

**Forest Plan Amendment Number 45**  
**Site Specific Forest Plan Amendment for the Greater Red Lodge Vegetation**  
**and Habitat Management Project**

**Record of Decision – enclosed here**

**Beartooth Ranger District**  
**Custer National Forest**

The Record of Decision for the Greater Red Lodge Vegetation and Habitat Management Project and attendant FEIS site specifically amended the Forest Plan for the Custer National Forest when it was signed, and is hereby incorporated in its entirety.



United States  
Department of  
Agriculture

Forest  
Service

May 2015



## Record of Decision

# Greater Red Lodge Vegetation and Habitat Management Project

**Beartooth Ranger District, Custer Gallatin National Forest  
Carbon County, Montana**

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# 1. SUMMARY

This Record of Decision (ROD) documents my decision on the Greater Red Lodge Vegetation and Habitat Management Project (Greater Red Lodge Project) to select Alternative 3 Modified for the Red Lodge Creek (RLC) Project Area, and Alternative 2 Modified for the Willow-Nichols Creek (WNC) Project Area. This decision authorizes all vegetation and road management activities for these two project areas as described in this decision, the Final Environmental Impact Statement (FEIS), and project record with the exception of Nichols Creek Road. Reconstruction of Nichols Creek Road is being addressed as a separate stand-alone decision.

The Greater Red Lodge Project Area encompasses West Red Lodge Creek, Nichols Creek, and Willow Creek (near Palisades Campground). The project area includes roughly 21,871 acres (10,275 acres in Red Lodge Creek and 11,596 in Willow/Nichols Creek). The project area was identified as “Wildland Urban Interface or “WUI” in the Carbon County Community Wildfire Protection Plan (CWPP). Due to its location in the WUI and proximity to values at risk, wildfire suppression will continue in the project area.

National Forest System Lands in the project area were also designated in April 2014 as priority landscapes for insect and disease treatment by the Governor of the State of Montana under Section 602 of the Healthy Forest Restoration Act as amended by the Agriculture Act (Farm Bill) of 2014. Although designated, the Farm Bill authority was not utilized to complete planning for this project, as planning was nearing completion at the time of the designation.

The Project Area is generally accessible from existing public and National Forest System Roads and has been actively managed in the past. Since 1980, past vegetation management has included noncommercial aspen treatments, regeneration harvest, commercial and noncommercial thinning and prescribed fire. Approximately 336 acres of vegetation treatments occurred in the Red Lodge Creek Project Area, and 479 acres in Willow-Nichols Creek. Management actions were generally concentrated around the existing road network, and constitute less than four percent of the project area.

Historic landscape processes include periodic natural disturbance events such as fire, insect outbreaks, and windstorms. Recent examples of these natural disturbance events are the Shepard Mountain fire of 1996 (15,000 acres, destroyed 32 homes), Derby fire of 2006 (207,115 acres, 20 primary residences destroyed), Cascade fire of 2008 (10,000 acres, destroyed 4 residences and several outbuildings), Willie fire of 2000 (1,503 acres), Hole in the Wall Fire of 2011 (6,318 acres), Rock Creek Fire of 2013 (950 acres), and multiple large scale wind events that resulted in various degrees of blown down timber on an estimated 20,000 acres of Forest Service lands.

These same vegetative conditions exist in the Greater Red Lodge project area, and the existing condition presents a risk to public and firefighter safety, urban and rural development in the WUI, and other values such as recreation and clean water. On March 28, 2015, the West Fork Road Fire started on private lands along West Fork Rock Creek Road, adjacent to proposed fuels treatment units that are part of the Greater Red Lodge Project. Winds in excess of 70 mph quickly drove fire onto the National Forest and burned portions of Units 29f, 30f, 31f, 32f, and 37t (about 170 acres). Due to early spring weather and quick response by firefighters, the wildlife was contained at about 400 acres. It burned around numerous homes and filled the Town of Red Lodge with smoke.

Forested stands in the project area are comprised predominately of mature lodgepole pine with small inclusions of aspen, spruce, subalpine fir, and Douglas fir. The majority of the lodgepole pine is about 100 years old, and has or will soon reach a state where significant stand deterioration occurs as part of natural succession. The project is rated moderate to high hazard for mountain pine beetle.

Along the lower elevations of the Beartooth Front, grasslands have become increasingly colonized by conifers. Under historic disturbance cycles, limber pine and ponderosa pine existed in these areas as individual trees, clumps of individuals, or small stands. Open limber pine and ponderosa pine stands have aged, and are being replaced by Douglas-fir. Aspen is present in various sized patches through the project area. Fire suppression throughout the 1900s has enabled lodgepole pine and other conifers to out-compete aspen in the project area. Younger age classes of aspen occur in the Greater Red Lodge project area, but are less abundant. Older colonized stands and stands declining in health are more abundant than would be the case under historic fire regimes.

The Greater Red Lodge Project is proposed to respond to multiple use goals and objectives in the Forest Plan, as well as regional and national direction for restoration and resiliency and protection of values at risk in the WUI. The FEIS considered the effects of a No Action Alternative (Alternative 1) and three action alternatives. Action alternatives 2 – 4 include a combination of noncommercial and commercial vegetation and fuels treatment ranging from approximately 1000 acres to 2000 acres depending upon alternative. Commercial harvest (including a combination of thinning and clearcuts) would be accomplished via ground based logging systems and whole tree yarding during the summer under dry soil conditions, or in the winter on frozen ground or over snow. Noncommercial treatment would be completed mechanically or by hand, including a combination of thinning, regeneration, mastication, lopping and scattering, pile burning, and broadcast burning. All action alternatives require various levels of temporary road construction, road maintenance, road reconstruction, and road decommissioning. No road construction or maintenance would occur in Inventoried Roadless Areas.

Under the no action alternative, vegetation change would continue through natural succession, with increased surface fuel loads that would be more capable of supporting high intensity wildfires. Alternative 2 is the Proposed Action, and includes approximately 1990 acres of vegetation and fuels treatments with the 21,871 acre project area. Alternative 3 includes approximately 1,706 acres of vegetation and fuels treatments, and Alternative 4 includes about 1,054 acres of vegetation and fuels treatments. Alternatives 3 and 4 were developed in response to public comments and concerns about:

- the size and scale of the project in conjunction with the State of Montana Department of Natural Resources and Conservation Palisades Timber Sale (cumulative effects),
- potential negative effects to wildlife, in particular mature forest species, mule deer and Brewer's sparrow
- potential negative effects to recreation and scenery
- a myriad of issues in Nichols Creek including economics, water quality and cultural resources.

Alternative 3 addresses public concerns about visuals, wildlife, etc. to the extent that it still meets the purpose and need for action. Alternative 4 further reduces treatment, by about 1000 acres compared to the proposed action, to address public concerns, but does not fully meet the purpose and need. The Selected Action meets the purpose and need for action while adequately addressing public concerns.

The selected alternative is summarized below by project area (Red Lodge Creek / Willow-Nichols Creek).

## **RED LODGE CREEK PROJECT AREA: ALTERNATIVE 3 MODIFIED**

Total Acres Treated: 1132 acres

- 807 acres commercial
- 325 acres noncommercial

Treatment is located along Red Lodge Creek Loop Road #2141 and lands south of State of Montana Department of Natural Resources and Conservation (MT DNRC) lands. Vegetation treatments are a mix of commercial and noncommercial thinning, clearcuts ranging from one half acre to 36 acres in size, overstory removal, post and pole / teepee pole harvest, grassland and wet meadow restoration, slashing, mastication, lopping and scattering, and pile and broadcast burning. The Forest Service obtained an alternative practices waiver from the MT DNRC to complete wet meadow restoration (about 17 acres) and a limited amount of broadcast burning (no active lighting) within streamside management zones (about 10 acres). Four acres of small diameter lodgepole pine would be hand thinned with chainsaws in the Burnt Mountain Inventoried Roadless Area (IRA) along an existing road. This decision authorizes a site specific Forest Plan amendment to exempt specific treatments in the Red Lodge Creek Project Area from the “maintain and improve” standard for mature forest species to address effects at the treatment unit level with respect to the cumulative effect of the Greater Red Lodge Project and the MT DNRC Palisades Timber Sale.

Changes from Alt 3:

- Drop 10 acres around the NRCS snotel site.
- Relocate temporary road access to Unit 23t to the upland knob on the southwestern portion of the unit to avoid wetlands present on an existing stock driveway.
- Adds mitigation measure to deter illegal ATV traffic on the 21415 Road. A barrier will be placed on the 21415 road to effectively restrict unauthorized motorized use.
- To meet Partial Retention Visual Quality Objectives, adjusts the prescription in Units 16BT and 17T to retain 5 to 7 clumps of 3 to 6 Douglas-fir trees that are 3’ to 6” dbh.

## **WILLOW-NICHOLS CREEK PROJECT AREA: ALTERNATIVE 2 MODIFIED**

Total Acres Treated: 675 acres

- 244 acres commercial
- 431 acres noncommercial

Vegetation and fuels treatment is located along West Fork Road, Nichols Creek Road, and around Palisades Campground and Trail. Vegetation management is a combination of commercial and noncommercial thinning, clearcuts, post and pole/teepee pole harvest, grassland restoration, mastication, pile and broadcast burning, and slashing and lopping and scattering slash. This decision authorizes a 40- acre clearcut in the Nichols Creek area (37t) and about a 6 acre clearcut north of Palisades Campground (28t). Design criteria would restrict clearcuts within 100 feet of the Palisades Trail.

Changes from Alt 2

- Units 28f, 29f, 30f: broadcast burning dropped on 283 acres due to concerns about negative effects to mule deer winter range (a major interest species) and Brewer’s sparrow (MIS for

sagebrush). In lieu of burning, the treatments would reduce conifer colonization of grasslands by lopping and scattering.

- Unit 37T (thinning portion) was modified due to concerns about effects to moose winter range. Prescription was modified to retain 10-20 percent untreated reserves (about 5 acres) in one-half to one-third acre patches to provide moose cover.

## ROAD MANAGEMENT

This decision authorizes the road management activities summarized in this ROD and described in detail in the FEIS. Reconstruction of Nichols Creek Road is being addressed through a separate decision. Road management activities include a combination of:

- Road reconstruction (6 miles),
- Maintenance (6.3 miles),
- Decommissioning of excess system roads (3.9 miles),
- Temporary road construction with subsequent obliteration (6.7 miles),
- Designation of 1.3 miles of objective Maintenance Level (ML) 1 roads as Maintenance Level (ML) 2 roads during project implementation (would revert back to ML 1 post project), and
- Designation of about 1.5 miles of roads that are currently classified as not needed to objective Maintenance Level 1 or 2 for future management.

My decision is based on the analysis documented in the Greater Red Lodge Project FEIS, which incorporates response to comments received during the scoping comment period for the project as well as the 45-day comment period on the Draft EIS. The Greater Red Lodge Project EIS was prepared pursuant to the requirements of the National Environmental Policy Act (NEPA, 40CFR 1500-1508), the National Forest Management Act, and the 1986 Custer National Forest Management Plan as amended.

This ROD provides my decision, rationale for selecting the Alternative 3 modified for Red Lodge Creek and Alternative 2 modified for Willow-Nichols Creek, alternatives considered, and other findings required by law, regulation, or policy. As the responsible official, I am responsible for evaluating the effects of the project relative to the definition of significance established by the CEQ Regulations (40 CFR 1508.13).

## 2. PROJECT AREA

The Project Area encompasses West Red Lodge Creek, Nichols Creek, and Willow Creek (near Palisades Campground). Nichols Creek is part of the West Fork Municipal Watershed for the community of Red Lodge. See FEIS, Appendix A, Vicinity Map 1. The project area encompasses roughly 21,871 acres (10,275 acres in Red Lodge Creek and 11,596 in Nichols/Willow Creek), and may be considered a transition zone from Wilderness and inaccessible Roadless Areas to private lands. This area is a zone where social values and natural processes intersect, and has been identified in the Carbon County Community Wildfire Protection Plan (CWPP) as “Wildland Urban Interface” or “WUI.”

Primary access into West Red Lodge Creek is from Hwy 78 through Luther following Red Lodge Creek Road (Route #2141). Primary access to Nichols Creek/Willow Creek is from Hwy 212/West Fork Rock Creek Road (Route #2071) and Ski Run Road.

The project area is valued as a scenic backdrop for people living or recreating in and around the area and is accessible by vehicle for most of the year. It is a destination for winter and summer recreation. The area is important to Native Americans for historic cultural uses dependent on healthy and sustainable forest stands. Comments received from the public regarding the Greater Red Lodge project indicate a strong sense of place, or attachment to the area with high interest in maintaining recreational opportunities, clean water, wildlife habitat, and an assortment of views regarding vegetation management.

### **3. BACKGROUND INFORMATION**

#### **WHY ARE WE HERE?**

Historic landscape processes include periodic natural disturbance events such as fire, insect outbreaks, windstorms, and invasive species infestations. Recent examples of these natural disturbance events are the Shepard Mountain fire of 1996 (15,000 acres, destroyed 32 homes), Derby fire of 2006 (207,115 acres, 20 primary residences destroyed), Cascade fire of 2008 (10,000 acres, destroyed 4 residences and several outbuildings), Willie fire of 2000 (1,503 acres), Hole in the Wall Fire of 2011 (6,318 acres), Rock Creek Fire of 2013 (950 acres), and multiple large scale wind events that resulted in various degrees of blown down timber on an estimated 20,000 acres national forest system lands. These same vegetative conditions exist in the Greater Red Lodge project area. Future large stand-replacing, high intensity wildfires on the Beartooth Front are inevitable. The West Fork Road Fire started on March 28, 2015 and burned approximately 400 acres in the Willow-Nichols Creek project area, around homes, and immediately adjacent to and partially within proposed fuels treatment units. Current stand composition presents a risk to public and firefighter safety, urban and rural development in the wildland urban interface (WUI), and other values such as recreation and clean water.

#### **FOREST PLAN DIRECTION**

The Forest Service is mandated by law to achieve quality land management under the “sustainable multiple-use management concept” to meet the diverse needs of people while protecting the resource. This means advocating a conservation ethic in promoting the health, productivity, diversity, and beauty of forests and associated lands, and protecting and managing the national forests so that they best demonstrate the sustainable multiple-use management concept.

The Custer Forest Plan embodies the provisions of the National Forest Management Act (NFMA), its implementing regulations, and other guiding documents. The Forest Plan sets forth in detail the direction for managing the land and resources of the Custer National Forest, and identifies Management Areas (MAs) that provide direction for land management activities. Forest Service Manuals (FSM) and Handbooks (FSH) provide additional direction regarding land management. National and regional Forest Service policies also provide direction to guide management of the project area.

#### **ECOLOGICAL RESTORATION**

Over the last decade or more, Forest Service policy has evolved to stress the importance of ecological restoration as the driver of wildland and forest stewardship. Nationally, FSM 2020 provides foundational policy for using ecological restoration to manage national forest system lands in a

sustainable manner. The aim is to reestablish and retain ecological resilience of national forest system lands and associated resources to achieve sustainable management and provide a broad range of ecosystem services.

The Region One Integrated Restoration and Protection Strategy provides regional direction for the restoration and maintenance of high value watersheds in a properly functioning condition, restoration and maintenance of wildlife habitat including restoration of more resilient vegetative conditions, and protection of people, structures and community infra-structure in the wildland urban interface (WUI).

The Forest Service definition of ecological restoration is broad in scope. As stated in FSM 2020.2:

*The aim is to re-establish and retain ecological resilience of National Forest System lands and associated resources to achieve sustainable management and provide a broad range of ecosystem services. Healthy, resilient landscapes will have greater capacity to survive natural disturbances and large scale threats to sustainability, especially under changing and uncertain future environmental conditions, such as those driven by climate change and increasing human uses.*

Ecological resilience is normally defined as the capacity of a system to cope with stress and to bounce back when the stress diminishes. It is measured by the rate at which a system returns to equilibrium following disturbance. Stressed ecosystems are less resilient than unstressed ecosystems.

Inherent goals of Forest Service Restoration Policy include ecosystem health, ecosystem services, and sustainability. Ecosystem health, in addition to resilience, has two other major criteria: vigor and organization. **Vigor** is measured in terms of energy flow considering nutrient cycling and productivity. **Organization** refers to ecosystem complexity, which tends to increase with secondary succession in terms of number of species and the variety and intricacy of interactions. Stressed ecosystems typically display reduced species richness, fewer symbiotic relationships, and more opportunistic species.

Ecosystem services refer to functions that benefit the human community, such as detoxification of chemicals, water purification, production of game species, and reduced soil erosion. They include: (a) Provisioning Services –food, fresh water, fuel, and timber; (b) Regulating Services – climate, water, pollination, and disease regulation; (c) Supporting Services –soil formation and nutrient cycling; and (d) Cultural Services –educational, aesthetic, cultural heritage values, recreation, and tourism. Stress generally reduces both the quality and quantity of these services.

In the face of climate change and population pressures there has now developed a complex matrix of natural and anthropogenic disturbance within which management regimes must be superimposed to meet National Forest and National Policy objectives. Restoration of degraded lands means rebuilding functional ecosystems, but not necessarily restoring sites to resemble their original conditions in all aspects. Forest Service goals are less concerned with establishing historically functioning ecosystems and more concerned with establishing ecosystems that are resilient in the face of current and projected disturbance regimes.

## EXISTING CONDITION

Forested stands in the project area are comprised predominately of mature lodgepole pine with small inclusions of aspen, spruce, subalpine fir, and Douglas fir. The majority of the lodgepole pine is around 100 years old, and has or will soon reach a state where significant stand deterioration occurs as part of

natural succession. Based on stand exams, old growth forest, as defined by Green and others (2007), is not present in areas proposed for treatment. Spruce, subalpine fir and Douglas fir are regenerating and establishing underneath the lodgepole pine, creating multiple canopy layers. Douglas fir stands are localized on drier sites, tend to be heavily stocked (high trees per acre), and in some cases have dense understories. Spruce is present in localized wet areas. The vegetation pattern appears as a homogeneous cover type and size class broken up by small areas of past timber harvest, suppressed wildfires, wind damage, and endemic bark beetle activity.

