



File Code: 1950

Date: January 25, 2008

Dear Forest User,

A wind event with recorded gusts over 100 miles per hour brought widespread damage to the Beartooth Front area on November 12, 2007. This wind created heavy concentrations of wind damaged and fallen trees on U.S. Forest Service (USFS) and adjacent State of Montana Department of Natural Resources (DNRC) lands in the West Fork Rock Creek and on USFS lands in the Main Fork Rock Creek and Benbow area. Concentrations of wind damaged and fallen trees in combination with fuels conditions that existed before the wind event have increased beetle infestation potential and created potentially hazardous fuel loads. The USFS and DNRC are seeking public collaboration and comment on the Beartooth Front Storm Damage Clean-up and Fuels Reduction project. This includes storm-damage clean-up and fuels reduction on 939 acres of USFS lands and 123 acres of DNRC lands in the West Fork Rock Creek; 237 acres of storm-damage clean-up and fuels reduction on USFS lands in the Main Fork Rock Creek; and 109 acres of storm-damage clean-up on USFS lands in the Benbow area. You are being contacted since you may potentially be interested in or affected by this project.

This project consists of proposals to improve public and firefighter safety, clean up areas of wind-damaged trees, improve defensible space around structures, and reduce fuel loading on USFS and DNRC lands in the West Fork Rock Creek and on USFS lands in the Main Fork Rock Creek and Little Rocky Creek drainages (Attached Map 1 – Vicinity Map). The West Fork Rock Creek area is approximately 2.5 miles southwest of Red Lodge, Montana. The Main Fork Rock Creek area is approximately 9.5 miles south-southwest of Red Lodge. The Benbow area is in the Little Rocky Creek drainage, approximately 35 miles northwest of Red Lodge and 3 miles west of Dean, Montana.

## **Purpose and Need**

The purpose of the Beartooth Front Storm Damage Clean-up and Fuels Reduction project is to improve firefighter and public safety by reducing fuel loads and fuel continuity in the project areas. The Beartooth District Ranger and DNRC Southern Land Office Area Manager have identified a need to improve public and firefighter safety in the West Fork Rock Creek drainage. The Beartooth District Ranger has identified a need to improve public and firefighter safety in the Main Fork Rock Creek and Little Rocky Creek drainages. These needs would be addressed by reducing fuel loads, creating fuel breaks, increasing defensible space around buildings, reducing beetle infestation potential, and constructing a West Fork safety zone. Fuel breaks and fuel reduction would also serve the purpose of improving overall defensible space around the communities of Red Lodge, Dean, and associated infrastructure on private and public lands.



## **Project background**

The November 2007 wind event resulted in heavy concentrations of trees blowing over or being damaged in the West Fork Rock Creek, Main Fork Rock Creek, and Benbow areas. When combined with fuel loads that existed before the storm, these trees form areas of down fuel that will readily carry fire.

### **Forest Vegetation and Fuel Loads**

Concentrations of wind damaged and fallen trees can increase bark-beetle infestation potential. Such concentrations can attract beetles from surrounding areas. Wind damaged and fallen trees serve as food sources and over-wintering habitat for several bark beetles, including mountain pine beetle, Douglas-fir beetle, and spruce beetle. When abundant host trees (such as fallen trees) are present, beetle populations increase and often exhaust that food supply and then inhabit and kill nearby live trees. These beetles kill live trees by breeding and laying eggs in the phloem (or vascular tissue) of trees, which conveys water and food to the tree. Recent aerial surveys mapped thousands of trees killed by bark beetles on the Beartooth District. 2003 and 2006 aerial surveys detected and mapped populations of mountain pine beetle infestation in the Little Rocky Creek, West Fork, and Main Fork drainages. If beetle infestations increase at and near wind-damaged areas, they could not only kill thousands of live trees, but also increase fire risk as the amount of fuel (or dead trees) increases.

Historically, lightning-caused fires reduced fuels on the Beartooth Ranger District. Computer modeling simulations indicate the Beartooth Front is characterized by high severity fires every 35 to 200 or more years. From 1870 to 1904, more than 138,000 acres of forest land burned on the Beartooth District, including the West Fork (See attached Photo 1).

Considerable growth of timber in the former fire area has occurred since the fires of the early 1900's (See attached Photo 2). Fire suppression and development of homes and cabins in the project areas have prevented wildfire from performing its natural role in fuels reduction. Forests in the project areas are primarily even-aged mature lodgepole pine. Lodgepole forests that survive more than about 100 years often become susceptible to and die from mountain pine beetle infestations. The resulting buildup of dead and dry fuels can invite a large stand-replacing wildland fire. There are also spruce, Douglas-fir, aspen, subalpine fir, and whitebark pine forests. In general, these forest types are also susceptible to beetle infestations and stand-replacement fires. Crown fires can readily spread into these forest types from adjacent lodgepole forests.

