jimmie New Creek and West Fork Jimmie New Creek.

Beaver re-introductions could be considered in areas where adequate willow and other riparian vegetation exist that could support beavers.

## **Wildland Urban Interface**

With forested lands and sagebrush/grasslands existing in the state as described above, there is a need to reduce the hazard and risk associated with wildland fire in the wildland urban interface (WUI) and to restore or maintain forested and sagebrush/grasslands to their desired ecological conditions consistent with their appropriate fire regimes. Thinning to reduce the risk of large scale or uncontrollable fire in the WUI would predominately occur in the Alder Creek, Teddy Creek, Wise River, Johnson Creek and Jerry Creek areas.

## **Travel Planning**

Travel planning for the Upper Big Hole East Planning Area was completed in 2009 through the Upper Big Hole River Travel Management Plan. Since implementation of the travel plan in 2010, additional issues have been identified for three routes in the planning area (Figure 2). These three routes will be re-addressed through the Upper Big Hole East Landscape Restoration Project to consider public access as well as the effects to natural resources such as wildlife habitat, water quality and soil erosion.

An inventory of roads in the planning area has begun and will identify new user created roads, roads missed during the original mapping of the area, and the condition of roads in the planning area. Under this planning effort, minor changes to the Upper Big Hole River Travel Management Plan could occur as a result of this survey.

## **Grazing Permit Renewals and Range Improvement Projects**

The proposed project area is split into nine allotments: Foothills, Leffler, Jerry Creek, Harriet Lou, Quartz Hill, Copp Jackson, Charcoal Mountain, Dickie, and Alder Creek. There are four active grazing permits in the Upper Big Hole East Landscape Restoration project area within six allotments: Copp-Jackson, Foothills, Harriet Lou, Jerry Creek, Leffler, and Quartz Hill. Most of the grazing permits for the allotments within the project area expire in 2016. In order to better manage livestock grazing in the planning area and keep all the permits on the same renewal schedule, the project proposes to renew 10-year term grazing permits on three allotments in the planning area currently leased including Foothills, Jerry Creek, Quartz Hill and Leffler. A new 10-year term permit was issued for the Copp-Jackson

Allotment in 2011 and would not be included under the Upper Big Hole East Landscape Restoration project. The remaining allotments are not currently leased; therefore there is no need to issue permits for these areas.

Monitoring studies will be reviewed to see if previous changes to grazing systems in the allotments are having positive effects or if additional changes are necessary. To address riparian concerns, grazing systems in allotments throughout the project area may be modified and could result in fewer animals, different seasons of use or changes in pasture boundaries. Other types of activities that could be proposed to improve range conditions may include modifying/constructing exclosures to protect riparian values and water quality, moving or replacing tanks, changing allotment boundaries to better manage livestock or protect riparian/aquatic habitats, and replacing fences that are non-functional or that impede wildlife passage or movement.

### **Abandoned Mine Lands**

Within the planning area, mineral exploration was common from the late 1800's to the early 1900's. With the exception of a site up Quartz Hill Road, most of the exploration activities amounted to little production. In their pursuit of gold, silver and other precious metals, however, miners created numerous glory holes, shafts and adits throughout the planning area. These features are often unsafe to the public and, sometimes, wildlife in the case of mine shafts.

In some cases, abandoned mine lands can provide wildlife habitat for bats and other small mammals as well as shelter for mountain lions, bighorn sheep and snakes. Where adjacent habitat is limiting for bats, these mining features can provide valuable habitat. All mining structures in the planning area will be assessed to determine the risk to human safety as well as any wildlife habitat they may provide.

To protect the public, there is a need to permanently close unsafe abandoned mine features. Where mining features provide bat habitat, closures in the form of bat gates would be needed to protect these sites from disturbance and loss of habitat.

### **Initial Proposed Action:**

To address the purpose and needs identified above, the Upper Big Hole East Landscape Restoration Project proposes the following activities.