As natural succession progresses without disturbance, forested stands are becoming increasingly susceptible to wind-driven, stand replacing wildfire events and insect/disease epidemics. Mountain pine beetle mortality over the past few years has been observed in clumps of two to six trees with occasional  $\frac{1}{4}$  to  $\frac{1}{2}$  acre patches of high mortality. The project area includes areas with multiple year mortality, including observed 2012-2013 beetle mortality. Current mountain pine beetle hazard is moderate to high. Dwarf mistletoe and gall rust is present in localized areas. Spruce budworm has been observed in Douglas-fir with light to heavy defoliation. Spruce beetle mortality has been impacting spruce in windthrow areas. Existing stand conditions are conducive to a move from endemic levels to epidemic levels of insect related mortality.

Along the lower elevations of the Beartooth Front, grasslands have become increasingly colonized by conifers. Under historic disturbance cycles, limber pine and ponderosa pine existed in these areas as individual trees, clumps of individuals, or small stands. The overall setting was grassland dominated with scattered conifers. Open limber pine and ponderosa pine stands have aged, and are being replaced by Douglas-fir. Mountain pine beetle mortality and blister rust have been observed in the limber pine. Mortality of limber pine is contributing to increasing surface fuels loads, and colonizing Douglas fir are changing stand structure by creating additional ladder fuels and increasing canopy closure. Overall, these grassland settings are more capable now of supporting high intensity wildfire.

The West Fork Road Fire started on March 28, 2015 on private lands, and high winds drove the fire onto the National Forest. The fire burned approximately 400 acres in the Willow-Nichols Creek project area in the West Fork watershed. Burn intensities were highly variable, ranging from unburned with spots to high intensity (See Table 1 below). The fire burned at lower elevations on the Beartooth Face in grassland/sagebrush habitat that had experienced conifer colonization and moved upslope and burned in forested stands comprised of Douglas-fir and lodgepole pine. Refer to the attached fire map (Exhibit A).

**Table 1: Treatment Units and Fire Intensity Burned in West Fork Road Fire**

Unit & RX	Fire Intensity				Total
	High	Low	Low/Moderate	Unburned with spots	
29F (NC)	1	19	36	0	56
30F (NC)	0	28	1	7	37
31F (NC)	2	9	0	40	51
32F (NC)	0	16	0	0	16
37T (CO)	3	7	0	0	10
<b>Total</b>	<b>6</b>	<b>79</b>	<b>37</b>	<b>47</b>	<b>170</b>

The Greater Red Lodge Project Area is located within the West Red Lodge Creek and West Fork Rock Creek watersheds. The West Fork Rock Creek watershed serves as municipal source of water for the City of Red Lodge. Nichols Creek Road in the West Fork watershed is highly entrenched and erosive, and contributes sediment to Nichols Creek. Potentially affected streams in the project area support populations of eastern brook trout (*Salvelinus fontinalis*), brown trout, (*Salmo trutta*) and rainbow trout, (*Oncorhynchus mykiss*). Yellowstone cutthroat trout (YCT) have been documented in the East Fork of West Red Lodge Creek in the past. No YCT were captured or observed during 2014 sampling of potentially affected project area streams, including East Fork West Red Lodge Creek. However, it is possible that YCT are present in low numbers and were therefore not detected. There were no fish detected in Nichols Creek. Riparian areas contain a mix of conifers and deciduous species such as cottonwood, aspen, alder, and willow. Absent disturbance, Engelmann spruce is colonizing wet meadows and riparian areas. Much of the remaining deciduous vegetation is remnant older size classes, and regeneration of deciduous species is lacking.

Aspen is present in various sized patches through the project area. However, aspen presence in the Beartooth Mountains has declined by approximately 50% throughout the 1900s. The decline has been attributed to altered fire regimes due to decades of fire suppression (Steed and Kearns 2010, Pierson 1990). Aspen reproduces predominantly by developing shoots from the root system after disturbance such as severe fire, cutting, or avalanches (Bartos 2001), and reduction in wildfires throughout the 1900s has enabled lodgepole pine and other conifers to out-compete aspen in the project area.

Aspen stands that are heavily colonized by conifers are at risk of disappearing from the landscape. Presence of few to no aspen seedlings suggests that root systems have lost viability to the extent that stands may die out. Where at least moderate regeneration is present in heavily conifer-colonized stands, potential for aspen seedlings to reach maturity is small due to shading by conifers, and competition for water and soil nutrients. Younger age classes of aspen occur in the Greater Red Lodge project area, but are less abundant. Older colonized stands and stands declining in health are more abundant than would be the case under historic fire regimes.

Risk of aspen stand loss in the Greater Red Lodge project area ranges from none to high. High risk stands are those where conifer crowns have overtopped the aspen, conifers comprise at least half the canopy, and regeneration is low (Aspen Delineation Project 2002). At least half of the aspen stands in the project area are in danger of loss. Stands with low to no risk are comprised of healthy mature trees and/or healthy, vigorous regeneration. In the Greater Red Lodge project area, low to no risk stands include 275 acres that were hand treated between 1990 and 2012.

The Beartooth Face provides habitat for numerous wildlife species including (but not limited to) moose, deer, elk, black bear, grizzly bear, northern goshawk, brown creeper, and great gray owl. The Beartooth Face is designated critical lynx habitat. Two active goshawk nest sites have been documented in the project area in mid-aged and mature habitat.

## DESIRED FUTURE CONDITION

### Reduce Wildfire Hazard in the Wildland Urban Interface – Resilient Vegetation

**Forest Vegetation:** The desired future condition is an increased pattern diversity, which will improve the ability of vegetation to respond to disturbances (greater capacity to cope with stress), and reduce fire hazard. Pattern diversity may include varying tree densities (number of trees per acre), size and age class diversity, species diversity, and created openings. Increased spacing between individual trees and creating openings between forested stands would decrease the likelihood of fire transitioning into tree crowns, and crown fire burning from one stand to the next. By creating greater age class diversity, the current trend towards increasing surface fuel loading as a result of a deteriorating even-age stands would be reduced. Greater stand heterogeneity would reduce the likelihood of high intensity wildfire in treated stands. Increased diversity may maintain or improve growth and vigor of treated stands, these areas may be less susceptible to insect and disease epidemics (endemic insect/disease levels will always be present and would not be eliminated), and allow for natural regeneration. The project area would include a mosaic of pure and mixed aspen stands, limber pine, grasslands, ponderosa pine, mature Douglas-fir stands, mature lodgepole stands, young lodgepole stands, mixed species stands, and riparian areas with deciduous and coniferous vegetation.

**Grasslands:** The desired future condition is characterized by grasslands that are more representative of historic conditions. Periodic natural wildfires would have traditionally created conditions of sparse conifer stocking in these settings. Desired future conditions include reducing overall conifer densities and managing for species that traditionally occupied those sites (ponderosa pine and limber pine). Promoting a light stocking of scattered individuals or small stands of trees is the desired conifer cover across these grasslands. Returning fire to these settings through prescribed burning would promote a light surface fuel loading.

### Aspen Enhancement

The desired future condition is aspen communities more representative of historic condition and extent. Aspen acreage along the Beartooth face has declined by approximately 50% since the early 1900's, due mainly to fire suppression (Pierson 1995). Desired future condition is to return to a higher acreage and extent of pure aspen and a reduction in the conifer component of mixed aspen/conifer communities compared to the current condition. Some conifer-colonized aspen communities are at high risk of loss from the landscape and would be regenerated to young aspen. Small patches of live larger-diameter aspen would remain in regenerated stands. Other communities would have the mature aspen retained and most or all conifers removed. Approximately one-third of such stands would not be treated. The end result would be a mix of pure aspen and mixed aspen/conifer stands ranging in age from young to mature, mixed stands containing various degrees of conifer colonization, and diverse size classes of aspen and conifers.

### Clean Water

The desired future condition is to maintain/improve water quality and meet State of Montana water quality standards. In the long term, erosion and sedimentation from the Forest road network would be reduced, and BMPs would be implemented to improve water quality.

## 4. PURPOSE AND NEED

The Greater Red Lodge Project is proposed to respond to goals and objectives in the Forest Plan and other regional and national direction described above. The purpose of proposed management actions includes:

### Reduce Hazardous Fuels

- Reduce high-intensity wildfire within the Wildland Urban Interface (WUI) as identified in the Carbon County Community Wildfire Fire Protection Plan.
- Provide for a safer environment for the public and firefighters should a wildfire occur within the proposed treatment areas.
- To provide wildfire managers more suppression options to confine future wildfires from spreading beyond national forest system (NFS) lands.

**Need:** The entire Greater Red Lodge Project area is located in wildland urban interface. As described in the Existing Condition section, the area is capable of supporting high intensity wildfires, and presents a risk to public and firefighter safety. There is a need to lower potential fire intensity, which will improve our ability to confine wildfires to National Forest Service Lands.

The need for fuels management is directly related to reducing fire hazard to those values at risk in the wildland urban interface, which may be considered a transition zone between the Absaroka-Beartooth Wilderness and urban areas. In this transition zone, social considerations play a large part in how vegetation is managed. Wildfires will continue to be suppressed due to the proximity to private lands, homes, ranches, and other infrastructure, and risk to public safety.

Fuel treatments that have been tested by wildfire on the Beartooth Ranger District have provided real and tangible benefits. For example, fuels treatments at Camp Senia Recreation Residence tract and Cascade Campground prior to the Cascade fire of 2008 were effective in altering fire behavior in treated areas. Fire behavior changed from high intensity, stand replacement in nature to lower intensity surface fire in both the Cascade Campground and Camp Senia areas, and much of the pre-burn overstory lodgepole stand is intact today.

Fire hazard can be reduced through strategic treatments that consist of thinning to increase crown spacing or clearcutting conifer stands to spatially breakup contiguous stands, reducing surface fuel loads by mechanical cleanup and/or prescribed fire, and maintaining grassland openings through mechanical treatment and broadcast burning.

Treatment is not proposed in the Absaroka Beartooth Wilderness and Roadless areas within and adjacent to the Greater Red Lodge Project Area, with the exception of one 4-acre noncommercial hand treatment in an Inventoried Roadless Area along an existing road, proposed under Alternative 3. Natural processes will continue to reign across the Beartooth Face; stand replacing wildfire, insect and disease epidemics, wind events, and flooding will continue to shape the larger landscape. Proposed management activities target small areas that have been determined to be critical to a fire suppression/fuels strategy for the communities of Luther and Red Lodge.

## Maintain / Improve Resiliency of Forest Vegetation and Grasslands

- Improve and/or maintain the general health, resiliency, and sustainability of forested stands and grasslands.
- Reduce the risk of epidemic insect and disease infestations within the project area.

**Need:** Less than four percent of the project area has had vegetation management since 1980, concentrated around the existing road network (about 815 acres total divided between Red Lodge Creek and Nichols/Willow Creek). Lack of large disturbance events and fire suppression has generally resulted in stand conditions of high numbers of trees per acre, limited size/age classes, and developing canopy layers within the project area. These conditions result in increased stress and the opportunity for epidemic beetle infestations and increased risk for high intensity wildfire. Grasslands are being colonized by conifers. Reduced diversity in the forested stands and loss of grasslands in the project area may result in systems less able to cope with large natural disturbance events.

There is a need to increase heterogeneity in the project area, which will improve ability of vegetation to respond to disturbance events. Forests are dynamic and ever changing biological systems that respond to disturbance events such as fire, wind storms, and insects and diseases, and continually grow, develop, mature, die, and start anew. Resiliency to disturbances may be improved by restoring grasslands, increasing the diversity of species (including aspen, limber pine and ponderosa pine), increasing age class diversity including regeneration of lodgepole pine and aspen, promoting large diameter Douglas-fir stands, and variable densities of vegetation to reduce susceptibility to insect and disease infestations. Properly timed silvicultural treatments may slow or accelerate the pace of natural succession and reduce susceptibility and vulnerability from large disturbance events including insect and disease epidemics. Increased landscape heterogeneity and pattern diversity may ameliorate the effects of such large scale disturbances.

## Enhance Aspen Habitat

- Provide for regeneration of aspen stands declining in health
- Stimulate growth in aspen communities declining in health and/or abundance
- Reduce conifer colonization in mixed aspen-conifer stands

**Need:** Aspen is extremely important to wildlife because it is often the only deciduous tree species within a large area of conifers and thus provides habitat for mammals, birds, and other wildlife that may otherwise be absent. Species that use or depend upon aspen communities include moose, elk, white-tailed deer, black bear, ruffed grouse, and migratory songbirds. Aspen is relatively rare in the Beartooth Mountains compared to coniferous trees and many aspen communities are either progressively converting to a dominance of lodgepole pine or Douglas fir, or are declining in health and/or abundance. Aspen is an early successional species that needs disturbance in order to persist over the long term. Without disturbance, heavily conifer-colonized and aging aspen stands will eventually die and be lost from the landscape. Wildfires were the predominant disturbance historically, but were suppressed throughout the 1900s. By the end of the 1900s, approximately half the acreage of aspen estimated to have occurred in the early part of that century was still present.

Fire suppression will continue within the Wildland Urban Interface (WUI). Continued fire suppression will result in continued conifer colonization and additional declines in health and/or abundance of aspen

stands, leading to further reduction of the deciduous tree component on the forested landscape. The result is gradual loss of wildlife habitat diversity and ultimately a reduction in habitat value. In addition, once an aspen stand has died out, its genetics are gone and the genetic diversity across the landscape is reduced. Restoration opportunities to increase diversity are available through treatments such as prescribed fire and mechanical treatment that would increase the acreage of healthy aspen communities, leading to increased vegetation diversity, a potential rise in wildlife abundance, and reduced loss of aspen genetic diversity.

## Improve Water Quality

- Reduce sediment delivery to Nichols Creek, thereby improving water quality and aquatic habitat in the West Fork Municipal Watershed
- Decommission roads identified in the 2008 Beartooth Travel Plan as “system roads, not needed”
- Perform maintenance and reconstruction of existing system roads to reduce sources of sediment

**Need:** Nichols Creek Road is designated in the Travel Plan as a Maintenance Level 2 road, open to administrative use and public non-motorized uses. It is a popular hiking area. The road has been poorly maintained and is contributing sediment to Nichols Creek, which is part of Red Lodge’s municipal watershed. Additionally, proposed timber management in the vicinity would require reconstruction of the road prior to using it for log haul. The Forest has identified Nichols Creek as a potential trailhead in the future that could connect to Red Lodge Mountain ski area. Portions of the road are too steep for log hauling and the grade is not desirable for a trail route. The Forest is considering options to correct water quality problems, reroute portions of the road to reduce grade, and accommodate future recreation needs.

Road decommissioning and maintenance/reconstruction of existing roads would further reduce sources of sediment and improve water quality. Road decommissioning- through removal of traffic, ripping the roadbed (where feasible), and revegetation of the road bed- removes a chronic source of fine sediment from the landscape. Road maintenance and reconstruction will inevitably be accompanied by a short-term increase in sediment but will result in a long-term decrease in annual sediment yield and delivery.

## 5. PUBLIC INVOLVEMENT

36 CFR 220.4 requires scoping on all proposed actions. Scoping consisted of both internal and external efforts to identify important issues, concerns, and analysis needs related to the Greater Red Lodge Project. Among other things, the scoping process is used to invite public participation, to help identify public issues, and to obtain public comment during the EIS process. The Greater Red Lodge Project has been listed on the Custer National Forest (CNF) Schedule of Proposed Actions since February 2013.

The Beartooth District provided information to the public and asked for comments in 2012 and 2013, and provided numerous opportunities for public input as the proposed action and alternatives were developed. In 2012, the District scoped a preliminary purpose/need and general proposed action (i.e. unit boundaries identified, but treatments not assigned). As a result, the purpose and need was refined and clarified, and comments were considered as the proposed action was developed.

In 2013, the District scoped a detailed purpose and need and proposed action, and received about 36 comments. As alternatives to the proposed action were developed, the District held additional field trips and reviewed draft alternatives with the public to provide information, discuss issues of concern, provide an opportunity for the public to interact with resource specialists, and provide an additional opportunity for people to provide comments on the alternatives before they were finalized. Throughout this process, the district also met with local government and interest groups to share information. These efforts are bulleted below.

**2012**

- June 14, 2012 - Pre-Scoping Letter with preliminary purpose and need and general proposed action mailed to over 300 individuals/groups/agencies
- June 15, 2012 - Press release
- June 21, 2012 – Press release printed in Carbon County News (CCN)
- June 28, 2012 - Public meeting in Red Lodge
- June 28, 2012 – Public field trip in Red Lodge Creek
- June 25, 2012 – Met with Billings Gazette
- June 25, 2012 – Met with Carbon County News
- November 29, 2012 – Met with Carbon County Resource Council

**2013**

- February 22, 2013 – Detailed Scoping Letter mailed to over 230 individuals/groups/agencies
- February 27, 2013 – Met with private landowner in Missoula (Black, Dokken)
- February 28, 2013 – Press Release
- March 7, 2013 – Met with Rotary Club
- March 14, 2013 – Met with Carbon County Commissioners
- March 14, 2013 – Public meeting in Red Lodge
- March 18, 2013 – Met with Luther residents
- March 19, 2013 – Met with Greater Yellowstone Coalition
- March 26, 2013 – Met with Red Lodge City Council
- March 29, 2013 – District Ranger Letter to the Editor in Carbon County News
- April 26, 2013 – District Ranger letter to editor in Carbon County News
- June 6, 2013 – Public field trip – Nichols/Willow Creek
- June 18, 2013: Press Release for field trip
- June 25, 2013: Press Release for field trip
- June 28, 2013 – Public field trip – Red Lodge Creek

There was a high degree of public interest in the Greater Red Lodge Project, which generated quite a bit of media coverage, both positive and negative. Media coverage included news coverage, information about meetings and field trips, and included numerous letters to the editor and a public opinion poll. Media coverage was published in the Carbon County News and Billings Gazette on the dates identified below. Articles are available in the project record.