Since the 1940's, 70% of all fires on the Beartooth Ranger District have been human-caused and 43% of these fires were in the West and Main Forks of Rock Creek. Since 1949, 78% of all fires in the upper and lower portions of the West Fork drainage have been human caused. Most historic human-caused fires on the Beartooth District occur in drainage bottoms where recreational use is more frequent.

### **Climatic and terrain influences**

During dry periods, lightning started fires are a regular occurrence. Trees weakened by drought can also become more susceptible to insect infestations. For most of the past 10 years, summer precipitation has been below historic levels. Recent drought in Stillwater and Carbon Counties has significantly heightened risk of wildland fire along the Beartooth Front. Live fuel moistures over the past few years have been lower than normal on the Beartooth District. Live and dead forest fuel moistures on the District have been recorded since the 1970's and are used to calculate Energy Release Component (ERC) for wildland forest fires. Higher ERC values indicate higher potential wildland fire severity. In general, larger fires ( $\geq 1000$  acres) tend to be

associated with higher ERC values. Large fires can be quite expensive and dangerous. Over the past several years, peak summer ERC values have been exceeding historic high values on the Beartooth Ranger District. Strong wind events similar to the November 2007 wind event are common in Stillwater and Carbon Counties. Most of the West Fork, Main Fork, and Benbow areas are characterized by steep, forested, and wind-prone slopes. In addition to potential for storm damage to trees and increased fuels loads, there is rapid wildland fire growth potential. The Beartooth Mountains consist of large plateaus and steep, narrow drainages. Steep slopes affect fire ignition and spread by preheating the fuels upslope and enabling spotting to occur from rolling and aerial fire brands. Narrow drainages, including the Main Fork, West Fork, and Benbow, can funnel winds down slope from the plateaus and increase wind speeds. Flame length, rate of spread, and fire spotting generally increase with wind speed.

In the past 20 years, strong winds, topography and high ERC values have resulted in rapidly spreading high-intensity fires on Custer National Forest lands in Carbon and Stillwater Counties. Examples include the 2006 Derby fire (200,000 acres), the 2002 Red Waffle fire (2,000 acres) in 2002, the 2000 Willie Fire (1,503 acres), the 1996 Shepherd Mountain fire (14,890 acres), and the 1988 Storm Creek (56,856 acres) and Clover/Mist fires (387,400 acres).

### **Community Wildfire Protection Plans**

In 2001, Red Lodge was added to the Federal government's nationwide list of communities at high risk from wildfire in the vicinity of Federal lands. The 2005 Carbon County Community Wildfire Protection Plan and Pre-Disaster Mitigation Plan (CWPP/PDM) identified the West Fork Rock Creek and Main Fork Rock Creek areas as Wildland Urban Interface (WUI), which is defined as areas within or adjacent to a community that is at-risk due to wild fire potential. The CWPP/PDM states that "The most extreme situation with respect to fuel conditions and values at risk occurs south and west of Red Lodge where there are numerous high-value individual homes and subdivisions located in the wildland urban interface area in close proximity to the National Forest boundary." This includes the West Fork and Main Forks of Rock Creek. The Carbon County CWPP/PDM is available online at: <http://dma.mt.gov/DES/Counties/carbon/index.asp>.

Recent Forest Service fuels modeling based on current vegetative condition in the Main Fork Rock Creek concluded that under extreme fire conditions:

- During a 25 mph wind event, there would be an 81% probability of wildland fire ignition from a firebrand.
- If a fire gets into the crowns of trees, it could spread at nearly 2 miles per hour and start spot fires up to 0.4 miles in front of the main fire.
- With 40 mph winds, a fire could spread at nearly 3 mph, with spotting up to 0.7 miles.

The CWPP/PDM analyzed a catastrophic wildland fire scenario in the West Fork Rock Creek. The potential outcome of this scenario presented in the CWPP/PDM included:

- Potential loss of human life.
- Over 15,000 acres burned.
- Direct Cost loss estimates of over \$44 million dollars.
- Destruction of numerous assets, including 27 Recreation Residences in the West Fork, communications facilities at Grizzly Peak.
- Loss of economic viability of Red Lodge Mountain ski area and resultant major long-term impact to Carbon County's economy.