- Harvest and/or thin approximately 3,000 acres of forest/woodland stands (Figure 1).
- Thin small (<8"DBH) trees from previously harvested stands on approximately 100 acres.
- Remove conifer colonization from approximately 1,000 acres in sagebrush/grassland parks (Figure 1).
- Remove conifer colonization from roughly 50 acres in mountain mahogany stands.
- Reduce the risk of fire on approximately 500 acres in the WUI predominately in the Wise River, Jerry Creek, Johnson Creek, Teddy Creek and Alder Creek areas.
- Salvage of standing dead or down woody material could occur on up to 200 acres.
- Plant conifers in up to 200 acres of previously harvested stands.
- Plant willow, aspen and other riparian vegetation along disturbed stream banks.
- Remove conifer colonization from approximately 100 acres of aspen stands.
- Remove conifer colonization from approximately 100 acres of riparian habitats.
- Re-assess access on three closed roads (4.8 miles) (Figure 2).
- Move the existing gate at Cat Creek to a more appropriate location where vehicles can turn around.

- Decommission 0.5 mile of an already closed road in the West Fork of Jimmie New drainage to reduce runoff and sediment to an adjacent stream.
- Restore 1 mile of instream habitat through the placement of down woody material. Restore West Fork tributary that is currently head-cutting due to improper drainage off an adjacent closed road.
- Close abandoned mine features through gates or backfilling.
- Renew 3 grazing permits for 10 years.
- Install a tank at the Dickie Hills Seep Enclosure to better protect the spring source. Modify fences to make them more functional and allow for better wildlife passage/movement. Assess existing enclosures and modify those that are not functional. Build new enclosures, where necessary, to protect riparian values, aspen stands or aquatic habitat.
- Resurface the Charcoal Gulch Road.

### **Types of Implementation Actions**

Activities to restore vegetation would be completed through a combination of timber harvest, mastication of non-commercial conifers, hand cutting and/or prescribed fire depending on habitat and terrain. Timber harvest would occur in areas where timber volume makes a sale economically feasible and on slopes that are less than 40 percent. There is excellent road access throughout the planning area, but several miles of temporary roads could be necessary during implementation. All temporary roads would be closed and rehabilitated after implementation.

Mastication (shredding trees) would be used to remove trees in areas where a timber sale is not economically feasible, but also on slopes less than 40 percent. Mastication could occur in all habitat types.

Hand cutting conifers and pile burning slash could occur in all different terrain throughout the planning area, especially on steep slopes greater than 40 percent. Hand cutting would typically be used to remove conifers from riparian vegetation, aspen stands and other sensitive habitat types. Most conifers cut by hand would be less than 10"DBH but larger trees could be cut if trees are to be used as natural barriers (such as using down trees to protect aspen stands from ungulate browsing).

Prescribed fire could also be used as a "tool" to reduce tree densities in all habitat types, maintain low tree densities, and to stimulate the growth of understory plant species.

### **Issues**

Potential issues already raised regarding this project include impacts to big game security and hiding cover; effects to wildlife habitat; noxious weed spread; soil compaction and erosion; increased runoff and sedimentation to streams; lack of vegetation biodiversity; and impacts to sensitive plant populations and habitats.

### **Commenting**

The BLM is in the initial stages of preparing an environmental assessment (EA) on the above proposed actions and issues associated with the Upper Big Hole East Landscape Restoration Project. At this time, we would like to hear your comments on any additional issues, concerns or alternatives that should be evaluated by the BLM during this process. We will use your comments to prepare an EA which we plan to make available for public review by February 29, 2012.

If you care to comment, please make your comments as specific as possible, including suggestions regarding resource issues, data sources, or alternatives to be considered in the environmental analysis.

Please provide your comments to the Butte Field Office at 106 N. Parkmont Butte MT 59701 or e-mail [sarah\\_lamarr@blm.gov](mailto:sarah_lamarr@blm.gov). Although comments will be accepted at any time throughout the process, comments accepted by October 15, 2011 would be the most helpful in development of the EA. To be considered, all comments must contain the name and address of the submitter. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment -- including your personal identifying information -- may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

If you have questions regarding this project or if you would like to have your name removed from the mailing list, please contact the Project Lead, Sarah La Marr at the Butte Field Office at 406-533-7636 or e-mail at [sarah\\_lamarr@blm.gov](mailto:sarah_lamarr@blm.gov).

Sincerely,



Scott Haight  
Field Manager

2 Enclosures:

- 1-Map of Proposed Treatment Units
- 2-Map of Proposed Roads to Access for Travel Management