- March 1, 2012: Carbon County News
- March 15, 2012: Carbon County News
- July 3, 2012: Carbon County News
- March 21, 2013: Carbon County News

- March 29, 2013: Carbon County News
- March 30, 2013: Billings Gazette
- April 4, 2013: Carbon County News
- April 11, 2013: Carbon County News
- June 10, 2013: Billings Gazette
- June 13, 2013: Carbon County News
- June 18, 2013: Billings Gazette
- June 23, 2013: Beartooth Recreational Trails Association (Barnard/Dykema) walking tour of DNRC Palisades project and Greater Red Lodge Project (not a USFS event)
- June 27, 2013: Carbon County News

After release of the Draft Environmental Impact Statement (DEIS) in April 2014, the Forest Service held an informational meeting to provide information and answer questions about the analysis, met individually with a member of the public who was unable to make the information meeting. The Forest Service also met with State of Montana Fish, Wildlife and Parks to discuss the project and address concerns. These efforts are bulleted below:

#### **2014**

- May 5, 2014 - Met with private landowner in Missoula (Dokken)
- May 13, 2014 - Informational meeting in Red Lodge
- April 2, 2014 - Met with MT Fish, Wildlife & Parks
- August 6, 2014 – Discuss project with MT Fish, Wildlife & Parks

## **6. ISSUES**

The Interdisciplinary Team (ID Team) reviewed and compiled a list of potential issues based upon internal review and discussion, and from comments from the public, organizations, and government agencies during project scoping. These issues were then evaluated against the following criteria to determine the appropriate method for resolution:

- Is the issue relevant to and within the scope of the Purpose and Need, the decisions beings made, and does it pertain directly to the Proposed Action?
- Is the issue already decided by law, regulation, or existing plans? Is it supported by scientific or factual evidence?
- Could the issue be resolved through design and location of activities in the Proposed Action or mitigated by avoiding the impact of not taking action, minimizing the impact by limiting the action, rectifying the impact by rehabilitation, reducing the impact by maintenance, or compensating for the impact by replacement or some other mitigation?
- Issues representing an unresolved conflict with the Proposed Action may be considered a “significant” issue that drove alternatives to the proposed action.

Significant issues that led to development of alternatives to the proposed action are described below. Additional issues of concern that did not drive alternative development were considered in the FEIS as analysis issues.

Non-significant issues were not carried forward for analysis in the EIS, and included those items that were:

1. Outside the scope of the proposed action;
2. Already decided by law, regulation, Forest Plan, or other higher level decision;
3. Irrelevant to the decision to be made; or
4. Conjectural and not supported by scientific or factual evidence.

The Council on Environmental Quality (CEQ) NEPA regulations explain this delineation in Sec. 1501.7, "...identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)..."

## **SIGNIFICANT ISSUES DRIVING ALTERNATIVE DEVELOPMENT**

### **Size and Scale of Project (Cumulative Effects)**

Numerous comments noted concerns about the size and scale of project, considering the cumulative effect of the nearby MT DNRC Palisades Timber sale. These concerns led to the development of Alternative 3 and 4, both of which:

- Reduce acres treated
- Reduce miles of temporary road construction

Additionally, the District was able to reduce the amount of temporary road needed for Alternative 2 (proposed action) by rerouting a temporary road into two units (8T, 23F).

### **Wildlife Habitat for Mature Forest Species**

Numerous comments noted concerns that the project may negatively affect goshawk and great gray owls. The Northern Goshawk is designated in the Custer Forest Plan as the Habitat Indicator Species (Management Indicator Species; MIS) for old growth habitat. A MIS is one "whose population changes are believed to indicate effects of management on other species of a major biological community..." (U.S. Forest Service 1986). As such, habitat conditions that are suitable for goshawk are considered to be suitable for other bird species dependent upon mature forest. The Custer Forest Plan standard directs the Forest to provide for the maintenance and improvement of habitats for MIS.

Goshawks on the Beartooth District are nesting in mid-aged to mature lodgepole pine or Douglas-fir stands with an open understory. Old growth forest, as defined by Green and others (2007), occurs only in small isolated patches in the project area, and is not present in stands proposed for treatment. While goshawks typically nest in mature forests with closed canopy and open understories, post fledging family areas (pfa) and foraging areas may include mature forest, as well as a mix of other forest and non-forest components (Brewer et al 2009). Two active goshawk nests have been documented in the project area.

A desired future condition in the project area includes a mosaic of habitat types including pure and mixed aspen stands, limber pine, grasslands, ponderosa pine, mature Douglas-fir stands, mature lodgepole stands, young lodgepole stands, mixed species stands, and riparian areas with deciduous and coniferous vegetation.

Concerns about habitat for mature forest species led to the development of Alternative 3 and 4, which:

- Reduce amount of proposed treatment in goshawk post-fledgling areas
- Reduce the amount of treatment in areas where local residents reported goshawk and great gray owl observations
- Add areas of no treatment to provide untreated “skips” between treated areas for wildlife movement.

The effects analysis considers the effects of the proposed action and alternatives on mature forest species, focusing on goshawk as the MIS.

## Visuals

Several comments noted concerns that treatment would negatively impact scenic views. These comments generally related to concerns related to the views people have from their residence or cabin, or views seen when walking the main West Red Lodge Loop 2141 road and adjacent national forest. These concerns will be addressed through project design, but were also addressed in Alternative 3 and 4, which:

- Modify or drop treatment in sensitive visual places
- Reduce the size of a proposed clearcuts visible from 2141 road.

## Recreation

Several comments noted concerns that treatment would diminish recreational experiences in the West Red Lodge Creek area. There was a specific request to avoid the 21415 road for log haul, with an expressed desire to maintain the recreational trail nature of the existing route. Other comments were concerned that treatment would negatively impact the sense of solitude currently experienced when walking West Red Lodge Creek and adjacent national forest. While the Interdisciplinary Team felt that the No Action Alternative (Alternative 1) already addresses some of these concerns, concerns about impacts to recreational experiences were addressed through design and mitigation measures (see Chapter 2), as well as Alternative 4, which:

- Minimizes use of the 21415 for log haul, and proposes alternate access to several units on the 21411 road instead.

## Nichols Creek (Water Quality / Economics / Cultural Resources)

Public comment was generally supportive about abating water quality problems at Nichols Creek, but there were concerns expressed about how water quality could be improved while at the same conducting timber management including clearcuts along Nichols Creek Road. Internally, the Forest Service noted that the cost to repair Nichols Creek Road may be extremely high and that vegetation treatments in the vicinity could help offset some of the road work. Vegetation treatment could also satisfy a demand for teepee poles from Native Americans. Additionally, the presence or suspected presence of historic/cultural resources may restrict or place additional mitigations on road reconstruction. Concerns over these myriad of issues led to proposing different treatment between action alternatives in order to fully evaluate and weigh the tradeoffs for what is proposed.

- Under Alternative 2, vegetation treatment is proposed up Nichols Creek. Nichols Creek Road would require major reconstruction to accommodate log haul and collection of teepee poles.
- Under Alternatives 3 and 4, vegetation treatment is dropped, and Nichols Creek Road would be reconstructed to abate water quality problems but not accommodate log haul or collection of teepee poles. The amount of reconstruction would be less than what is required under Alternative 2.

## 7. DESCRIPTION OF ALTERNATIVES

The FEIS considered the effects of four alternatives: Alternative 1 (No Action), Alternative 2 (Proposed Action and Preferred Alternative for the Willow-Nichols Creek Project Area), Alternative 3 (Preferred for the Red Lodge Creek Project Area), and Alternative 4. These alternatives are described below.

Additionally, the FEIS and this ROD summarize alternatives that were considered, but not in detail. Based on public comments on the DEIS, the Forest Service added a description of an additional alternative that was considered, but not studied in detail, which would have been to remove all units that have weeds either adjacent to or within proposed treatment units.

### ALTERNATIVE 1 - NO ACTION

This alternative represents the existing condition in the Greater Red Lodge Project Area. Under this alternative, none of the activities proposed for the Greater Red Lodge Project would occur. No fuels reduction or forest health treatments, temporary road construction, road decommissioning, reconstruction of Nichols Creek Road, other activities associated with the Proposed Action would occur at this time. Ongoing activities, such as recreation, public firewood gathering, fire suppression, and normal road maintenance would continue. Activities identified in Chapter 3 as current and foreseeable future actions would occur.

No treatment does not mean that the forest will stay the same as it is now. Forests are dynamic ever-changing biological systems that experience and respond to catastrophic events such as fire, wind storms, and insects and disease, and continually grow, develop, mature, die, and start anew. As forest succession proceeds, aspen stands, open meadows, and riparian areas will continue to be colonized by conifers. In the absence of wildfire or vegetation treatments, the diversity of forest vegetation and stand structure in the project area will likely become more homogenous, with increases in understory ladder fuels.

Under any of the Greater Red Lodge Project alternatives, vegetation change will continue. As existing stands age or deteriorate as part of natural succession, increased susceptibility to insect attacks, disease, windthrow, or competition mortality will occur. Stands will continue to experience increasing surface fuel loads and, when combined with already tight crown spacing, will be more capable of supporting high intensity wildfires. Under the no action alternative, no treatment would occur in the wildland urban interface. Predicted fire behavior under typical large fire development conditions could hamper effective wildfire suppression operations during initial attack. Access and egress for firefighting and emergency equipment and personnel, as well as residents and visitors become difficult under this scenario. Furthermore, high intensity fire behavior due to existing vegetation conditions in the wildland

urban interface could limit suppression options, increasing the threat to nearby values at risk both on and off national forest lands.

## ACTION ALTERNATIVES

### Vegetation and Fuels Management

As disclosed in the FEIS, the action alternatives include a variety of vegetation and fuels treatments including regeneration harvest methods (those that establish a new age class), intermediate treatment methods (those that enhance growth, quality, vigor, and composition of a stand), prescribed fire (including pile and broadcast burning), and other noncommercial mechanical or hand treatments such as hand cutting/slashing small trees, mastication, and lopping and scattering slash. Detailed information about each of the treatment types is provided in the FEIS, Chapter 2, Table 2.5 and Appendix C.

The desired future condition of stands treated by regeneration harvest is openings that provide age class diversity and provide for natural regeneration of lodgepole pine and aspen. None of the openings would exceed 40 acres. The desired future condition of stands treated with an intermediate treatment includes stand structure and age class diversity that results in an overall reduced fire hazard, and varying tree densities (number of trees per acre), size and age class diversity, and species diversity to maintain or improve stand and tree vigor, and reduce susceptibility to insect and disease epidemics. Treated areas would include a mosaic of pure and mixed aspen stands, limber pine, grasslands, ponderosa pine, mature Douglas-fir stands, mature lodgepole stands, mixed species stands, and riparian areas with deciduous and coniferous vegetation.

Fuels treatments can be stand-alone non-commercial activities or used in combination with silvicultural treatments, and are designed to reduce fuel hazard, reduce conifer colonization, and/or enhance the success of natural regeneration. Fuels treatments include hand and mechanical methods (including mastication) and/or the use of prescribed fire. Broadcast burn objectives and fuel profiles are described in the FEIS, Chapter 2, Tables 2.2 and 2.3.

#### *Coarse Woody Debris Retention*

Post treatment for all treatment types, coarse woody debris would remain scattered on the ground to maintain soil productivity and provide wildlife habitat. Post treatment fuel loading objectives are detailed in Table 2 below. For units directly bordering private lands, tonnages would be at the low end of the specified ranges.

**Table 2: Post Treatment Desired Fuel Loading (tons/acre)**

Treatment Type	Fuels Size Class 0-3" <sup>1</sup>	Fuels Size Class 3-12"	Sum T/A Max	Max Fuelbed Depth	Fuel Model Equivalent	Reference Fischer Fuels Photo Series <sup>2</sup>
Clearcuts	≤4	8-12	16	≤18"	8 or t11	LP-45A, DF-42A
All other	≤4	5-8	12	≤18"	8 or t11	LP-1, LP-25A, DF-14A, PP-64

<sup>1</sup>Tonnages will be weighted towards the larger diameters in this size range.

<sup>2</sup>Citations for the Fischer Fuels Photo Series are as follows:

- Fischer, W.C. 1981. Photo Guide for Appraising Down Woody Fuels in Montana Forests: Lodgepole Pine, and Engelmann Spruce-Subalpine Fir Cover Types. USDA Forest Service, Intermountain Forest and Range Experiment Station, General Technical Report INT-98.
- Fischer, W.C. 1981. Photo Guide for Appraising Down Woody Fuels in Montana Forests: Interior Ponderosa Pine, Ponderosa Pine-Larch-Douglas-Fir, Larch-Douglas-Fir, and Interior Douglas-Fir Cover Types. USDA Forest Service, Intermountain Forest and Range Experiment Station, General Technical Report INT-97.

### ***Riparian Treatment***

A limited amount of riparian harvest is proposed in riparian corridors that are located adjacent to perennial or intermittent streams that flow through treatment units. The amount of riparian treatment is small (approximately 66 acres for Alternative 2, 56 acres for Alternative 3, and 27 acres for Alternative 4). Unless an Alternative Practices Waiver is obtained, proposed treatment prescriptions would be modified to meet MT Streamside Management Zone (SMZ) guidelines for timber harvest in riparian areas, which restrict equipment operations and specify tree retention requirements.

The Forest Service applied for and received an Alternative Practices Waiver from the MT Department of Natural Resources and Conservation (MT DNRC) to deviate from tree retention requirements to restore wet meadows in Units 5f, 6f, 9f, and 22f and to allow limited broadcast burning in Unit 23t. The wet meadow restoration prescription specifically targets removal of all conifers less than 8" dbh, and would thin conifers greater than 8" dbh to two trees per acre. Broadcast burning in the SMZ in Unit 23t would be avoided (no active lighting unless necessary for control measures to cleanup fuel pockets). Fire would be allowed to creep into the SMZ and self-extinguish or be mopped up when convenient. On August 13, 2014, MT DNRC approved the Alternative Practices Waiver.

### ***Proposed Commercial Treatment***

Proposed treatment by alternative is displayed on maps in Appendix A of the FEIS. The information below summarizes the different types of commercial treatment proposed by each alternative. Commercial units are broken down by treatment unit and alternative in Table 2.10 of the FEIS.

Commercial treatments are designated by a code in tables and maps throughout this ROD and FEIS. These treatments and code are described in Chapter 2, Table 2.5 and Appendix C of the FEIS, and briefly summarized below.

- **Aspen Regeneration (AE Regen):** Stand-alone treatment. An even-aged regeneration or harvest method that removes all trees in the stand producing a fully exposed microclimate for the development of a new age class in one entry. Felling, bucking and lopping of residual small trees post harvesting will be done to enhance establishment of natural regeneration. The treatment is intended to stimulate and promote expansion of the aspen community.
- **Aspen Enhancement (AE):** Aspen enhancement that occurs within other treatments, not a stand-alone treatment (for example: CT-AE). Where aspen is present, aspen may be regenerated, conifers surrounding the aspen may be thinned, or the aspen may not be treated based on risk of losing the aspen stand and condition of the clone. The range of treatments will provide for pure aspen stands and mixed aspen-conifer stands of various age classes.

Treatments will vary by aspen stand depending upon the following risk of stand loss: **1) High Risk:** A small-patch clearcut that removes all aspen and conifers within 1 ½ conifer tree lengths of aspen stand edge. Where available, at least 5 healthy aspen  $\geq 4$ " dbh will be retained in each stand. **2) Moderate Risk:** Thinning where one third of aspen stands will have all conifers removed from within the stand and within 1 ½ conifer tree lengths of stand edge; one third of aspen stands will have all except 5-10% of conifers removed and retained conifers will represent all sizes available within the stand; and one third of stands will not be treated. **3) Low Risk:** No treatment will occur.

- **Clearcut (CC):** An even-aged regeneration or harvest method that removes all trees in the stand producing a fully exposed microclimate for the development of a new age class in one entry. Felling, bucking and lopping of residual small trees post harvesting will be done to enhance establishment of natural regeneration. Clearcuts are prescribed for lodgepole pine. Where aspen is present in the stand, it will also be regenerated to stimulate and promote expansion of the community.
- **Clearcut with Reserves (CCR):** An even-aged regeneration or harvest method that removes most trees in the stand producing an exposed microclimate for the development of a new age class in one entry. A minor large Douglas-fir component will be retained for purposes of mixed conifer species and for a visual buffer along Road 2141. Felling, bucking and lopping of residual small trees post harvesting will be done to enhance establishment of natural regeneration.
- **Commercial Thin (CT or CT-AE):** Commercial thinning from below (removal of trees from lower crown classes) to reduce stand density. Includes basal area BA reduction in lodgepole pine to  $\leq 60$  square feet/ac, in Douglas fir 60 square feet /ac., and in ponderosa pine  $\leq 60$  square feet/ac. If there is an understory, treatment may also include noncommercial thinning to leave vigorous growing, undamaged, insect and disease free sub merchantable sized trees to a 10 to 20' crown spacing to reduce ladder fuels. Where aspen is present, treatment includes Aspen Enhancement according to the AE prescription above.
- **Group Shelterwood (GSH):** Harvest approximately 40 to 60 percent of unit area removing all trees in corridors around unharvested patches throughout the unit. Unharvested patches generally .5 to 5 acres in size. Harvested corridors will resemble clearcuts. GSH is prescribed for lodgepole pine. Where aspen is present in the treated corridors, it will also be regenerated to stimulate and promote expansion of the community.
- **Improvement Cut (IMP-AE):** A commercial harvest which removes overstory lodgepole pine trees, primarily to promote the continued development of understory components of Douglas fir, subalpine fir, spruce, and aspen. The understory will be thinned to achieve desired 10-15 ft crown spacing to meet fuels objectives. The end result will be a mosaic of small patches of mixed species conifers/aspen and open areas. Where aspen is present, treatment includes Aspen Enhancement according to the AE prescription above.
- **Post & Pole (PP):** Thinning from below (removal of trees from lower crown classes) to reduce stand density to a 10 to 15' crown spacing. Provide products to local community.

- **Sanitation Salvage (SS):** Removal of about ¼ to ½ of the lodgepole pine overstory that is dead and dying from mountain pine beetle. Remove individual dead and dying spruce trees that have been infested by spruce beetle. Promote continued stand development of Douglas-fir, spruce, and lodgepole.
- **Small Patch Clearcut (PC):** A type of stand clearcutting where patches are clearcut within an individual stand boundary to produce an even-aged patch. Small patches will generally be 1 to 3 acres on approximately 1/3 of unit. Except for Unit 36T near the Palisades Campground the patch size will generally be ½ to 1 acre in size. Felling, bucking and lopping of residual small trees post harvesting will be done to enhance establishment of natural regeneration. Small patch clearcuts are prescribed for lodgepole pine. Where aspen is present in the stand, it will also be regenerated to stimulate and promote expansion of the community.