In addition to the CWPP/PDM scenario, a catastrophic wildland fire in the West Fork and Main Fork drainages could also increase runoff and sedimentation. This could potentially decrease water quality. The West Fork Rock Creek drainage is the designated municipal watershed for the City of Red Lodge. Drinking water for the

City of Red Lodge is pumped from a series of shallow wells with hydrologic connection to surface waters in the West Fork Rock Creek. Additionally, hundreds of privately owned groundwater wells used for drinking water and ditches and wells used for irrigation purposes are fed by water from the West Fork and Main Fork watersheds. Post-fire run-off and sediment could potentially affect water quality and quantity in shallow wells and irrigation ditches.

The 2007 Stillwater County Wildfire Protection Plan (CWPP) identified the Benbow area as WUI. The Stillwater CWPP is available online at: [http://www.stillwater.mt.gov/DES/Wildfire\\_Plan.asp](http://www.stillwater.mt.gov/DES/Wildfire_Plan.asp). Stillwater County's mitigation project ranking listed fuel reduction in high risk areas as a "High" priority. Goals of the Stillwater CWPP include maximizing protection of property from wildland fire in rural areas. Specific objectives of this CWPP is to "Pursue WUI fuel reduction projects in high-risk areas around the county" and to "Jointly develop a fuels reduction project for the major subdivision area (BLM, FS, RFD, private landowners)." The Benbow area is in a high-risk area near subdivided private lands and is therefore a high Stillwater County priority for fuels treatment.

A catastrophic wildland fire in the Benbow area could threaten nearby homes, structures, and agricultural operations on private lands and also spread into continuous stands timber on USFS lands along the Beartooth Front. Increased insect infestation in the Benbow area due to presence of storm-damaged trees could increase dead trees and the corresponding fire hazard.

### **Related storm clean-up and fuels reduction efforts**

The November 2007 wind event also affected recreation facilities across the Beartooth District, such as signs, picnic tables, trails, roads, and recreation residences damaged by falling trees. Some hazard tree removal and repairs at these facilities are being completed under separate efforts, with the intent being to complete these activities in summer 2008 so such facilities can be safely used by the public.

The Bureau of Land Management (BLM), Billings Field Office has proposed a total of 40 acres of mechanical treatment for storm damage clean-up, fuels reduction, and forest health improvement along the Benbow Road #2413 at the Custer NF boundary.

In recent years, the Beartooth Ranger District has completed several fuels reduction and projects along the Forest Boundary near the West Fork Rock Creek. Future fuel reduction planning efforts are also anticipated along the Beartooth Front near Nye and Dean. The Beartooth Front Storm Damage Clean-up and Fuels Reduction project would continue and/or complement these other related efforts.

### **2003 Healthy Forests Restoration Act**

The 2003 Healthy Forests Restoration Act (HFRA) established special procedures for Federal agencies conducting environmental analysis for authorized hazardous-fuel-reduction projects on specific types of Federal land (available online at: <http://www.fs.fed.us/biology/wildecology/HFRA.pdf>). Except the HFRA's authorization to analyze fewer alternatives under the National Environmental Policy Act (NEPA), most HFRA procedures are consistent with normal NEPA practices. The Beartooth Front Storm Damage Clean-up and Fuels Reduction project meets HFRA requirements. Specifically, these project areas were identified in the Stillwater and Carbon County CWPP/PDM's and classified as WUI. HFRA procedures do not apply to activities proposed on State of Montana lands.

## Custer National Forest Land and Resource Management Plan.

The 1986 Custer National Forest Land and Resource Management Plan (*Forest Plan*) Forest-wide Fuels Management standard specifies that "A combination of treatments will be used that will most efficiently meet the fuels management direction of each management area" (page 39). Activities in the Beartooth Front Storm Damage Clean-up and Fuels Reduction project are proposed in several *Forest Plan* Management Areas. Each Management Area (MA) has specific goals and standards defined in the Forest Plan. Activities in the West Fork Rock Creek are proposed in MA F, MA M, and MA R. Activities in the Main Fork Rock Creek are proposed in MA F, MA M, and MA T. Activities in the Benbow area are proposed in MA B, MA D, and MA M. Goals and standards for these MAs include:

- The MA B goal is to "Provide for continuation of livestock grazing..." (page 45). MA B standards include "Management activities may include removal of wood products..." and "Planned ignitions may be used for range and wildlife enhancement, fuels and debris reduction."
- The MA D goal is to "maintain or improve the long-term diversity and quality of habitat for the selected species as well as accommodating the other resource management activities..." (page 53). MA D standards include that "Planned ignitions may be used for range improvement and wildlife habitat, timber stand maintenance, fuels reduction, sanitation, maintaining vegetation, and associated wildlife habitat dependent on periodic fire."
- The MA F goal is "To provide a spectrum of recreation opportunities and settings in the and around developed sites and the access corridors to the sites..." (page 61). Applicable MA F recreation standards include: "Vegetation in developed sites will be managed to maintain the appropriate recreation setting, including planting new plant to supplement existing vegetation as well as preventative measures for insect and disease control when necessary." Timber and fuels standards include that "Harvest within developed recreation sites will normally be for removal of hazardous trees and protection of improvements" and "Planned ignitions may be used for slash and debris disposal, enhancement of visual quality and preventative measures to reduce wildfire intensity."
- Riparian areas are designated as MA M. The *Forest Plan* MA goal for riparian areas is to provide healthy, self-perpetuating plant and water communities that will have optimum diversity and density of under-story and over-story vegetation (pages 80-82). Management standards specify that in riparian areas, prescribed fire "may be used for debris cleanup" and that "Silvicultural prescriptions will be used along fishery streams to insure that an adequate number of trees will be available to maximize the continual, natural development of pools necessary to meet the need of the individual fishery involved."
- The MA R goal is "To protect and maintain high quality water for public domestic use" (page 91). MA R standards specify that "Timber management activities, such as thinning, regeneration cutting, and selection cutting to enhance or perpetuate existing watershed, recreation and visual values or provide for public safety are permitted. Cutting activities will be managed to assure high water quality is maintained." Other applicable MA R standards include that "Planned ignitions may be used for hazard reduction, debris and slash disposal and maintenance of diversity for watershed values."
- The MA T goal is "To provide facilities, information and interpretation to Forest visitors regarding the human and natural history of the landscape seen from the highway (212) corridor" (page 98). MA T standards specify that "Timber harvest of posts, poles, and firewood will be permitted as long as it maintains or enhances the visual resource" and "Planned ignitions may be used for debris disposal. Broadcast burning will not normally be used as a management tool."

For additional information and a complete listing of Goals, Standards, and Objectives, the *Forest Plan* is available online at: <http://www.fs.fed.us/r1/custer/projects/environmental/index>

# Proposed Activities

The Beartooth Front Storm Damage Clean-up and Fuels Reduction project consists of several specific proposals. It is important to note that none of these proposals are intended to nor can completely prevent wildfires in the West Fork, Main Fork, and Benbow/Little Rocky Creek areas. These are fire-dependent ecosystems comprised primarily of even-aged timber stands. Many of these stands are at an age when they would, under natural conditions, burn in a high severity stand-replacing wildfire. The project areas have few access roads to facilitate management activities, such as widespread prescribed burning. The lack of roads, tendency for high winds, and short burning condition windows can make fuels treatments using prescribed broadcast burning or wildland fire use very expensive and oftentimes not physically possible.

There will be additional human-caused and lightning-caused wildfires in the project area. Dependent upon weather and other conditions, wildfires in these areas could grow large and suppression may not be immediately possible. Rather than attempt to treat fuels across large landscapes, proposed activities are focused on treatments in specific and strategic areas where such treatments would likely be most effective at improving public and firefighter safety. Fuels reduction units are connected to existing fuel breaks, such as roads, talus slopes, and other openings in vegetation. This includes using a variety of treatments to create a 200 to 300 foot wide fuel break along Main Fork Road # 2421 and West Fork Road #2071. Given that a high percentage of recent fires in the area have been started due to human activities, fuels reduction is focused on the areas most used by the public, such as near roads and developed recreation facilities. When (not “if”) wildfires start in the project areas, proposed fuels treatments are designed to improve the ability of firefighting personnel to suppress wildfires, protect infrastructure, use existing roads as fire control lines, and increase effectiveness of aerial fire retardant use. Proposed fuels treatments are also designed to improve the ability of the public to safely leave the area.

Proposed activities by geographic area are detailed in Tables 1, 2, and 3. Numbered footnotes within these tables correspond to treatment types described below. Attached Maps 2, 3, and 4 show locations of proposed activities for the Benbow, West Fork, and Main Fork areas.

**Table 1. Benbow Clean-up & Fuels reduction units.**

Unit number	Unit acres	Proposed treatment types
1	54	Remove and salvage windfall and wind-damaged trees <sup>1</sup> .
2	30	Remove and salvage windfall and wind-damaged trees <sup>1</sup> .
3	25	Remove and salvage windfall and wind-damaged trees <sup>1</sup> .

Total proposed Benbow treatment acreage: 109 acres.