Table 3 below summarizes acres treated by prescription for both RLC and WNC project areas.

**Table 3: Commercial Treatment - Acres Treated by Prescription<sup>1</sup>**

Prescription <sup>5</sup>	Code	Type of Treatment	Alt 2	Alt 3	Alt 3 Mod	Alt 4
Aspen Enhancement	AE regen	Regeneration	205	16	16	16
Clearcut with Aspen Enhancement	CC-AE <sup>2</sup>	Regeneration	154	207	207	170
Clearcut with Reserves	CCR	Regeneration	9	9	9	9
Commercial Thin	CT	Intermediate	440	363	360	357
Group Shelterwood with Aspen Enhancement <sup>3</sup>	GSH-AE	Regeneration	185	130	130	28
GSH Treated Acres			93	65	65	14
GSH No Treat Leave Patches			92	65	65	14
Improvement Cut	IMP	Intermediate	49	54	54	32
Post & Pole	PP	Intermediate	59	38	38	38
Sanitation Salvage	SS	Intermediate	1	1	1	1
Small Patch Clearcut with Aspen Enhancement <sup>4</sup>	PC-AE	Regeneration	109	109	109	19
PC Treated Acres			36	36	36	6
PC No Treat Leave Patches			73	73	73	13
<b>Total</b>			<b>1211</b>	<b>927</b>	<b>924</b>	<b>670</b>
<b>Revised total treatment taking out No Treat Leave Patches on GSH and PC</b>			<b>1046</b>	<b>789</b>	<b>786</b>	<b>643</b>

1 Note Combination Cuts (CO) were broken down into component parts. Approximately ten acres of the combo cuts are noncommercial treatments, and those acres are accounted for in Table 2.9 below.

2. CC, CT, GSH, and PC may all include various aspen treatments. See design criteria and Table 2.4.

3. GSH Prescription regenerates 40 to 60% of the unit, with the remainder of the unit left untreated. Treated acres are calculated at 50% in the table to show treated GSH acres at 93 acres for Alt 2, 65 acres for Alt 3, and 14 acres for Alt 4.

4. PC creates small patch regeneration openings on about one third of the unit, with the remainder of the unit left untreated. Treated acres are calculated at 33% of the total to show treated PC acres at 36 acres for Alt 2 and 3, and 6 acres for Alt 4.

5. Refer to the FEIS, Chapter 2, Table 2.5 for a description of each of the prescriptions and Appendix C for detailed silvicultural information.

### ***Volume from Commercial Harvest***

Table 4 below identifies the approximate volume in hundred cubic feet (CCF) of harvested timber that could be sold under contract for each action alternative. In the event that a commercial timber product is not marketable, use of mechanical treatments and prescribed fire would proceed where appropriate and as allocated funding allows.

**Table 4: Approximate Commercial Volume by Alternatives**

	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>
<b>Volume in CCF</b>	<b>16,556</b>	<b>12,968</b>	<b>9,520</b>

### ***Proposed Noncommercial Treatment***

Proposed treatment by alternative is displayed on maps in the FEIS, Appendix A. Table 2.8 below summarizes the different types of noncommercial treatment proposed by each alternative. Non-commercial units are broken down by treatment unit and alternative in Table 2.11 of the FEIS.

Non-commercial treatments are designated by a code in tables and maps throughout this ROD and FEIS. These treatments and code are described in Chapter 2, Table 2.5 and Appendix C of the FEIS, and briefly summarized below.

- **Broadcast Burning (BB):** Prescribed burning activity where fire is applied to the majority or all of an area within well-defined boundaries for reduction of fuel hazard (natural fuels, activity fuels), or reduce conifer colonization, or to enhance the success of natural regeneration or all. The end result may include a mosaic of burned and unburned areas. Includes hand or mechanical fireline construction – a control line that is scraped or dug into mineral soil.
- **Pile Burning (PB):** Hand or machine piling of fuels. Burning of piled material including hand and machine piles. May be used in combination with other types of burning.
- **Lop and Scatter (LS):** Any rearranging of fuels such as limbs, tops, or brush to reduce fuel bed depth or speed up decomposition. Generally applied in low fuel loading situations.
- **Slashing:** Reducing colonizing conifers in grassland / shrubland settings to obtain desired tree stocking (5 to 15% conifer cover) and reduce fuel bed in preparation for prescribed burning.
- **Mastication (MAST):** Mechanically treating trees and/or downed woody debris by grinding them into various sized small pieces (1-3") and dispersing them onto the ground. Can be used as sole fuels reduction technique or as preparation for broadcast burning.
- **Non Commercial (NC or NC-AE):** The cutting of trees (hand or mechanical) to 1) increase tree spacing, 2) regenerate a new age class or 3) remove colonizing conifers. Thinning in lodgepole pine will average 10 to 15' crown spacing, and 10 to 20' for Douglas fir and ponderosa pine. NC may also include slashing. Where aspen is present, treatment includes Aspen Enhancement according to the AE prescription above.

Table 5 below summarizes acres treated by prescription for both RLC and WNC project areas.

**Table 5: Noncommercial Treatment Acres by Prescription**

Prescription	Code	Type of Treatment	Hand/Mechanical	Alt 2	Alt 2 Mod	Alt 3	Alt 4
Non-Commercial, Pile Burning, Hand Treatment	NC-PB	Intermediate	Hand	100	100	98	100
Non-Commercial, Broadcast Burning, Hand Treatment	NC-BB	Intermediate	Hand	66	0	66	0
Non-Commercial, Pile Burning, Mechanical Treatment	NC-PB	Intermediate	Mech	60	54	60	39
Non-Commercial, Broadcast Burning, Mechanical Treatment	NC-BB	Intermediate	Mech	488	271	494	191
Non-Commercial, Aspen Enhancement, Pile Burning, Mechanical Treatment	NC-AE-PB	Intermediate	Mech	38	38	45	38
Non-Commercial Regeneration, Pile Burning, Mechanical Treatment	NC Regen - PB	Regeneration	Mech	16	16	16	16
Non-Commercial Regeneration, Broadcast Burning, Mechanical	NC Regen - BB	Regeneration	Mech	11	11	0	0
Non-Commercial Lop & Scatter, hand/mechanical scattering of slash; No burning (Units 28f, 29f, 30F)	NC - LS	Intermediate	Mech	0	283	0	0
<b>Total</b>				<b>779</b>	<b>773</b>	<b>779</b>	<b>384</b>

## Roads Management

Road management is proposed to improve water quality (purpose #4 of project), and to facilitate the vegetation and fuels treatments that are proposed to meet the other three purposes of the project. Temporary road construction, road maintenance, road reconstruction, and temporary road easements across private and MT DNRC lands are required to complete ground based commercial timber harvest under the action alternatives. All roads used to facilitate commercial operations including equipment transport, log hauling, and access would receive either reconstruction, pre-haul maintenance, haul maintenance, post-haul maintenance, or a combination thereof. A culvert that acts as a barrier to aquatic species movement would be replaced with an aquatic organism passage (AOP) culvert on the 2141 Red Lodge Creek Road just to the south of the Eaton property. The amount of temporary road construction, road maintenance, and easements is summarized in Table 6 below. Road management activities are detailed by road segment and alternative in the FEIS, Chapter 2, Table 2.14 and Appendix E.

**Table 6: Summary of Proposed Road Management/Use**

Roads / Trails	Alternative 2 Miles <sup>1</sup>	Alternative 3 Miles	Alternative 4 Miles
Temporary Road Construction/Obliteration	7.4	6.7	5
Existing Road – Maintenance	6.3	6.3	6.3
Existing Road – Reconstruction	6	6	6
Existing Road – Decommission	3.9	3.9	4.3
ML1 roads converted to ML 2 during timber sale, then returned to ML 1 post treatment	1.3	1.3	1.3
Roads currently classified as “system not needed” converted to ML 1 or 2 Roads <sup>3</sup>	1.5	1.5	1.1

Roads / Trails	Alternative 2 Miles <sup>1</sup>	Alternative 3 Miles	Alternative 4 Miles
<b>Easements</b>			
Private Road Easement	1.1	1.1	1.1
MT DNRC – existing motorized trail	8.2	8.2	8.2
Total	9.3	9.3	9.3

1. All miles listed are approximate.
2. System not needed roads proposed changed to ML2 for project implementation and future management includes routes: 21419 (.39 mile under Alt 2, 3), 21415B (.33 mile under Alt 2, 3, 4), 21413 (.42 mile under Alt 2,3,4), and 2010B (.38 mile under Alt 2,3,4)

### ***Temporary Road Construction***

The Greater Red Lodge Project would require treatment areas to be accessed by temporary roads. The proposed road construction would allow temporary access to proposed treatment areas through existing road templates and new temporary roads. Temporary roads would be constructed to the minimum standards necessary for log hauling on National Forest System (NFS) roads. Temporary road surface width would be limited to what is needed for log haul and would be reclaimed following their use using drain dips, outsloping, scarifying, seeding, and/or re- contouring.

Temporary roads would be closed and obliterated after management activities are completed. Closure of temporary roads and obliteration would occur using a variety of methods such as scarifying/ripping in a random pattern (not just parallel to the roadbed), restoring to contour if a cut-slope exists, scattering of debris (where available), seeding (with native vegetation), signing, obstructing with boulders, stumps, or logs, and re-seeding disturbed areas with a noxious-weed free native seed mix appropriate for site conditions. Signing needs would be addressed as rehabilitation activities are completed. Please refer to Appendix A of the FEIS, Maps 2, 3, 4, 5, 6, 7, 8, 9, and 10 for an approximate location of proposed temporary roads under each alternative.

Several public comments asked for clarification on whether temporary roads would be truly obliterated, as many of them are providing access to intermediate treatments and there could be a need for future management. I did not want to add new system roads to the landscape, or permanently increase road density to implement the Greater Red Lodge Project. All temporary roads will be closed and effectively rehabilitated so that they cease to exist. Any future management would require construction of new temporary roads.

### ***Road Maintenance (Best Management Practices - BMPs)***

The objectives of road maintenance are to minimize the concentration of sub-surface and surface water runoff, minimize road surface erosion, filter ditch water before entering streams, and decrease the risk of culvert failures during peak runoff events. Maintenance work could include dust abatement, clearing roadway vegetation, seeding, slide removal and slump repair, culvert installation, replacement of existing culverts with larger culverts, installation of drainage dips and water bars, placement of rip-rap to armor drainage structures, aggregate surface replacement, aggregate placement to reinforce wet surface areas, ditch cleaning, and surface blading to restore drainage efficiency of the road surface. These actions would bring the roads being used to implement the Greater Red Lodge Project up to current BMP Standards and provide benefits to the streams in the project area. Best Management Practices are required under timber sale contracts prior to hauling of timber over these roads.

### ***Road Reconstruction***

Road reconstruction may include widening roads, reconstructing existing turnouts, constructing new turnouts, road realignments to reduce road gradient, avoiding wet areas, road realignments to protect heritage resources, installing road drainage features, and surfacing to accommodate project implementation while protecting forest resources. Road re-alignment activities may include incidental vegetation and tree removal. Short road segments or road junctions abandoned due to realignments would be rehabilitated and seeded with a native seed mix.

Reconstruction of the Red Lodge Loop Road #2141 will include construction of approximately 23- 26 turnouts, reconstruction of the corner above Black's pond for safety, and replacement of one fish passage barrier culvert south of the Eaton property with an Aquatic Organism Passage (AOP) culvert to provide for aquatic organism passage. The intervisible turnouts that will be constructed on the Red Lodge Creek Loop Road (#2141) have been staked so that the public may view their locations. The corner above Black's pond will be widened to accommodate the turning radius of a log truck and incorporate a turnout. All road work will occur on National Forest System Roads or within public right-of-way in coordination with Carbon County and adjacent landowners. Red Lodge Loop Road will remain an objective Maintenance Level 3 Road with intervisible turnouts, and the design speed of the road will not change.

Additionally, the intersection of Road 2010A, a short segment on Road 21419, and Road 21415 will be reconstructed. The 21415 Road will be reconstructed to reach Unit 9t; it will not be reconstructed to the Forest Service boundary with state lands as part of implementing the Greater Red Lodge Project. A barrier will be placed on the 21415 road to effectively restrict unauthorized motorized use.

### ***Road Decommissioning***

Road decommissioning is defined as activities that result in the stabilization and restoration of unneeded roads to a more natural state (36 CFR 212.1), (FSM 7703). Decommissioning removes roads from the landscape that are no longer needed for current or future resource management or which pose a threat to water quality or wildlife security, and would restore natural drainage patterns.

The Greater Red Lodge project area includes 5.4 miles of existing road segments that were recommended for decommissioning in the Beartooth Travel Management decision (2008). They are currently classified as *System Not Needed* Roads and closed to public motorized use. The Interdisciplinary (ID) Team reviewed these routes and determined that about 4 miles could be decommissioned, and that 1 to 1.5 miles are needed for future management activities. Road decommissioning that would occur as part of the Greater Red Lodge Project includes:

- Alternative 2 and 3 - approximately **3.9** miles
- Alternative 4 - approximately **4.3** miles

The methods used to decommission roads will be based on site conditions and will be designed for minimal new ground disturbance whenever possible. It is anticipated that passive treatment will be used to decommission the majority of the roads in question (no ground disturbing work), as the roads in question have already re-vegetated. The road template may remain intact. Active treatment may be used on a limited basis if there is a need to address a resource concern. Active treatment may include total re-contouring that would restore the road template to the natural hill slope, partial re-contouring to fill ditches or remove unstable road shoulders, removing culverts and other drainage structures,

ripping the roadbed to reduce compaction, installing water bars, out-sloping the road prism, seeding and fertilizing disturbed soil, and blocking the road entrance and abandoning the road to allow re-vegetation. Road decommissioning would reduce road densities within the West Red Lodge Creek and West Fork watersheds, thereby reducing the risk of cumulative watershed effects over the long-term.

### ***Road Classification Changes***

As discussed above, the ID team reviewed *system not needed* roads and determined that approximately 1 to 1.5 miles may be needed for future management. The classification of the following roads would be changed from “*system not needed*” to objective Maintenance Level 1 or 2. They would be retained on the landscape for future administrative use, but would be closed to public motorized use.

- **Routes 21419** (.39 mile under Alt 2 and 3, but not Alt 4). This road is located along the south side of the Eaton Property, and is needed to access Units 20T and 24T under Alternatives 2 and 3. The adjacent landowner expressed a comment that they would like to use the 21419 route to maintain a fence line between the National Forest boundary and private lands.
  - Alt 2 and 3 would designate the 21419 as a ML 2 route for future management of the national forest and would accommodate the adjacent landowner’s request to maintain the fence line.
  - Alt 4 drops vegetation treatments along the 21419 and would decommission the route.
- **Route 21415B** (.33 mile under Alt 2, 3, 4). This road is located off the 21415 road, and is a light two-track route through a meadow that leads to Unit 10T. Portions of this route are needed under all action alternatives, and would be retained for future management as a ML 1 Road.
- **Route 21413** (.42 mile under Alt 2,3, 4). This road is located in the interior of the Red Lodge Loop Road (# 2141) on the east side of the Loop. This route is needed to access multiple units under all action alternatives, and would be retained for future management as a ML 1 Road.
- **Route 2010B** (.38 mile under Alt 2, 3, 4). This road is located in the vicinity of Palisades Campground near the private land boundary. It is needed to access Units 27AT, 27T, and 28T, and would be retained for future management as a ML 1 Road.

### ***Temporary Easements***

Under all action alternatives, vegetation management is proposed on national forest system (NFS) lands south of state lands managed by MT DNRC lands in Sections 15 – 18, Township 7 South, Range 19 East, PMM, MT. Access to the NFS land is either from the 21415 Road or across private and state lands. Public comment was generally not supportive of using the 21415 for log hauling. In order to reduce the length of road reconstruction on the 21415 Road for the Greater Red Lodge Project, and reduce logging traffic utilizing the 21415 Road, the Forest Service obtained easements from Ellis Cattle Company to complete management activities and haul timber across private lands. The easement across private land is strictly for administrative use, and does not provide public access to NFS lands. The Forest Service continues to coordinate access needs with the MT DNRC.

## **ALTERNATIVES NOT STUDIED IN DETAIL**

Federal agencies are required by NEPA to rigorously explore and objectively evaluate any reasonable alternatives that also meet the purpose and need and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Public comments received in response

to the Proposed Action provided suggestions for alternative methods for achieving the purpose and need. A number of alternatives were considered, but dismissed from detailed consideration for reasons explained below.

## **Roadless Area Treatment**

Ground reconnaissance during the summer of 2012 of proposed fuels treatments in the inventoried roadless area above Red Lodge Creek resulted in three units being dropped from the Greater Red Lodge project. These treatments consisted of two additional thinning units and one prescribed burn unit totaling 392 acres. The objective of these treatments in the roadless area was to create a break in the continuous forest canopy fuels along the Beartooth Face that would provide increased containment options in the event of a wildfire. These proposed treatments were dropped due to obstacles that could not be mitigated relating to the successful implementation of the proposed prescribed burn. These obstacles included; the amount of work and cost associated with preparing sufficient containment lines, the presence of terrain features that could compromise prescribed burn containment, the likelihood of drier fuel conditions (and associated containment problems) that would exist in stands adjacent to the proposed prescribed burn due to aspect, and the lack of sufficient safety zones for ground personnel.

Without being able to implement the proposed prescribed burn, treating just the two proposed thinning units did not meet the objective of creating a fuel break since the treatments would not be tied into fire resistant barriers or other proposed treatments in the Greater Red Lodge project area. Although these treatments were dropped from this project, specific on the ground conditions of future planning projects may warrant other landscape fuel treatments in roadless areas along the Beartooth Face.

## **Noncommercial Only Treatment**

The Forest Service considered an alternative that excluded commercial treatment. However a noncommercial only alternative does not meet the purpose and need for several reasons. The primary driver of this project is to mitigate the negative consequences of wildfire to values at risk. The entire project is located in the wildland urban interface. From a fuels perspective, many stands need to be either thinned or regenerated to reduce fire hazard, which would be difficult to accomplish noncommercially. Many of the stands proposed for fuels treatment contain considerable densities of large diameter trees. Sheer size, weight, and quantities of generated slash makes hand treatment impractical at any relevant scale that would meet the purpose and need for our project areas. When trees are thinned or regenerated, slash has to be treated to avoid creating a significant fire hazard in the treatment units. Much efficiency is gained by mechanically removing excess small diameter slash and tree boles from the site. Leaving them on the ground moves the fuels from the crown to the ground surface. A commercial component provides an economical means to dispose of trees that are cut and need to be removed. Commercial harvest is a tool to accomplish these objectives. Noncommercial treatment would also exclude post & pole / teepee pole opportunities, and the public has indicated there is a need for these products. Lastly, without capturing some of the economic value from removal of the commercial wood products to offset the necessary investment work, it is infeasible to assume that we could secure appropriated funds to accomplish the stated objectives.

## Palisades Units

Four units totaling 237 acres on the northeast end of the project area that were previously considered were dropped due to concerns about visual impacts. There was a possibility that these units would have been very visible to residents on the West Bench and west of there, as well as to people driving into Red Lodge from the north on Highway 212, no matter what treatment type was proposed. There was a concern that road access to the proposed units would need to be upgraded, leaving visible road cuts in the same view as the ski area above.

The Forest Service is trying to balance achieving the purpose and need of the project with consideration for the expressed concerns of the public. Therefore, treatments that may have a higher visual impact from sensitive viewing areas were dropped from the proposed action.

## Riparian Treatment

As originally scoped, the proposed action included approximately 150 acres of standalone riparian treatment and about 66 acres of riparian treatment within other proposed treatment units.

Riparian treatments were proposed under the same premise as upland treatments. That is, fire suppression has resulted in conifer colonization, loss of vigor, and increased fuel loading in mixed deciduous-coniferous stands. Treatments were proposed to check conifer proliferation which in turn would promote maintenance of water quality and thermal cover, streambank stability, and aquatic habitat if wildfire were to burn through the project area.

Desired future condition (DFC) for proposed riparian stands was to have a mix of conifer and deciduous vegetation that was more representative of historic conditions prior to fire suppression. At this time, we still do not fully understand what that range of natural variability is, therefore we Forest Service felt it was premature to carry forward a purpose and need to restore riparian areas. Therefore, the 150 acres of standalone riparian treatment were dropped from all action alternatives. Riparian areas that are embedded within other treatment units will still be treated for whatever the prescription calls for, but will be modified to comply with MT Streamside Management Zone restrictions (i.e. a lighter treatment) unless an alternative practices waiver is granted by MT DNRC.

## No Treatment in Units with Noxious Weeds on Roads within Units

This alternative was requested during the comment period for the DEIS. This alternative would remove all units that have weeds either adjacent to or within proposed treatment units. Based on the data presented in Chapter 3, Noxious Weeds, the alternative would include 20 units (#37AT, 37BT, 37T, 30AF, 26AT, 26BT, 26T, 20T, 24T, 18T, 11T, 18F, 19F, 16T, 20F, 10T, 23F, 8T, 22FR, and 9T). Treating only these units would result in only treating 432 acres in Alternative 2 and 246 acres in Alternative 3, and 102 acres in Alternative 4. This is not enough treatment to meet the objective for the project, which is to reduce the fire intensity level and hazard risk to fire fighter and other people using the evacuation route. Since this alternative would not meet the purpose and need it was dismissed from detailed evaluation. Concerns related to risk of noxious weeds, and a description of Forest Service noxious weed treatments that are being incorporated into the Greater Red Lodge Project are disclosed in Chapter 3 and Appendix F.

## 8. DECISION

As the Responsible Official for the Custer Gallatin National Forest, I have decided to implement Alternative 3 Modified in the Red Lodge Creek (RLC) Project Area and Alternative 2 Modified in the Willow-Nichols Creek (WNC) Project Area. This decision authorizes approximately 1132 acres of fuels and vegetation treatments in Red Lodge Creek (807 acres commercial, 325 acres non-commercial), and 675 acres of fuels-vegetation treatments in Willow-Nichols Creek (244 acres commercial, 431 acres noncommercial).

This modified alternative will include all of the design/mitigation measures and monitoring described in this ROD and FEIS. Additionally, Water Quality, Soils and Weeds Best Management Practices (BMPs) described in Appendix, C, D, and F of the FEIS are incorporated into this decision and will be implemented for the Greater Red Lodge Project.

This decision authorizes all of the road management activities summarized in this ROD and described in detail in the FEIS. Reconstruction of Nichols Creek Road is being addressed through a separate decision.

### Red Lodge Creek – Alternative 3 Modified

Compared to Alternative 3, Alternative 3 Modified drops about 10 acres of treatment around a Natural Resource Conservation Service (NRCS) snotel site to protect the integrity of the site. The changes affect Unit 13T (minus 3 acres of commercial thinning), 12AF (entire 5 acre noncommercial unit dropped), 9AF (minus 1 acre of noncommercial thinning), and 13f (minus ½ acre of post and pole harvest). Treatments authorized as part of Alternative 3 Modified in RLC are specified by unit number in Tables 7 and 8 below. Treatment codes were previously summarized in this ROD.

**Table7: Red Lodge Creek: Alternative 3 Modified - Commercial Treatments**

Unit	Alt 3 Mod Acres	Veg RX	Fuels RX	MA
1T	58	GSH-AE	PB	G
2T	37	CC-AE	PB	G
3F	33	CT	BB	B
3T	19	CT-AE	PB	G/M
4T	13	CT-AE	PB	G/M
5T	84	CT-AE	PB	G/M
6T	17	CO: CC-AE (58%) IMP/NC-AE(42%)	PB	G
7T	35	CO: CC-AE (80%); NC-AE (20%)	PB	G
9T	22	IMP-NC-AE	PB	G/M
10T	25	IMP-NC-AE	PB	G
11T	9	CC-AE	PB	G
11AT	10	AE Regen	PB	G
11F	7	PP-NC	PB	G
13F	10	PP-NC	PB	G
13T	42	CO: CT-AE (95%); PP(5%)	PB	G
14F	10	PP-NC	PB	G
14T	3	AE Regen	PB	G
15T	9	PP-NC	PB	G

Unit	Alt 3 Mod Acres	Veg RX	Fuels RX	MA
16T	28	GSH-AE	PB	G
16AT	3	CC-AE	PB	G
16BT	8	CC-AE	PB	G
17T	9	CC-AE	BB / PB	G
17AT	13	CT	PB	G
18AT	3	CT-AE	PB	G
18T	1	CT	PB	G
19T	4	CC-AE	PB	G
20T	38	PC	PB	G
20F	3	AE Regen	PB	G
21T	1	SS-NC	PB	B
22T	9	CCR	BB	B
23T	63	CO: CC-AE (57%); CT-AE (43%)	BB-CC PB-CT	G
24T	52	PC-AE	PB	B
25T	14	CO: CC-AE (51%); CT-AE (35%) NC (13%)	PB	B
25AT	11	CT-AE	PB	B
26T	44	GSH-AE	PB	D
26AT	8	CT	PB	D
26BT	2	CT	PB	D
38AT	18	CC-AE	PB	G
38BT	32	CC-AE	PB	G
<b>Total</b>	<b>807*</b>			

\* Acres noted are inclusive of untreated leave patches within unit boundaries, and do not reflect actual acres treated (which is less than the total).

**Table 8: Red Lodge Creek Alternative 3 Modified - Non-Commercial Activities**

Unit	Alt 3 Mod Acres	Veg RX	Fuels RX	Mechanical or Hand Treatment
1F <sup>1</sup>	58	NC	BB-LS-Mast-Slashing	Mech
2F <sup>2</sup>	66	NC	BB-LS-Mast-Slashing	Mech
3AF	12	NC	PB-Mast	Mech
4F	14	NC	BB-LS-Mast-Slashing	Mech
5F	8	NC	PB-LS	Hand
6F	10	NC	PB-LS	Hand
8F	53	NC	BB-LS-Mast-Slashing	Mech-Hand
9F	4	NC	PB-LS	Hand
9AF	20	NC	PB-LS-Mast	Mech
9BF	16	NC Regen	PB-Mast	Mech
10F	5	NC	PB-LS-Mast	Mech
12F	7	NC-AE	PB-LS-Mast	Mech
13AT	1	NC	PB-LS-Mast	Mech
13BT	5	NC	PB-LS-Mast	Mech
13CT	1	NC	PB-LS-Mast	Mech
15F	5	NC	PB-LS-Mast	Mech
16F	3	NC	PB-LS-Mast	Mech
17F	2	NC	PB-LS-Mast	Mech
18F	0	NC Regen	BB	Mech
19F	7	NC-AE	PB-LS-Mast	Mech-Hand
21F	5	NC-AE	PB-LS-Mast	Mech-Hand
22F	19	NC-AE	PB-LS-Mast	Mech-Hand
39T	4	NC	PB-LS	Hand
<b>Total</b>	<b>325</b>			

### ***Roadless Area Treatment***

This decision authorizes four acres of noncommercial treatment in the Burn Mountain Inventoried Roadless Area (IRA). Small diameter lodgepole pine will be hand thinned with chainsaws along an existing road. No road construction will occur in the IRA. Approximately 0.2 miles of a *system not needed road* will be decommissioned in the IRA (Road 21415B). Additional information about the treatment in the IRA is discussed in the Section 11 of this ROD.

### ***Forest Plan Amendment***

This decision authorizes a site specific Forest Plan amendment to exempt clearcut treatments in the Red Lodge Creek (RLC) Project Area from the “maintain and improve” standard for mature forest species (Plan Amendment 45). The amendment addresses effects at the *treatment unit scale* with respect to the cumulative effect of the Greater Red Lodge Project and the MT DNRC Palisades Timber Sale on the Red Lodge Creek and Thiel Creek goshawk territories. This amendment was prepared pursuant to regulations at 36 CFR 219.17.

Treatment will create approximately 321 acres of openings in the RLC project area, of which approximately 29 acres are in the Thiel Creek post fledgling family area (PFA), and 30 acres are in the Red Lodge Creek PFA. There is approximately 10,688 acres of potential nest habitat within the 21,871-acre Greater Red Lodge Project cumulative effects analysis area (the entire project area) that could potentially provide habitat for nesting goshawk pairs, and the reduction in about 321 acres of potential nesting habit is not a significant impact at this scale (less than two percent reduction). Additional information about the rationale for the amendment is discussed in the Rationale for the Decision and the Forest Plan consistency section in this ROD.

## Willow-Nichols Creek – Alternative 2 Modified

Alternative 2 Modified retains the same treatment unit boundaries as Alternative 2 and modifies the prescription in four units: 28f, 29f, 30f, and 37t.

**Units 28F, 29F, and 30F:** I have decided to eliminate broadcast burning on approximately 283 acres in Units 28f, 29f, and 30f on the north side of West Fork Rock Creek Road to address a concern about negative impacts that may occur to mule deer winter range from broadcast burning sagebrush. I modified the prescription for these three units to lopping and scattering trees to reduce conifer colonization. By dropping the broadcast burning, the treatments no longer meet fuels objectives but grassland restoration objectives are achieved. The Lop and Scatter prescription includes the following:

- Lop & scatter all Douglas-fir < 25' height (dbh ≤8")
- Lop & scatter all limber pine <25' height (dbh ≤8") that are showing signs of insect attack or disease infection.
- Lop & scatter all limber pine <25' height (dbh ≤8") to an average 55' stem spacing (15 trees per acre. Reserving 2-3 tree clumps or scattered individual trees is encouraged to achieve this general spacing. Trees >8" dbh will be included to accomplish this spacing.
- Girdle up to 5 Douglas-fir >8" dbh per acre to reduce mature tree colonization.
- Lop & scattering will be terminated in areas when an SB1 fuel model is achieved due to slash accumulation.
- All slash will be reduced to <2' height.
- Any existing standing dead will be left standing.
- No limbing will occur.

The prescription will apply to both unburned areas as well as areas burned in the West Fork Road Fire (approximately 93 acres in Units 29F and 30F).

**Unit 37T:** Due to concerns about impacts to moose winter range in Nichols Creek, I modified the prescription for the thinning portion of Unit 37T (approximately 47 acres) to retain 10 to 20 percent untreated reserves in one-half to one-third acre patches. The addition of untreated reserve patches reduces about five acres of commercial thinning in the unit. Approximately 10 acres of the thinning portion of Unit 37T closest to West Fork Rock Creek Road burned at variable intensities. The prescription will be applied to burned and unburned areas.

**Treatment Summary:** Treatments authorized as part of Alternative 2 Modified in Willow Nichols Creek are specified by unit number in Tables 9 and 10 below. Treatment codes were previously described in this ROD.

**Table 9: WNC – Alternative 2 Modified – Commercial Treatment**

Unit	Alt 2 Acres	Veg RX	Fuels RX	MA
<b>Commercial Treatment</b>				
27T	14	CT	BB	D
27AT	27	CT	BB	D
28T	59	CO: CC-AE (10%) CT- AE (89%)	PB	D
36T	27	CO: PC (69%); CT (27%); NC (6%)	PB	D/F
37T	94	CO: CC-AE (42%); CT-AE (50%); NC (8%)	BB-CC PB-CT	R
37AT	23	PP	PB	R
<b>Total</b>	<b>244*</b>			

\* Acres noted are inclusive of untreated leave patches within unit boundaries, and do not reflect actual acres treated (which is less than the total).

**Table 10: Willow-Nichols Creek – Alternative 2 Modified - Non-commercial Treatments**

Unit	Alt 2 Acres	Veg RX	Fuels RX	Mechanical or Hand Treatment	MA
28F	66	NC	LS	Mech-Hand	R
29F	148	NC	LS	Mech-Hand	R
30F	63	NC	LS	Mech-Hand	R
30AF	4	NC	PB-LS-Slashing	Hand	R
31F	86	NC	BB-LS-Mast-Slashing	Mech-Hand	R
32F	18	NC	PB-LS-Slashing	Hand	R
33F	34	NC	PB-LS-Slashing	Hand	R
34F	9	NC	PB-LS-Slashing	Hand	R
37BT	3	NC	PB-LS-Mast	Hand	R
<b>Total</b>	<b>431</b>				

### ***Forest Plan Amendment***

This decision authorizes a site specific Forest Plan amendment to exempt Unit 31F (86 acres) in the Willow Nichols Creek Project Area from forestwide standard to “maintain and improve” habitat standard for Brewer’s sparrow, the Management Indicator Species (MIS) for sagebrush habitat (Plan Amendment 45). The amendment addresses effects at the *treatment unit scale* with respect to a fuels reduction / grassland restoration treatment that involves prescribed fire on 86 acres in grassland-sagebrush habitat. This amendment was prepared pursuant to regulations at 36 CFR 219.17.

Unit 31f was previously part of a larger grouping of treatment units proposed to reduce fuels and restore grasslands on approximately 363 acres on the north side of West Fork Rock Creek Road. Units 28f, 29f,

30f and 31f were also proposed for broadcast burning, but the broadcast burning in these units were dropped due to concerns about negative impacts to mule deer winter range. However, the West Fork Road Fire burned approximately 93 acres of the 183 acres in these three units at variable burn intensities. Additional information about the rationale for the amendment is discussed in the Rationale for the Decision and the Forest Plan consistency section in this ROD.

## Road Management

This decision authorizes temporary road construction (approx. 6.7 miles), road maintenance (approx. 6.3 miles), and road reconstruction (approx. 6 miles) to complete vegetation and fuels management activities. The Forest Service already secured an administrative road easement from Ellis Cattle Company (approx. 1.1 miles) and continues to coordinate with MT DNRC for administrative access to complete vegetation and fuels management activities on NFS lands south of state lands in the Red Lodge Creek project area. The reconstruction of Nichols Creek Road is being addressed under a separate Record of Decision, and is not authorized as part of this decision.

As described in Section 7 of this ROD, all roads used to facilitate commercial operations including equipment transport, log hauling, and access will receive either reconstruction, pre-haul maintenance, haul maintenance, post-haul maintenance, or a combination thereof. This decision does not change the design speed of the Red Lodge Loop Road #2141. Road reconstruction activities will include:

- Reconstruction of the 2141 Loop Road, including installation of approximately 23- 26 turnouts, reconstruction of the corner above Black's pond for safety (the road will be widened to accommodate the turning radius of a log truck and incorporate a turnout), and replacement of a fish passage barrier culvert south of the Eaton property with an Aquatic Organism Passage (AOP) culvert to provide for aquatic organism passage.
- Reconstruction of a short segment on Road 21419 (RLC)
- Reconstruction of Road 21415 to reach Unit 9t (RLC). A barrier will be placed on the 21415 Road to effectively restrict unauthorized motorized use. This decision does not authorize reconstruction of the 21415 Road to the Forest Service boundary with state lands.
- Reconstruct the intersection of Road 2010A (WNC)

This decision authorizes decommissioning of approximately 3.9 mile of roads identified as *system not needed* in the 2008 Beartooth Travel Decision, and changes the designation on about 1.5 miles of *system road not needed* to Maintenance Level (ML) 1 or 2 to address future management needs. These road segments will be retained on the landscape for future administrative use, but would be closed to public motorized use, and include the following:

- Route 21419; 0.39 miles; located on the south side of the Eaton property; will be designated ML 2
- Route 21415B; 0.33 mile; located off the 21415 road; will be designated ML 1
- Route 21413; 0.42 mile; located in the interior of the Red Lodge Loop Road #2141; will be designated ML 1
- Route 2010B; 0.38 mile; located in the vicinity of Palisades Campground near the boundary with private lands; will be designated ML 1

## 9. RATIONALE FOR THE DECISION

My criteria for making a decision on this project was based on how well the management actions analyzed in the FEIS address the purpose and need for action and were consistent with Forestwide and Management Area goals and standards in the Custer Forest Plan. I also considered how well alternatives addressed the issues raised during the initial scoping process, the comment period, and other collaborative phases of project development. As the project decision maker, I had to weigh all potential benefits of the alternatives against their possible impacts, and consider the suggestions and concerns from the public. As I reviewed comments received on the DEIS, I considered competing interests and values, as well as the broader public benefit in making my decision.