**Table 2. West Fork Rock Creek Clean-up & Fuels reduction units.**

Unit number	Unit acres	Proposed treatment types
4	8	Thin live trees <sup>2</sup> .
5	20	Commercial harvest <sup>3</sup> .
6	20	Remove and salvage windfall and wind-damaged trees <sup>1</sup> . Thin remaining live trees <sup>2</sup> .
7	92	Remove and salvage windfall and wind-damaged trees <sup>1</sup> . Thin remaining live trees <sup>2</sup> . <i>Apply Montana Fire Protection Guidelines for Wildland Residential Interface</i>

Unit number	Unit acres	Proposed treatment types
		<i>Development</i> at Camp Senia recreational residence building on south side of West Fork Rock Creek <sup>4</sup> .
8	2	Remove and salvage windfall and wind-damaged trees <sup>1</sup> . Thin remaining live trees <sup>2</sup> . <i>Apply Montana Fire Protection Guidelines for Wildland Residential Interface Development</i> to buildings at Porcupine Creek recreational residence tract <sup>4</sup> .
9	25	Remove and salvage windfall and wind-damaged trees <sup>1</sup> . Thin remaining live trees <sup>2</sup> . <i>Apply Montana Fire Protection Guidelines for Wildland Residential Interface Development</i> at recreational residence buildings <sup>4</sup> .
10	20	Remove and salvage windfall and wind-damaged trees at Camp Senia recreational residence tract <sup>1</sup> . Thin remaining live trees at Camp Senia recreational residence tract <sup>2</sup> . <i>Apply Montana Fire Protection Guidelines for Wildland Residential Interface Development</i> to Camp Senia buildings <sup>4</sup> .
11	11	Commercial harvest <sup>3</sup> .
12	27	Thin live trees <sup>2</sup> .
13	18	Commercial harvest <sup>3</sup> .
14	17	Pre-commercial thin <sup>5</sup> .
15	3	Thin live trees <sup>2</sup> .
16	72	Remove and salvage windfall and wind-damaged trees <sup>1</sup> . Thin remaining live trees <sup>2</sup> . <i>Apply Montana Fire Protection Guidelines for Wildland Residential Interface Development</i> at Cascade Creek recreational residence <sup>4</sup> .
17	14	Commercial harvest <sup>3</sup> .
18	17	Remove and salvage windfall and wind-damaged trees at Cascade Campground <sup>1</sup> . Thin remaining live trees at Cascade Campground <sup>2</sup> .
19	5	Commercial harvest <sup>3</sup> .
20	55	Thin live trees on DNRC land <sup>2</sup> .
21	10	Thin live trees <sup>2</sup> .
22	106	Commercial harvest <sup>3</sup> .
23	2	Thin live trees <sup>2</sup> .
24	3	Pre-commercial thin <sup>5</sup> .
25	1	Pre-commercial thin <sup>5</sup> .
26	2	Pre-commercial thin <sup>5</sup> .
27	26	Thin live trees <sup>2</sup> .
28	23	Commercial harvest <sup>3</sup> .
29	13	Remove and salvage windfall and wind-damaged trees at Basin Campground <sup>1</sup> . Thin removing live trees at Basin Campground <sup>2</sup> .
30	9	Thin live trees <sup>2</sup> .
31	77	Commercial harvest <sup>3</sup> . <i>Apply Montana Fire Protection Guidelines for Wildland Residential Interface Development</i> at Basin Creek recreational residence tract buildings <sup>4</sup> .
32	3	Pre-commercial thin <sup>5</sup> .
33	57	Thin live trees <sup>2</sup> .
34	15	Remove and salvage windfall and wind-damaged trees at Wild Bill Lake recreation site <sup>1</sup> .

Unit number	Unit acres	Proposed treatment types
		Thin remaining live trees at Wild Bill Lake recreation site <sup>2</sup> .
35	6	Remove and salvage windfall and wind-damaged trees at Wild Bill Lake recreation site <sup>1</sup> . Thin remaining live trees at Wild Bill Lake recreation site <sup>2</sup> .
36	62	Commercial harvest <sup>3</sup> . <i>Apply Montana Fire Protection Guidelines for Wildland Residential Interface Development</i> at Dutch Creek recreational residence tract and Timber Crest Girl Scout Camp <sup>4</sup> .
37	54	Commercial post and pole harvest <sup>6</sup> . Trees would be removed along Silver Run National Recreation Trail #102, Trail #102A, cross country ski trail loops, and Silver Run Road # 2006 to create a fuel break and accommodate future cross-country ski trail grooming.
38	18	Commercial harvest <sup>3</sup> .
39	51	Thin live trees <sup>2</sup> .
40	29	Commercial harvest <sup>3</sup> . Trees would be removed along Silver Run Road # 2006 to create a fuel break and accommodate future cross-country ski trail grooming.
49 & 50	3	Remove trees and other flammable materials from 2 acres of DNRC lands and 1 acre of USFS lands to create a safety zone where visitors and firefighting personnel could safely wait out a fire.  The safety zone would be closed to recreational use, such as parking or dispersed camping, and signs would be placed along West Fork Road # 2071 and at the safety zone indicating the intended use of the site. The safety zone would be maintained through future thinning to prevent ground fuels and brush from compromising future usability.
51	66	Remove and salvage windfall and wind-damaged trees on DNRC land <sup>1</sup> . Thin remaining live trees <sup>2</sup> .
52	3	Personal use permit post and pole harvest <sup>6</sup> .
53	5	Personal use permit post and pole harvest <sup>6</sup> .