The Selected Alternative will modify fire behavior in treated areas, which will reduce high intensity fire in the wildland urban interface (WUI), improve safety for the public and firefighters should a fire occur, and provide fire managers more flexibility for fire suppression. The Selected Alternative will also increase vegetation diversity (size, age class, and species diversity), restore grasslands, and improve resiliency to disturbances such as wildfire and a mountain pine beetle epidemic in treated areas. Aspen enhancement will provide for age class diversity, a mosaic of mixed conifer and pure aspen stands, and increase the extent of aspen on the landscape. Road management activities will implement best management practices that provide for aquatic organism passage, reduce sources of sediment and improve water quality.

The Selected Alternative is responsive to the project's purpose and need, the resource issues described in this ROD, as well as the public concerns addressed in response to comments on the DEIS. The features of RLC Alternative 3 modified and WNC Alternative 2 modified are within the range of effects described in Chapter 3 of the FEIS. The Affected Environment and Environmental Consequences are thoroughly described in the FEIS. My review of the environmental consequences of the alternatives in the FEIS and my understanding of the Selected Alternatives make me confident that my resource specialists have adequately described the limits of the environmental effects of the Selected Alternative.

### MEETING THE PURPOSE AND NEED FOR ACTION

The project area is a transition zone between the Absaroka Beartooth Wilderness and Inventoried Roadless Areas and developed lands, and has been identified in the Carbon County Community Wildfire Protection Plan as Wildland Urban Interface. Values at risk include numerous ranches and subdivisions, hay fields and livestock, as well as trails and campgrounds on NFS and other public lands identified as WUI. This section of the Beartooth Face is highly valued for its scenery, recreation opportunities, wildlife habitat, and water quality. It also contributes to the economic prosperity of the community through tourism, grazing leases, the ski resort, hunting, etc. The Project Area is generally accessible from existing public and National Forest System Roads and has been actively managed in the past. Since 1980, past vegetation management has included noncommercial aspen treatments, regeneration harvest, commercial and noncommercial thinning and prescribed fire. Approximately 336 acres of vegetation treatments occurred in the Red Lodge Creek Project Area, and 479 acres in Willow-Nichols Creek. Management actions were generally concentrated around the existing road network, and constitute less than four percent of the project area.

Implementing the No Action Alternative would not mean that the forest will stay the same as it is now. Natural processes will continue to reign across the Beartooth Face; stand replacing wildfire, insect and

disease epidemics, wind events, and flooding will continue to shape the landscape. Within this transition zone, social considerations play a large part in how vegetation is managed. Large disturbances such as a stand replacing wildfire or a beetle epidemic are not desirable due to competing ecological/social values, and wildfires will continue to be suppressed due to risk to public safety. The recent West Fork Road Fire is an example of suppression response in the WUI with the associated risks to fire fighter safety and values at risk.

The No Action Alternative would not meet the purpose and need for action, as it would not reduce the hazard for a high intensity stand replacement wildfire in the WUI or reduce bark beetle hazards. No treatment of aspen stands would continue the downward decline of aspen; age and size class diversity would continue to decline, and high risk stands could be lost. NFS roads would not receive maintenance/reconstruction in a timely manner. Failure to implement best management practices on system roads would not improve water quality, and in some cases inadequately sized culverts would continue to restrict aquatic organism passage.

Additionally, I do not believe that Alternative 4 meets the purpose and need for action because it drops about 1000 acres of treatment which substantially compromises the effectiveness of the fuels treatments.

I recognize that the selected alternatives will not prevent large fires, or beetle epidemics, or wind events, but the treatments effectively reduce fire and beetle hazards in treated areas. The increase in diversity in vegetation (including size, age, and species diversity) may give everyone a margin of safety when that next event occurs.

Alternative 3 Modified – RLC and Alternative 2 Modified – WNC best meet the purpose and need for action while responding to concerns raised by our partners and the general public. Fuels treatments are placed on the landscape to reduce large, uninterrupted head fire runs, and the variety of treatment types will increase size, age class, and species diversity in the project area, including aspen. I believe that the analysis of fire behavior and minimum travel time analysis in the FEIS indicate that fuels treatment will be effective at modifying fire behavior. Photos 3.2.1 and 3.2.2 in the Forest Vegetation analysis in Chapter 3 of the FEIS graphically depict how thinning and clearcuts may reduce the extent and severity of a mountain pine beetle epidemic. I want to emphasize that there is no belief that these treatments will stop or reduce a mountain pine beetle infestation across the larger landscape. These treatment effects are largely confined to treated areas.

My decision also relies on Forest Plan guidance, generally and specific to this area. The Forest Plan gives direction in the forest-wide standards to design and apply timber management activities to maintain a variety of age classes and apply strategies to treat and prevent insect and disease problems including age class diversity, early slash cleanup, and stocking control, apply silvicultural practices that will keep losses due to insects and disease to an acceptable level, and employ fire suppression strategies to respond to threats to life and property, public safety, and resource values (Forest Plan p 24-25, 38). Additionally, MA G (which represents the majority of the Red Lodge Creek Project Area) has a goal to manage the area for the maintenance and improvement of a healthy diverse forest and as a source of wood products, and has standards that provide for even and uneven aged harvest (including clearcutting) and prescribed fire to meet objectives for the area.

The project areas are within the suitable timber base, have a system of existing roads that can be used to access treatment areas with a reasonable amount of temporary road construction, and are within the

wildland urban interface. All of these reasons make my decision to proceed with vegetation and fuels treatment activities reasonable and prudent.

## **CONSIDERATION OF PUBLIC COMMENT**

In addition to the thorough effects analysis conducted by Forest Service specialists, it is important to listen to and understand the input and sentiments of the public. During both scoping and public review of the EIS, the interdisciplinary team reviewed all of the comments and used that information to conduct additional analysis or consider other actions. I also have looked at the comments and responses to better understand how the public views the completeness of the analysis and reaction to the project itself. In response to public comments on the DEIS, the following changes were made to the FEIS:

- Provided additional information on the effects of the alternatives on noxious weed spread,
- Summarized results of soil detrimental disturbance monitoring from 2014
- Summarized results of fish electroshocking surveys from 2014 (no Yellowstone Cutthroat Trout were found in East Fork of West Red Lodge Creek)
- Summarized results of aspen monitoring
- Provided a more in depth analysis on the effects of the alternatives on scenery
- Clarified information regarding effects to recreation, primarily Palisades Campground and Willow Creek and Palisades Trails
- Clarified effects of the alternatives within the Rock Creek Bear Analysis Unit (BAU) for grizzly bear
- Provided additional explanation regarding the effects of the alternatives on mule deer winter range and elk cover.
- Completed additional sediment modeling to characterize effects of treatment in Nichols Creek and the West Fork Rock Creek subwatershed, as well as impacts to Black's pond.

Public comments and concerns led to the selection of Alternative 3 Modified for the RLC project area and Alternative 2 Modified for the WNC project area.

Additionally, as a result of the Forest Service objection process (36 CFR 218), information in the FEIS was updated to respond to objection points and the April 2015 FEIS incorporates changes to the fire-fuels analysis, Roadless analysis, and wildlife analysis. The September 2014 FEIS was withdrawn, and a Notice of Availability was published in the Federal Register on April 17, 2015 for the April 2015 FEIS. No changes were made to the decision as a result of the objection process.

### **Alternative 3 Modified – Red Lodge Creek**

I decided to drop 10 acres of treatment around a NRCS snotel site in Red Lodge Creek. The Forest Service and NRCS completed a joint field review of the site in summer of 2014 and determined that this 10 acre buffer would be adequate to protect the integrity of the site to record rain and snow fall.

I reviewed other concerns related to recreation, scenery, and wildlife and determined that these concerns could be addressed through design criteria and mitigation. Design/mitigation criteria that were added to, or refined for the FEIS based on public comments include:

- A barrier will be placed on the 21415 road at a point that effectively restricts unauthorized motorized use.
- If a goshawk nest is discovered, there will be no treatment within a buffer of 40 acres around known occupied goshawk nest trees. If discovered, there will be no ground disturbing activities within known occupied post fledgling area (PFA) between April 15 and August 15. The PFA is the area roughly 420 acres surrounding an active goshawk nest.
- If a great gray owl nest is discovered, no ground disturbing or motorized activity would take place within 750 feet of the nest from March 31 through May 31.
- To reduce disturbance of nesting song birds, no ground disturbance will occur in aspen regeneration treatment units (AE Regen) from May 15 – July 15. (Units 2T, 11AT, 14T, 20F, 38T).
- In order to meet applicable Visual Quality Objectives and minimize impacts to scenery, scenery mitigation was added to address concerns for specific treatment units.

I considered comments from particular landowners with Forest inholdings in Red Lodge Creek that do not desire fuels or vegetation treatments on National Forest System lands. I can truly appreciate the concerns that were expressed, and the desires by some neighbors to have the national forest adjacent to their property remain unchanged. However, I must also consider that these public lands are managed for society at large. I find that there are compelling reasons to address public safety and long term diversity and resiliency of these forests and grasslands in this area. Treatment in the Red Lodge Creek area is consistent with Management Area goals and standards. Specifically, MA G is managed for healthy, diverse forest and as a source of wood products. To the extent that concerns could be resolved through design and mitigation, I attempted to do so. The Forest Plan directs in the case of unresolved conflicts, to resolve the conflict in favor of management area direction.

The FEIS discloses an unresolved conflict between a Forestwide standard that requires the Forest to *maintain and improve* habitat for the northern goshawk, the management indicator species (MIS) for old growth forest and to follow Management Area direction. The FEIS discloses that the RLC project area contains two active goshawk nest territories, but that none of the areas proposed for treatment meet definition of old growth as defined by Green and others (2007). The territories are located in MA G, which has a standard to analyze wildlife and fish values and potential impacts, and identify and incorporate mitigation measures to the extent possible while meeting management area objectives. As discussed under Forest Plan consistency in Section 11 of this ROD, a strict interpretation of *maintain and improve* would mean that any regeneration harvest that creates a new age class, would not maintain mature forest habitat in the short term. Long term, however, regeneration harvest provides vegetation diversity and future nest habitat. In this case, I believe that a plan amendment that exempts the regeneration harvests in RLC from the forestwide *maintain and improve* standard is appropriate. This decision includes design criteria and mitigation measures that protect existing nest stands (no treatment in known nest stands), protects any newly discovered nest stands with a 40 acre no treatment buffer, and incorporates timing restrictions in existing and newly identified post fledgling family areas (PFAs).

## **Alternative 2 Modified – Willow Nichols Creek**

I decided to drop approximately 283 acres of broadcast burning in Units 28f, 29f, and 30f to minimize a significant negative effect to mule deer, and to modify the prescription in the thinning portion of Unit 37T to include 10 to 20 percent untreated reserves in ½ to 1/3 acre patches to provide moose cover.

Considerable discussion took place between the Forest Service and MT Fish, Wildlife, & Parks (FWP) regarding effects to mule deer winter range from proposed broadcast burning along West Fork Rock Creek Road, and potential effects to moose winter range in Nichols Creek. FWP identified concerns that broadcast burning along West Fork Road would result in a significant negative effect to mule deer and that thinning about 47 acres in Unit 37T would result in a decline of moose cover. The Custer Forest Plan designates mule deer as a key/ major interest species that is commonly hunted, and directs the Forest Service to manage key species and their habitats in cooperation with State and other Federal agencies. The FEIS considers effects to moose as a public interest species since the species does not have any special status in the Forest Plan.

Broadcast burning was proposed along West Fork Road to restore grasslands (reduce conifer colonization of grasslands) and reduce fire hazard. The effects analysis disclosed that about 20 to 40 percent of the sagebrush in proposed treatment units would be retained in a mosaic pattern (i.e. 60 to 80 percent of the sagebrush would be lost from broadcast burning). FWP commented that a considerable amount of sagebrush has been lost in Hunting District 520 from past wildfires including Rock Creek Fire, Willie Fire, Cascade Fire, and the Derby Fire. The EIS discloses that broadcast burning sagebrush along Willow-Nichols Creek would result in a long term, significant negative effect on mule deer, and would also have a negative effect to Brewer's sparrow in treated areas (the Forest Plan MIS for sagebrush habitat).

As shown on map 4 of the FEIS, there are hundreds of homes to the immediate south and east of the proposed treatments. The grassland units combined with treatment in Nichols Creek and near Palisades Campground were proposed as an anchor point, or a place to catch a fire coming down canyon from burning off National Forest onto private lands. Through discussion with FWP, Alternative 2 was modified for treatment in the Willow-Nichols Creek Project Area. I decided to drop the broadcast burning in Units 28f, 29f, and 30f to minimize a significant negative effect to mule deer, and treat the units instead by lopping and scattering conifers to restore grasslands. Unit 31f (86 acre) on the east side of Nichols Creek Road will still be broadcast burned. However, dropping the broadcast burning in Units 28f, 29f, and 30f greatly reduces the effectiveness of the fuels treatments; therefore the remaining treatments in the Willow Nichols Creek Project Area become more critical.

The West Fork Road Fire recently burned about 400 acres on a mix of private and public lands on both sides of West Fork Rock Creek Road; fire intensity ranged from unburned with spots to high intensity, resulting in patchy sagebrush mortality. MT FWP estimates that approximately 35-40 percent of the sagebrush between the Rifle Range and Nichols Creek was lost in the wildfire (personal communication, May 14, 2015). The wildfire burned approximately 170 acres in portions of Units 29f, 30f, 31f, 32f, and 37t.

While this decision eliminates prescribed fire on 283 acres, the West Fork Road Fire burned approximately 93 acres in Units 29f and 30f as well as additional areas within the project area. The wildfire partially achieved the fuels objectives that would have been lost by eliminating 283 acres of prescribed fire.

The FEIS disclosed that prescribed burning of sagebrush (Alt 2 and 3) in units north of West Fork Rock Creek Road would have long-term negative impacts on mule deer winter range habitat in the Willow/Nichols Creek portion of the project area due to burning of mountain big sagebrush combined with the cumulative loss of mountain big sagebrush from past wildfire and prescribed fire (FEIS, p 2.84 and 4.469). While the wildfire did not completely remove all of the sagebrush in this vicinity, it likely

exacerbated negative effects to mule deer winter range. My decision to treat these three units by lopping and scattering conifers does not contribute to additional negative effects.

Next I considered treatment in Nichols Creek, and concerns about moose winter range in Unit 37T raised by MT FWP, as well as a concern expressed by the Greater Yellowstone Coalition about watershed function. Reconstruction of Nichols Creek Road to reduce sediment delivery to Nichols Creek is a Forest Service priority to improve water quality, and is being authorized under a separate Record of Decision. Long term, Nichols Creek Road will be part of a non-motorized trail connection to Red Lodge Mountain (refer to FEIS discussion of cumulative effects in Chapter 2). The reconstruction work will require tree clearing in unit 37T to fill in the trench that currently serves as Nichols Creek Road, and additional tree clearing for a new alignment to reduce grade to less than 12 percent. The thinning, clearcutting, and post and pole treatments in Nichols Creek are important fuels treatments, especially with the elimination of broadcast burning in 28f, 29f, and 30f. The post and pole treatment in 37AT has been identified by the Crow Tribe as an important source of teepee poles.

Extensive earthwork will be occurring within the boundary of Unit 37T to reconstruct the road, so impacts to wildlife would not be avoided by dropping proposed vegetation management activities. The thinning in Unit 37T will retain large Douglas-fir trees, which are an important component of cover. Additionally, the modified prescription to leave 10-20 percent untreated reserves in the thinning portion of the unit will retain about five acres in ½ to 1/3 acre patches for moose cover.

It is worth noting that the 40-acre clearcut in 37T is not located adjacent to Nichols Creek (it is located in the northwestern portion of the unit (See Map 4), and all Streamside Management Zone practices will be met. The Forest Service conducted additional modeling to determine if removing the commercial thinning made a difference to sediment delivery (See Response to Comments #25 in the FEIS), and the results indicate that dropping treatment does not make a significant difference in sediment delivery to the West Fork subwatershed (a reduction from 2.0% above background levels to 0.4% above background levels).

The West Fork Road Fire burned approximately 10 acres of Unit 37T in the southern portion of the unit closest to West Fork Rock Creek Road at variable burn intensities (predominately low intensity). The analysis considers the effect of wildfire on big game species, including moose, noting that stand replacement fires would convert vegetation conditions to early successional stages that would not provide suitable winter habitat for any of the big game species (FEIS, p 4.460-461). Stand replacement fires stimulate growth of aspen and other forage, but reduce availability of older aged conifers that are used by moose in the winter during heavy snowfall.

The USFS worked with MT FWP to develop a mitigation measure to address a specific concern about moose winter range in Unit 37T in Nichols Creek, which has been incorporated into my decision. On May 14, 2015, the USFS and MT FWP discussed the effects of the West Fork Road Fire with respect to moose winter range, and FWP indicated that the wildfire did not burn very far into the Nichols Creek Drainage and will have minimal impact to moose winter range. The 400- acre West Fork Road Fire, and in particular the 10 acres that burned in Unit 37 are not expected to affect population levels for moose that use the habitat on the National Forest. I do not feel that additional adjustments to the Unit 37T prescription are necessary.

In the Nichols Creek project area, the purpose and need to reduce fire hazard poses some conflict with providing desired mule deer habitat so there are trade-offs to be considered. Alternative 2 Modified

will reduce the effectiveness of fuel treatments compared to Alternative 2, but the remaining treatments in WNC still provide value. I do not believe that the purpose and need for action would be met by dropping the broadcast burning in units 28f, 29f, and 30f, and vegetation treatments in Nichols Creek (37T and 37AT). It is for these reasons that I have decided to drop broadcast burning in 28f, 29f, 30f, but retain all other treatments in WNC with the modified prescription in 37t for moose cover.

## SUMMARY

Overall, I conclude that the Selected Alternative best meets the purpose and need of the project while protecting the environment and addressing social concerns. I have selected this alternative with its associated design and mitigation features for implementation.

My decision is based on a review of the FEIS and project record that shows a thorough evaluation of relevant scientific information, a consideration of opposing views, and the acknowledgment of incomplete or unavailable information, scientific uncertainty, and risk. The Literature Cited section of the EIS is comprehensive and contains many recent publications. Chapter 3 of the FEIS contains numerous discussions of uncertainty and risk involved in the analysis. I found no insurmountable flaws or unexplored issues that would cause me to make a different decision.