**Table 3. Main Fork Rock Creek Clean-up & Fuels reduction units.**

Unit Number	Unit acres	Proposed treatment types
41	37	Remove and salvage windfall and wind-damaged trees along US Highway 212 <sup>1</sup> .
42	10	Remove and salvage windfall and wind-damaged trees <sup>1</sup> . Thin remaining live trees <sup>2</sup> .
43	33	Remove and salvage windfall and wind-damaged trees <sup>1</sup> . Thin remaining live trees <sup>2</sup> .
44	17	Remove and salvage windfall and wind-damaged trees in Parkside Campground <sup>1</sup> . Thin remaining live trees in Parkside Campground <sup>2</sup> .
45	40	Remove and salvage windfall and wind-damaged trees in Greenough Lake Campground and recreation site <sup>1</sup> . Thin remaining live trees in Greenough Lake Campground and recreation site <sup>2</sup> .
46	6	Remove and salvage windfall and wind-damaged trees <sup>1</sup> . Thin remaining live trees <sup>2</sup> .

Unit Number	Unit acres	Proposed treatment types
47	87	Remove and salvage windfall and wind-damaged trees <sup>1</sup> . Thin remaining live trees <sup>2</sup> .
48	8	Remove and salvage windfall and wind-damaged trees in MK Campground <sup>1</sup> . Thin remaining live trees in MK Campground <sup>2</sup> .

The following descriptions correspond to numbered end notes in the “Proposed treatment types” column in Tables 1, 2, and 3:

**Treatment 1:** Windfall and wind-damaged trees would be removed using ground-based commercial timber harvest equipment where such trees are concentrated or scattered. Equipment used could include skidders, low-angle cable-logging systems, feller bunchers, and/or forwarders. Due to variability in wind damage, topography, equipment operability considerations, and current road locations, this treatment would vary in each unit. Merchantable trees would be salvaged and sold as commercial timber. Remaining slash and non-merchantable down and damaged material would either be removed or piled and burned onsite.

**Treatment 2:** Trees would be thinned to create a shaded fuel break. After thinning, there would be an average 10 foot spacing between remaining individual tree crowns. Thinning would be accomplished by hand crews or using mechanized equipment. The majority of these areas contain non-merchantable size timber. Any cut merchantable trees could be sold as commercial timber. Remaining slash and non-merchantable down and damaged material would either be removed or piled and burned onsite.

**Treatment 3:** Ground based commercial timber harvest equipment, including skidders, feller bunchers, and forwarders, would reduce overall fuel loads by removing live and dead trees for sale as commercial timber. Approximately 80% of the commercial harvest areas would be thinned to retain overstory trees at an approximate 10 foot spacing between tree crowns. Spacing between retained trees would be increased in some areas to encourage tree regeneration from seed. Non-commercial products within commercial harvest areas, such as residual slash and fuels, would be piled and burned. In approximately 10% of the commercial harvest areas, a Liberation Cut to remove remaining tree overstory and liberate understory in previously harvested stands that have a fully stocked understory. Removal of the overstory would reduce potential for a crown fire and increase sunlight and nutrient availability for understory trees. A Regeneration Harvest prescription, where all overstory trees would be removed for growth of new trees, would be applied in less than 10% of the commercial harvest area.

**Treatment 4:** Trees and other fuels would be removed at and adjacent to buildings and other flammable infrastructure at these sites. The Montana Fire Protection Guidelines for Wildland Residential Interface Development would guide removal of trees and other fuels be applied at all lease cabin sites. The guidelines call for non-combustible material, such as gravel, concrete, or mineral soil in the first 3 feet around a building. Moving farther out in concentric rings, all trees and downed woody materials would be removed in the next ten feet. From 13 feet out to 30 feet, trees would be thinned to 10 feet between crowns; limbs would be pruned up to 15 feet or 1/3 the total live crown height, and surface vegetation would be maintained at 3 inches or less. All downed woody fuels would be removed. From 30 feet to 100 feet out from each building, trees would be thinned to 10 feet between crowns, limbs should be pruned to 15 feet or 1/3 total live crown height, and all woody fuels more that 3 inches in diameter should be removed. Because fire spreads quickly when moving uphill, distances for fuel reduction would be adjusted on the downslope side of buildings on slopes greater than 10%. Larger trees would be removed using logging equipment, such as feller bunchers and skidders, and sold as commercial timber. Smaller non-merchantable trees and other fuels would be either removed or piled and burned onsite.

**Treatment 5:** Tree saplings would be pre-commercially thinned to leave a 12 to 20 foot distance between remaining trees. This would both reduce fuel loads and increase tree health and vigor. Cut material would either be removed or piled and burned.

**Treatment 6:** Post and pole treatments would cut and remove trees less than 6”diameter to leave a mix of trees at 12 to 20 foot spacing between remaining trees. Remaining slash and down material would be piled and burned. Personal use units would be cut under permit by the public using chainsaws. Trees harvested under personal use permits would either be transporting material by hand or by using vehicles within 300 feet of existing roads. Commercial use units would be sold as part of a timber sale and be cut by hand and/or using small logging equipment for cutting and transport.

**Potential Issues and Design Features:**

Specific design features or mitigation measures to reduce environmental effects and/or address potential issues are included in this proposal. The NEPA and Montana Environmental Policy Act (MEPA) define mitigation to include: (a) avoiding impacts; (b) minimizing impacts by limiting the magnitude or degree; (c) rectifying the impact by repairing, rehabilitating, or restoring; and (d) reducing or eliminating impacts over time by preservation and maintenance operations during the life of the action. Table 4 lists potential mitigation measures included in this proposal to address potential issues.

**Table 4. Potential Issues and Design Features.**

Potential Issues	Potential design features or mitigation measures
Effects to recreational users.	Commercial fuels reduction and clean-up along main roads in the West Fork and Main Fork would occur during fall or winter months when public use is decreased. Operator would be required to reclaim or repair fuels reduction impacts to roads, trails, or routes. Wildfire evacuation routes and safety zones would be marked with signs. Trees would be removed along Silver Run National Recreation Trail #102 and #102A, cross country ski trail loops, and Silver Run Road # 2006 to accommodate future grooming for cross-country ski trails.
Effects to water quality.	Apply State of Montana Best Management Practices for Forestry (available online at <a href="http://dnrc.mt.gov/forestry/Assistance/Practices/Documents/2001WaterQualityBMPGuide.pdf">http://dnrc.mt.gov/forestry/Assistance/Practices/Documents/2001WaterQualityBMPGuide.pdf</a> ). Comply with State of Montana Streamside Management Zone requirements (available online at <a href="http://data.opi.state.mt.us/bills/mca_toc/77_5_3.htm">http://data.opi.state.mt.us/bills/mca_toc/77_5_3.htm</a> ). Fuel and equipment storage standards would be required. A spill containment and reporting plan would be required for mechanized equipment use. Site reclamation and monitoring at log-landings and burn pile locations would be required.
Effects to wildlife and sensitive plants.	Timing and operating restrictions would be applied to reduce or eliminate effects. Fuel reduction locations/operations would be identified and adjusted as needed. This could include application of site-specific snag and down woody debris retention standards.
Effects to archaeological resources.	Fuels reduction areas would be inventoried prior to any ground disturbance and locations/operations would be adjusted to ensure no impacts occur.
Effects to visual	Treatments would be varied in high-visibility areas, such as areas adjacent to roads, campgrounds and other recreation sites.

<b>Potential Issues</b>	<b>Potential design features or mitigation measures</b>
resources.	Feather edges of fuel reduction areas to meet partial retention requirements. Stumps would be flush cut in high visibility areas. Some isolated trees would be retained between and near lease cabins and campground campsites to provide screening, shade, and privacy. Regeneration harvest areas would be limited in size and/or distributed in small patches.
Effects to soil quality and site productivity.	Timber harvest equipment operation areas, such as corridors, skid trails, and log landings, would be located in a manner that minimizes disturbance and impact to the ground. Timber harvest equipment would be operated only when soils are dry, frozen, or covered with snow.
Noxious weed spread.	All project equipment would be washed and inspected of for noxious weed seed. Design fuels reduction units so as to minimize ground disturbance. Site reclamation and monitoring would occur, with appropriate follow-up treatment of any noxious weeds.
Provide forest products to local communities.	Burn piles would be made available to firewood, post and pole, and bough harvest. Some post pole harvest areas would be designated for personal use.