## 10. DESIGN, MITIGATION, MONITORING & PERMITS

### DESIGN CRITERIA & MITIGATION

The Forest Service developed the design features and mitigation measures listed below, which are included as part of all action alternatives (unless otherwise noted). NEPA defines 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. These design feature and mitigations are intended to reduce or mitigate impacts and are an integral part of all action alternatives.

#### Forest Vegetation

1. **Windthrow:** Avoid layout of cutting unit boundaries with wind catching indentations, long straight lines or square corners. Long straight lines and square corners deflect wind and increase windthrow. Create irregular cutting boundaries without sharp indentations or square corners to lessen the opportunity for deflection and funneling of air currents.

2. **Irregular Tree Spacing / Tree Retention**

**Commercial Thin (CT):** For commercial thinning emphasis will be to promote irregular spacing with occasional clumps. CT units will be marked to leave a range of 50 to 80 square feet of basal area per acre, with an average basal area per acre of 60. Inclusions of higher areas of basal area will be obtained by leaving occasional clumps of 3 to 6 individual trees with interlocking crowns.

- Unit 23T and 5T: Remove all conifer trees up to 1 ½ tree heights from cottonwood trees.
- 6T: Blowdown area (~6 acres) under Alternative 2 would not be treated.

- 13T: Within the eastern 10 acres of the unit near Black's pond, retain 10 to 20% untreated reserves in clumps ranging from ¼ to 1/3 acre in size for a patchy mosaic
- Unit 37T: Within the commercial thinning portion of the unit, retain 10-20% untreated reserves in clumps ranging from ½ to 1/3 acre in size for moose cover.

**Improvement Cut (IMP):** Retain 10 square feet of basal area per acre of large lodgepole pine in Units 6T, 9T and 10T; emphasis will be given to promote clumping. Desired result is a clumping of individual trees to meet the basal area per acre.

Leave 1 clump of 11 to 15 large lodgepole pine trees per acre (average 11-13" dbh) with interlocking crowns for wildlife habitat. If there are no clumps of 11 to 15 trees per acre, select clumps of trees that maximizes the number of trees in a clump with interlocking crowns. *These clumps will be designated as no treatment areas.*

**Grassland Restoration Units:** Thin Douglas-fir; retain incidental, healthy limber pine and ponderosa pine in grassland systems.

**Noncommercial Thinning (NC):**

- Cut trees heavily infected with stem and branch gall rust, retaining healthy lodgepole pine.
- Retain species other than lodgepole pine where they exist.
- 12AF: Retain 400 foot untreated buffer around NRCS snotel site, unless an alternative agreement is reached with NRCS for treatment.

3. **Understory Retention (commercial thinning in lodgepole pine stands)**

No understory retention on 90% of treatment unit (thin all understory) while maintaining 10% untreated patches of understory ½ to 1 acre in size.

4. **Pine Engraver Infestation Susceptibility:** Reduce pine engraver infestation susceptibility. For proposed commercial and non-commercial thinning activities, when treating 3 inches and larger activity slash on site, lop into small pieces to expose to sunlight to dry it out or do not create slash from January through July making it less suitable for beetle colonization. Landing piles should be a minimum of 20 feet wide and 10 feet deep to attract emerging beetles deeper into piles. Minimize logging damage to leave trees and avoid scorching leave trees when burning activity fuel piles to prevent population buildup and subsequent tree killing.

5. **Natural Regeneration:** Prepare seedbed for the establishment of natural regeneration on treatment sites intended for conifer reestablishment. Expose 10-20% bare mineral soil scattered across the treatment area, accomplished by mechanical treatment activity or broadcast burning.

Lodgepole pine exhibit both serotinous and non serotinous cones in the proposed clearcut treatments intended for conifer regeneration. During implementation sale administrator will need to work with Silviculturalist to ensure adequate tops (with cones) are left scattered across the treatment unit for a seed source.

Natural regeneration anticipated for all lodgepole pine regeneration treatments. Ensure every treatment unit receiving a regeneration harvest will meet or surpass stocking guidelines.

Minimum stocking objectives 5 years from final harvest: conifer seedlings 300 to 500 seedlings per acre on 80% of the area. Planting of conifers may occur if stocking objectives cannot be met.

6. **Activity Fuels:** Whole tree yard to reduce activity fuels (slash). Mechanical carrying or dragging felled trees (top and bole) to common areas followed by piling of tops and non-merchantable pieces. Lop and scatter to no more than 18 inch slash height.
7. **Hand Pile Burning:** Limit tree mortality during burning of piles: Limit Hand Piles – Size and distance to leave trees. Inside treatment units, maximum pile size shall be 12 feet in diameter by 8 feet in height and minimum size shall be 7 feet in diameter by 5 feet in height. Slash piles will be placed at least 15 feet from live trees to minimize mortality of leave trees during burning.
8. **Snags (Apply to Forested Stands):**
  - Conifer Snag Marking Guide in Commercial and Non-Commercial Treatments:
    - Thinning Units: Snags greater than or equal to 15" DBH will be retained where available. Where available, retain a minimum of 6-7 snags per acre that are >10" dbh (largest available) and greater than 75 feet from roads and/or private property and are not a safety hazard during project implementation. Retain snags in clumps, where possible, with a minimum of 1 clump per 5 acres. Retain existing snags at locations greater than 75 feet from roads, and where they are not a safety hazard during project implementation.
    - Snags may include broken topped trees that are still alive. A snag is any dead tree  $\geq 8'$  in height.
    - Clearcut Units: Snags would not be retained in lodgepole clearcuts, as they would likely fall over. Note: CWD retention in clearcut units is higher (See Table 2.3 )
    - Snag retention criteria (6-7 snags per acre) would not apply to non-forest settings.
  - Aspen Snag Marking Guide in Aspen Regeneration Treatments and Aspen Enhancement areas:
    - Where available, retain all aspen snags  $\geq 6''$  dbh and greater than 75 feet from roads and/or private property and are not a safety hazard during project implementation.
    - Snags may include broken topped trees that are still alive. A snag is any dead tree  $\geq 8'$  in height.

### Water Quality/Aquatic Species:

9. Temporary stream crossings:
  - a. All temporary stream crossings will be constructed to minimize sediment delivery to stream channels, convey high flows, and maintain passage of aquatic organisms.
  - b. Any topsoil removed during construction will be stockpiled for rehab purposes outside of the perennial floodplain (inundated by 1.5 – 2 year recurrence interval events) from the stream to prevent potential for sediment delivery.
  - c. All temporary crossings will be rehabilitated immediately upon project completion. Crossing rehab will include reconstructing crossings to match upstream and downstream streambed material and channel dimensions. Disturbed areas will be

- rehabilitated by applying any stockpiled topsoil and forest duff as well as a Forest-approved seed mix.
- d. Construction of all stream crossings would occur between July 15<sup>th</sup> and September 30<sup>st</sup> to minimize impacts to spawning fish and incubating eggs and fry. Work outside these timeframes could occur if the Forest fish biologist or hydrologist determines there would be minimal impact to fish.
  - e. Where site conditions permit, rock-lined fords may be used as an alternative to culverts. Crossing type will be prescribed and designed in coordination with hydrology or fisheries staff.
10. Standard timber sale protection provisions would be applied to the commercial harvest activities to protect against soil erosion and sedimentation. Timber harvest activities will be conducted in compliance with Water Quality BMPs for Montana Forests (Logan 2001).
  11. All operations adjacent to perennial, intermittent, and/or ephemeral streams will be in compliance with the Montana Streamside Management Zone (SMZ) law (MCA 77-5-301 through 307). An Alternative Practices waiver will be acquired from Montana DNRC where proposed treatments deviate from SMZ rules pertaining to tree retention and broadcast burning.
  12. No trees would be cut within 15 feet of the Ordinary High Water Mark along any perennial streams for the purpose of providing thermal regulation, maintaining streambank stability, and ensuring a future source of large woody debris (LWD) recruitment. An exception to this criterion will be in locations where naturally occurring meadows have been colonized by conifers. The fisheries biologist or hydrologist will determine which meadow stream segments have sufficient stream bank stability and aquatic habitat to warrant an exception from the 15-foot no-cut buffer. An Alternative Practices Waiver will be acquired where vegetation manipulation may result in deviation from SMZ guidelines for overstory retention.
  13. Fisheries or hydrology staff will assist with leave tree marking along the riparian corridor beyond the 15-foot buffer. Leave trees would be those that, if they fell perpendicular to the channel, the diameter of the fallen tree at the high water mark of the channel would be greater than 8 inches in diameter. The purpose is to protect those trees that when recruited to the channel, are most likely to provide well-anchored and stable LWD while allowing harvest of smaller diameter trees that contribute to high fuel loads.
  14. Vehicles and logging machinery would not be driven within 50 feet of wetlands, with the exception of maintenance/reconstruction/decommissioning of existing roads and designated temporary crossings. SMZ regulations regarding tree retention would be extended to apply to isolated wetlands.
  15. All required water quality permits, including but not limited to 124 (Stream Protection Act), 318 (Short Term Water Quality Standard for Turbidity), and Nationwide 404 (Federal Clean Water Act) permits would be acquired prior to any ground disturbance.
  16. Temporary roads would be rehabilitated by ripping, re-contouring, and slashing upon completion of project activities. Further detail on temporary road rehabilitation can be found in

## Appendix D.

**Soil Productivity:**

17. **Coarse Woody Debris:** Retain down woody debris in treatment units to ensure future soil productivity and provide for wildlife habitat. See Table 2.4.
18. **Soil Quality Standards:** Hand and mechanical operations must be in compliance with USFS R1 Soil Quality Standards (R1 Supplement No. 2500-99-1). R1 Soil Quality Guidelines recommend that management activities should not create detrimental soil conditions on greater than 15 percent of the activity area. Any detrimental disturbance exceeding 15% in the activity area would be remediated after treatment. Detrimental soil disturbance includes any or all of the following (from FSM 2500 R1 Supplement 2500-99-1 2554.10):
  - Compaction resulting in a 15 percent increase in bulk density
  - Rutting in excess of 2 inches
  - Displacement of soil of one or more inches depth from a surface soil horizon from a continuous area greater than 100 square feet
  - Physical and biological changes to soil resulting from high severity burning
  - Severe surface erosion, evidenced by rills, gullying, and soil deposition
19. Mechanical operations in units will be conducted when soils can support the weight of machinery while meeting R1 Soil Quality Guidelines. These conditions include, but are not limited to, dry summer months when soil moisture is minimal or during winter months when sufficient frost is found in the soil profile to support machinery. Forest Service soils personnel will work with harvest administrators and fuels specialists before and during implementation to ensure that soil conditions are conducive to mechanical operations.
20. Use ground-based harvest systems only on slopes having sustained grades less than 35 percent. Require a systematic skid trail pattern during logging. Lay out skid trails in a manner that minimizes or eliminates sustained grades steeper than 15%. Maintain an average of at least 75 feet between skid trails in harvest units, except where skid trails converge.
21. Ground based skidding equipment should travel off established skid trails only to the extent reasonably necessary to harvest available timber. (See Appendix D for more details).
22. Areas of concentrated soil disturbance such as landings and skid trails would be ripped/scarified where compaction exists and seeded with native species after harvest activities are complete-but prior to the following winter season. Erosion control and drainage measures will be applied as appropriate immediately following completion of unit harvest activities. Monitor for new noxious weed infestations.

**Scenery**

23. The goal of scenery mitigation is to meet Forest Plan VQOs and minimize visual impacts to sensitive viewpoints. The following mitigations would apply:

- 12F: Is a noncommercial thinning that is visible from FSR 2141 and adjacent to 16AT. Thinning should be heavier next to 16AT to transition the opening.
- 15F: Is a noncommercial thinning that is visible from FSR 2141 and across the road from 19T. Thinning should be heavier along the road to blend with the opening in 19T.
- 16F: Is a noncommercial thinning that is visible from FSR 2141 and adjacent to 19T. Thinning should be heavier along the boundary with 19T to transition the opening in 19T.
- 16AT: Is a 3 acre clearcut that is visible from FSR 2141. Try to get stumps to low as ground as possible. Blend the opening with Unit 12F and adjacent natural openings.
- 16BT: Is an 8-acre clearcut that is visible from FSR 2141. To meet Partial Retention, retain 5 to 7 clumps of 3 to 6 Douglas-fir trees that are 3' to 6" dbh.
- 17T: Is a 9-acre clearcut that is visible from FSR 2141. To meet Partial Retention, the prescription was adjusted to retain 5 to 7 clumps of 3 to 6 Douglas-fir trees that are 3' to 6" dbh.
- 17AT: is a 13-acre commercial thin that is visible from FSR 2141 and across the road from 17T. Thinning should be heavier near the road to transition with the opening in 17T.
- 19T is a 4-acre clearcut that is visible from FSR 2141. Where possible, retain 3-4" dbh Douglas-fir. Blend unit with 16F and 15F (thinning is heavier in 16F and 15F to transition into the opening in 19T). Shrubs and large rocks will minimize appearance of stumps.
- 25T: is a 14 acre combination unit (7-acre clearcut, 5-acre commercial thin, and 2 acres noncommercial thinning). The immediate foreground visible from FSR 2141 will be non-commercially thinned, and Douglas-fir and aspen would be retained as a visual buffer. To meet Partial Retention in the portions of the unit that are visible from FSR 2141, transition the edge of the clearcut and adjacent thinning to avoid sharp contrast, and blend the clearcut with the adjacent meadow.
- Units 27T, 27AT, and 28T: Within 100 feet of the Palisades Trail, cut stumps less than 8 inches where possible. Avoid skidding on Palisades Trail, and minimize skid trail crossings across the trail. Any crossings would be perpendicular to the trail. Character trees and trees that define the trail corridor would be retained where ever feasible. To minimize visual impacts from observation points off the National Forest, feather edges and provide patchy clumps of vegetation to avoid an unnatural appearance.
- Units 28F, 29F, and 30F: Within 100 feet of West Fork Rock Creek Road, cut stumps less than 8 inches where possible.
- 36T: Within 100 feet of FSR 2010 (approaching Palisades Campground), cut stumps less than 8 inches where possible. Retain 100 foot buffer from developed recreation features such as picnic tables, campfire rings, and tent pads.
- 37T: Within 100 feet of Nichols Creek Road, cut stumps less than 8 inches where possible. Blend clearcut with adjacent vegetation.
- 39T: is a 4-acre noncommercial thinning in the Burnt Mountain Inventoried Roadless Area. Stump heights shall be four inches or less.
- In grassland and wet meadow restoration units, where trees would be cut by hand (lopped) and scattered on the ground, the cut/butt ends would be left facing away from the road within 100 feet of the road edge, where possible.
- Where slash would be hand piled and burned within 100 feet of FSR 2141, a few pieces of slash would be placed over the residual burn scar as needed, to visually camouflage the burn spot and create some micro-climates.

## Recreation

24. **Public Awareness:** Use signing, news releases and field level contacts to inform and educate the public regarding project activities or travel restrictions to raise public awareness of project activities. *See response to comment #170.*
25. **Rehabilitation:** Vegetation and fuels management activities that affect developed and dispersed recreation sites and trails would be mitigated by reclaiming sites directly affected by project activities. *See response to comments 161.*
26. **Roads and Dispersed Recreation:** Allow for utilization of roads and dispersed recreation sites in the project areas to the extent possible while not compromising safety of the public or workers. Limit operations to week days to the extent possible to reduce impacts during evening hours, weekends, and holidays. Where there is a safety concern, public access would be restricted from areas that are being actively logged. Sites that could be temporarily closed during log hauling include Nichols Creek Road and the Red Lodge Loop Road # 2141 Road between private land parcels belonging to the Dykemas and Eatons. Additionally, Nichols Creek Road would be closed during road reconstruction activities. *See response to comments 162.*
27. **Developed Recreation Sites and Trails:** To ensure public safety, Palisades Campground and Willow Creek and Palisades Trails would be closed for public safety during tree cutting and log hauling operations. To minimize both short term and long term impacts to these recreation sites, the following apply:
  - Coordinate timing of project activities with the District to complete activities in as short a time as possible.
  - Palisades Trail and Willow Creek Trail would not be used as skid trails.
  - Temporary road and/or skid trail crossings across designated forest trails will be kept to a minimum. Any crossings will be perpendicular to designated forest trails.
  - Character trees and trees that define the trail corridor should be retained where ever feasible.
  - No changes would be made to trail alignment and trail surfacing unless such actions are needed to enhance the trail and protect resources and coordinated with the District Recreation specialist.
  - Trail closure signs will be placed on all trailheads during active logging and hauling.
  - At Palisades Campground, vegetation management activities within 100 feet of improvements (tables, fire rings, camp pads) will match the vegetation management plan for the campground (applies to 36T).
  - Clearcuts will be avoided within 100 feet of the Palisades Trail (applies to unit 28T).

## Transportation

28. A barrier will be placed on the 21415 road at a point that effectively restricts unauthorized motorized use.

## Inventoried Roadless Area

29. No roads or skid trails would be constructed within the Burnt Mountain Inventoried Roadless Area (IRA).
30. Cutting unit boundaries adjacent to the IRA would be clearly marked and mapped to avoid the

IRA.

31. Stumps would be cut to a height not to exceed 4 inches above ground or rock to minimize impacts to the natural and undeveloped state of the IRA.