### ***Opportunities for Public Input***

To ensure that potential environmental effects resulting from these proposals are considered, analyzed and disclosed, public scoping required by NEPA and MEPA are is being completed as one effort. In accordance with NEPA and MEPA, public concerns about the project and potential environmental impacts will be considered and analyzed before decisions are made regarding project implementation.

This letter formally initiates the scoping period for the Beartooth Front Storm Damage Clean-up and Fuels Reduction project environmental analysis process. This request for comment and input is an attempt to collaboratively involve the public and other agencies in identifying concerns and issues associated with proposed activities.

The USFS and DNRC are interested in issues or concerns you may have with the Beartooth Front Storm Damage Clean-up and Fuels Reduction project. Comments should display points of dispute or debate relevant to proposed activities. Please list specific units or geographic areas where you have concerns. Issues identified from public comment may be used to change project design features and/or prescribe additional mitigations. Issues and concerns identified from scoping will also be utilized to determine the appropriate level of environmental analysis and documentation required by NEPA and MEPA.

Written, facsimile, hand-delivered, oral, and electronic comments will be accepted during the scoping comment period until February 25, 2008. Pursuant to NEPA, MEPA, HFRA, 36 CFR 215, and 36 CFR 218, this scoping period is an opportunity for public comment. Dependent upon the level of environmental analysis, individuals and organizations who submit specific written comment related to proposed hazardous fuel reduction projects during the scoping period may be eligible to file an objection to HFRA activities on USFS lands. Information about 36 CFR 218 predecisional administrative review procedures is available online at: [http://www.access.gpo.gov/nara/cfr/waisidx\\_07/36cfr218\\_07.html](http://www.access.gpo.gov/nara/cfr/waisidx_07/36cfr218_07.html). Dependent upon the level of environmental analysis, certain project decisions may be subject to appeal pursuant to 36 CFR 215. Pursuant to 36 CFR part 215 regulations, only those who provide timely and substantive comments requirements during the 30 day

comment period for this project would be eligible to appeal applicable decisions. Information about 36 CFR 215 notice, comment, and appeal procedures is available online at: [http://www.access.gpo.gov/nara/cfr/waisidx\\_07/36cfr215\\_07.html](http://www.access.gpo.gov/nara/cfr/waisidx_07/36cfr215_07.html). Under MEPA (which applies to activities on DRNC lands), there is no objection or administrative appeal process for activities on DNRC lands. Additional information regarding MEPA is available online at: <http://leg.mt.gov/content/publications/lepo/2004mepaguide.pdf>

The HFRA requires Federal agencies to provide notice of the project and conduct a public meeting when preparing authorized hazardous-fuel-reduction projects. MEPA requires State agencies to provide members of the public the opportunity to be involved in the environmental review process. Public collaboration and scoping meetings specific to this project will be held in Nye and Red Lodge. The meetings will consist of an approximately one-half hour informational presentation followed by an open-house opportunity for individuals to ask questions, discuss project concerns, and/or provide comment to agency representatives. All interested parties are encouraged to attend. The Nye meeting will be in conjunction with the BLM's scoping meeting for their wind damage clean-up proposal. This meeting will be at the Nye Volunteer Fire Department Fire Hall from 6 to 8 p.m. on January 30, 2008. The Red Lodge meeting will be at the Red Lodge/Roberts Senior Citizen's Center at 207 South Villard from 5:30 to 7:30 pm on February 6, 2008.

Please contact the Beartooth District if you would like to continue to receive information about the Beartooth Front Storm Damage Clean-up and Fuels Reduction project. Your name will be removed from the mailing list for this project if you do not provide comment or specifically request to remain on the list. You may submit written, hand-delivered, or oral comments. Office business hours for those submitting hand-delivered or oral comments are: 8:00 AM to 4:30 PM, Monday through Friday, excluding holidays. For further information, to provide comment, or to remain on the project mailing list, please contact:

Dan Seifert, Interdisciplinary Team Leader or  
Traute Parrie, District Ranger  
Beartooth Ranger District  
6811 US Highway 212 South  
Red Lodge, MT, 59068  
Phone: (406) 446-2103  
Fax: (406) 446-3918  
E-mail: [comments-northern-custer-beartooth@fs.fed.us](mailto:comments-northern-custer-beartooth@fs.fed.us)

If you choose to comment via e-mail, please include "Storm damage" in the e-mail subject line. Comments received in response to this solicitation, including names and addresses of those who comment, will be considered part of the public record and will be available for public inspection.

Please provide comment and/or input addressing these proposals by February 25, 2008.

Sincerely,



TRAUTE PARRIE  
District Ranger

Attachments