### **Cultural Resources**

32. If, in connection with operations under this decision, any unanticipated historic or prehistoric resources are encountered, activities must cease in the vicinity of the find and the District Ranger and Forest Archeologist notified. Plans designed to avoid or reduce further disturbance or to mitigate existing disturbance will be formulated in consultation with the MT SHPO, affected tribes, and the Forest Service. The discovery must be protected until notified in writing to proceed by the authorized officer (see 36 CFR 800.100,112:43 CFR 10.4).
33. All cultural field inventories will be completed for temporary roads, piles, and landing locations as they are finalized.
34. The Forest is following *Wildland Urban Interface and Large Scale Hazardous Fuels Reduction Site Identification Strategy (SIS)* to address the effects that large scale, landscape level hazardous fuel reduction projects may have on cultural resources and identify measures to reduce or eliminate those effects. The SIS was approved as part of the programmatic agreement between the USDA-Forest Service-Northern Region, the Advisory Council on Historic Preservation and the Montana State Historic Preservation Officer (MT SHPO). The SIS protocol is followed for this project in compliance with the NHPA. Under the SIS the following measures will be taken to mitigate the effects of this undertaking.
  - a. All sites within ground disturbing units will be reviewed by the Forest Archaeologist and individual treatment prescriptions assigned prior to ground disturbing activities.
  - b. Forest Archaeologists will be notified prior to conducting the approved cultural site treatments and will monitor all approved treatments.
  - c. All activity fuels will be piled outside the perimeter of all cultural sites. No mechanized equipment will be allowed to operate within the heritage site boundaries unless specifically allowed by the prescribed site treatment.
  - d. The Forest archaeologist will monitor the sites receiving protective treatments during project implementation and upon completion of the project to assure the preservation and protection of the heritage resources and determine the success of the proposed treatments.

### **Air Quality**

35. The Beartooth District will provide notice to the public through a combination of one or more of the following forums prior to each burn; press releases, social media, road signage and appropriate public contacts on burn days.

### **Rare / Sensitive Plants**

36. If sensitive plants are found during implementation, consult with the Forest Service biologist to

develop any mitigation measures that may be needed to protect the site prior to completing the management activity.

37. Known locations of white lady's slipper (*Cypripedium montanum*) in unit 20T will be avoided. Small patch clearcuts will be located at least 1 ½ tree height away from the plant to retain current vegetative composition and light regimes.
38. Any changes to on the ground work will be provided to the plant specialist for review of possible effects before work occurs.

### **Range**

39. In Units 38T and 24T, retain a 500 foot natural buffer that prevents cattle from escaping range allotments along boundary lines between the Red Lodge Creek/Burn Fork allotments (Units 24t) and the Hogan Creek allotment / Palisades Ranch boundary (38t).
40. Avoid damaging range fences in unit 1f, 2t, 3f, 12t, 13t, and 25t. If a contractor removes/damages the fence to complete vegetation management, they must repair the fence upon completion of vegetation management activities.
41. Stock Driveways: Stock driveways are present in units 18AT, 23T, 16T, and 39T. These routes shall be kept clear of brush, logs and slash to facilitate ease of herding and moving livestock.
42. For Broadcast burning within any of the 4 allotments - only one pasture per allotment per year may be burned in order to defer grazing till end of season in the burned area, unless otherwise negotiated with the permittee.

### **Weeds**

43. Standard best management objectives and associated practices for roads and timber management would be followed to reduce noxious weed spread (See Chapter 3 – Weeds and Appendix F).
44. Treatment units shall be monitored and treated for existing noxious weeds prior to road use, road building and vegetation treatment activities. Treatment would occur on all known weed infestations within and adjacent to proposed vegetation treatment units about one month before implementation occurs if during the growing season. If fuel and timber treatments would occur outside of the growing season, then weed treatment would occur during the previous growing season. All vegetation treatment areas would be monitored and treated for noxious weeds for a period of at least five years after full implementation of the project.

### **Wildlife**

#### **Birds**

45. If a goshawk nest is discovered, there will be no treatment within a buffer of 40 acres around known occupied goshawk nest trees. If discovered, there will be no ground disturbing activities within known occupied post fledgling area (PFA) between April 15 and August 15. The PFA is the

area roughly 420 acres surrounding an active goshawk nest. If a great gray owl nest is discovered, no ground disturbing or motorized activity would take place within 750 feet of the nest from March 31 through May 31.

46. To minimize potential for disturbance and displacement of goshawks during the breeding season, no ground-disturbing activities would be permitted within currently identified goshawk PFAs (Post Fledging Areas) from April 15 through August 15, unless monitoring shows the territory is not occupied, including: 1T, 9BF, 9T, 10T, 11T, 11AT, 15T, 16BT, 20F, 21F, 22F.
47. To reduce disturbance of nesting song birds, no ground disturbance shall occur in aspen regeneration treatment units (AE Regen) from May 15 – July 15. (Units 2T, 11AT, 14T, 20F, 38T).

#### **Bears:**

48. To prevent grizzly bear and black bear incidents, all attractants (food, garbage, etc.) will be stored in compliance with the Custer Gallatin Food Storage Order. The contractor will be informed of possible risks associated with working in grizzly bear habitat, and will be required to comply with the above Food Storage Order.
49. Any incident involving a grizzly bear or black bear will be reported to the Forest Service representative within 24 hours. The Forest Service may require immediate temporary modification of operations if such an action is necessary in order to prevent confrontation or conflict between humans and bears.

#### **Big Game**

50. Contractors and their employees shall not be allowed vehicle access for the purpose of hunting, transporting hunters, discharging firearms or transporting big game animals on project routes closed to public motorized use.

#### **Wildlife Security**

51. No public motorized use of temporary roads constructed for this project would be allowed. During project implementation barricades would be used to prevent public use. If needed an area closure would be implemented to facilitate enforcement.
52. All temporary roads constructed for the project would be constructed to the minimum standard necessary to accommodate project related traffic. Project roads would be closed and rehabilitated upon completion of the project.

#### **Aspen Enhancement**

53. **Aspen Regeneration:** Patch Diversity – Where aspen communities are encountered that are rated as a low or no risk for loss (See Chapter 3 – Wildlife analysis for definitions of low/no risk) leave in scattered small patches on up to 10 percent of the treatment acres. Size of leave patches may range from less than ¼ acre in size up to 1/3 acre in size.
54. **Aspen Enhancement:** Species diversity. To encourage the return of aspen and promote wildlife

values when aspen stands are encountered follow the Aspen Stand Loss Ratings and treatment guides contained in Chapter 3 – Wildlife analysis.

## MONITORING

This decision requires monitoring during and after project implementation to ensure compliance with all design criteria and determine the adequacy and effectiveness of mitigation measures. The monitoring for the Greater Red Lodge Project will include oversight of project effects on soils, vegetation, water, wildlife, fisheries, and roads. The monitoring required by my decision includes the following:

### Implementation

1. Develop a NEPA to Implementation crosswalk to assure layout complies with NEPA decision. Review the contract prior to advertisement to assure project implementation complies with the NEPA decision.
2. Review marking guide to ensure trees are marked to achieve conditions described in NEPA decision. Monitor and oversee vegetation treatments throughout and post operations to assure compliance with contract specifications, and that treatment objectives were achieved. Complete activity through sale and contract administration.

### Water / Soils

3. **Detrimental soil disturbance monitoring** will be conducted within those units where past harvest activities will overlap with project activities before implementation, and one, three, and five years post-implementation. Other selected units will also be monitored at the same intervals post-implementation.
4. **Coarse wood monitoring** will be coordinated with fuels personnel following implementation. Where feasible, this monitoring will be completed in tandem with DSD monitoring. This monitoring will be completed using a standardized monitoring protocol.
5. **Channel stability monitoring:** With several channel reaches within the project area being rated highly variable sensitivity to disturbance and sediment supply, channel stability monitoring would occur during and after project implementation.
6. **BMP Review:** The Greater Red Lodge Project will be subjected to BMP reviews following implementation, and possibly a Montana Interagency BMP review and FS National Core BMP review.

### Vegetation

7. All regeneration harvests and small openings created during prescribed fire implementation would be monitored (1<sup>st</sup>, 3<sup>rd</sup>, and 5<sup>th</sup> year) to ensure forest cover reestablishment per the stocking objectives stated in the design criteria in Chapter 2 – Design and Mitigation and monitoring item E2 in the Forest Plan (pg. 107).
8. **Aspen Monitoring:** A long-term monitoring transect was established in July 2014 in aspen regeneration Unit 38T to document pre-treatment vegetation and assess post-treatment aspen condition. Additional transects, based on Regional protocols, will be installed in aspen units, and monitoring will occur pre and post treatment to evaluate the effectiveness of treatment.

### Wildlife:

9. Before and during implementation, conduct surveys for northern goshawks during the breeding season to identify needs for protective measures associated with potentially occupied nests.

10. Monitor temporary project roads upon project completion to ensure permanent and effective closure.

#### **Noxious Weeds**

11. Monitor and treat existing noxious weeds before and after temporary road construction, road maintenance and reconstruction, road decommissioning/obliteration, and vegetation treatment activities. Weed treatment shall occur on all known weed infestations within and adjacent to, proposed vegetation treatment units about one month before implementation occurs if during the growing season. If fuel and timber treatment would occur outside of the growing season, then weed treatment shall occur during the previous growing season.
12. All fuels/vegetation treatment areas, including landings and skid trails, must be monitored and treated for noxious weeds for a period of at least five years after full implementation of the project (a requirement due to the high risk rating provided by this weed risk assessment).

## **PERMITS**

Wetlands, riparian areas, and streams will be protected through design/mitigation measures. If necessary, the Forest Service would obtain permits to comply with Federal and state laws, including but not limited to:

- **Montana Streamside Protection Act (SPA 124 Permit)** - Any project including the construction of new facilities or the modification, operation, and maintenance of an existing facility that may affect the natural existing shape and form of any stream or its banks or tributaries (Montana Department of Fish, Wildlife, and Parks).
- **Federal Clean Water Act (Section 404 Permit)** – Any activity that will result in the discharge or placement of dredged or fill material into waters of the United States, including wetlands (U.S Army Corp of Engineers).
- **Short-Term Water Quality Standard for Turbidity (318 Authorization)** –Any activity in any State water that will cause unavoidable short-term violations of water quality standards. "State water" includes any body of water, irrigation system, or drainage system, either surface or underground, including wetlands, except for irrigation water where the water is used up within the irrigation system and the water is not returned to other state water (Montana Department of Environmental Quality).
- **Stormwater Permit** – Sec. 12313 of the 2014 Farm Bill (Silviculture Activities) provides that EPA shall not require a permit for discharge of runoff resulting from the conduct of silvicultural activities. This codifies the longstanding policy that certain silvicultural activities do not require a National Pollutant Discharge Elimination System (NPDES) permit. This does not limit authority for EPA to use non-permitting authorities under Sec.402(d)(6) of the Clean Water Act. The FS is coordinating with MT DEQ regarding permit requirements for road decommissioning.

## **11. FINDINGS REQUIRED BY LAWS, REGULATIONS & POLICIES**

Where applicable, compliance with laws, regulations, and policies are listed and addressed in various sections of the FEIS and project record. My decision to implement the Proposed Action will comply and be consistent with applicable laws, regulations, and policies, including those described below. My

decision includes a forest plan amendment to exempt regeneration harvest in the Red Lodge Creek Project Area from the Forestwide standard to maintain and improve habitat for northern goshawk, the Management Indicator Species (MIS) for old growth forest, and a forest plan amendment to exempt Unit 31F in the Willow Nichols Creek Project Area from the forestwide standard to maintain and improve habitat for Brewer's sparrow, the MIS for sagebrush habitat.

## CUSTER FOREST PLAN

The Custer Forest Plan embodies the provisions of the NFMA, its implementing regulations, and other guiding documents. The Forest Plan sets forth in detail the direction for managing the land and resources of the Custer National Forest. The Custer Forest Plan was approved in 1986 and has been amended.

The Forest Plan identifies standards at two geographical levels, Forest-wide and Management Areas. Forest-wide Standards, which apply to NFS land that is administered by the Custer Gallatin National Forest, are intended to supplement, not replace, the national and regional policies, standards, and guidelines found in Forest Service manual and handbooks.

The Project Area is designated MA B, D, G, F, M, and R. The majority of the RLC project area is designated MA G, with lesser amounts of MA D (northwest portion of project area) and MA B (generally north side of 2141 Loop Road). The majority of the WNC project area is designated MA R, with lesser amounts of MA D (Palisades area) and F (Palisades Campground). Riparian areas were not mapped in the Forest Plan, but are designated MA M. Consistency with the Forest Plan forestwide and management areas are discussed in detail in the FEIS (page 2.52-68) as well as by resource area in Chapter 3, and briefly summarized below.

## Forest Plan Standards

**Timber:** Custer Forest Plan standards require timber management activities to be designed and applied to maintain a variety of age classes, and states that size and shape of individual treatment units will be guided by characteristics of the stand and area and consideration of all resources objectives. The Forest Plan also states that the Forest shall apply strategies to treat and prevent insect and disease problems include providing for age-class diversity, early slash cleanup, and stocking control.

Forest Plan timber management objectives and standards set the purpose and need for the project. As stated in Chapter 1 of the FEIS, one purpose of the Greater Red Lodge Project is to maintain / improve resiliency of forest vegetation and grasslands to improve and/or maintain the general health, resiliency, and sustainability of forested stands and grasslands, and reduce the risk of epidemic insect and disease infestations within the project area. Treatments are proposed to reduce mountain pine beetle hazards in treated stands; there is no intent with these treatments to stop or reduce a mountain pine beetle infestation across a larger landscape. The project is consistent with all Forest Plan standards for timber management.

**Old Growth:** The Custer Forest Plan does not have a specific old growth standard. Rather, the Forest Plan states that the Forest has the responsibility to manage the land to maintain at least viable populations of existing native and desirable non-native vertebrate species, promote the conservation of federally listed threatened and endangered species and coordinate and cooperate with appropriate state, federal and private agencies in the management of habitats for major interest species.

Based on inventory data, there is old growth in the project area, but not in treatment units. Forest vegetation in treatment units does not meet the definition of old growth as defined by Green and others (2007). Vegetation treatments will not treat any stands greater than 120 year old, and commercial thinning units could develop into old growth over time absent a large disturbance. The Forest Plan designates the northern goshawk as the MIS for old growth. The FEIS considers existing condition and effects of the project on species that use mature/old forest at various scales, and in consideration of best available science. The analysis is consistent with the Forest Plan and other applicable laws, regulations, and policies. See response to comments 44, 60-65.

**Snags:** Custer Forest Plan standards for snag retention apply to Management Area G (Forest Plan page 64: "Cavity nesting habitat will be maintained by retaining two snags per acre, where they exist") and Management Area M (Forest Plan page 80: "The habitat for old growth/snag cavity dependent species will be maintained"). The proposal includes design criteria to retain all snags greater than or equal to 15" dbh in thinning units where available, and a minimum of 6 to 7 snags per acre greater than 10" dbh (DEIS 2.39) where available throughout the project area, which is greater than the two per acre required by the Forest Plan. See response to comments #350-353.

**Water Quality and Fisheries:** The Forest Plan requires resource management activities to be conducted in such a manner to assure maintaining water quality and quantity to maintain fish habitat, to manage fish species and habitats in cooperation with state and other Federal agencies, meet state and Federal water quality standards, and manage riparian vegetation to maintain streambank stability, etc. As discussed below under Clean Water Act, and the Executive Orders for floodplains and wetlands, sediment is the only pollutant with potential to increase during project implementation. Project work would result in no increase or a net reduction in sediment yield following completion of project work and subsequent recovery. The Forest Service sampled streams in the Project Area in 2014 and did not identify any Yellowstone cutthroat trout, although there is the possibility they could be present in low numbers and not detected. The project is consistent for all forest plan standards applicable to water quality and fisheries.

**Soils:** The Forest follows the Region 1 Soil Quality Guidelines for detrimental soil disturbance. Design Criteria provide that project work will be completed such that detrimental soil disturbance will not exceed 15% of a given unit area. Should that percent area be exceeded, remediation actions would be undertaken to bring total detrimentally disturbed area to 15% or less. Soil productivity within proposed project units is not projected to be permanently impaired as a result of project implementation.

**Scenery:** Forestwide standards state that as a general rule, the Visual Quality Objective (VQO) established by management area direction or project assessment will be met, and that management practices will be designed to blend with the natural environment. The Custer Forest Plan assigns a range of Visual Quality Objectives (VQOs) to management areas, but does not designate where each VQO applies within the management area. To establish VQOs for treatment units, forest personnel reviewed Forest Plan management area standards, and conducted project level analysis to determine which VQO applied. A 2008 Scenery Management System Report for the Custer National Forest was used as a reference for determining Visual Quality Objectives. With all of the scenery mitigations incorporated into this decision, the Selected Alternative meets applicable VQOs and is consistent with the Custer Forest Plan.

**Recreation:** The Greater Red Lodge Project is consistent with all applicable Custer Forest Plan goals, objectives, and standards applicable to Developed/Dispersed Recreation, Special Uses and Access. Forest-wide Management Standards for Recreation Management would be met because the Forest road and trail system within the project area would be managed to provide for public safety, accessibility, user distribution, a variety of travel opportunities, and further management area goals. Forest-wide Management Standards for Facilities, Transportation System Operation and Maintenance, Forest Transportation System would be met because the roads within the project area would continue to be managed to provide for administration and protection of the resources and the needs, health, and safety of the public. Specific standards for Management Areas B, D, F, G, M, and R would be met because the current and proposed management activities described in the Action Alternatives within these areas would continue. Activities such as commercial harvest, hazardous fuel reduction, post and pole, firewood, aspen regeneration, trail construction, trail, campground and road maintenance have been previously analyzed and found to be consistent with the management standards in areas they occur.

**Threatened and Endangered Species:** The Custer Forest Plan requires the Forest Service to comply with the Endangered Species Act as amended. The Forest Service prepared a Biological Assessment for threatened, endangered and proposed species and submitted it to the US Fish and Wildlife Service (USFWS). On July 22, 2014, the USFWS concurred with the FS determination that the proposed action is not likely to adversely affect the threatened grizzly bear, the threatened Canada lynx, or designated critical habitat for Canada lynx, as well as the no jeopardy determination for proposed wolverine. On August 12, 2014, the USFWS determined that wolverines do not warrant a listing as a threatened species under the Endangered Species Act. The FEIS was updated to also address wolverine as a sensitive species. Please refer to Response to Comments 267-318.

**Big Game:** The Custer Forest Plan requires Key Wildlife Species and their habitats to be managed in cooperation with state and other Federal agencies. Forest activities with potential for an impact on key wildlife species or key habitats will have wildlife considerations made early in the project analysis process. Mitigation measures will be taken as applicable to meet MA goals. Appendixes VII of the Forest Plan identifies elk, mule deer, and whitetail deer as major interest species that are commonly hunted, fished, or have special or unique habitat needs. The selected alternative includes design and mitigations measures to reduce impacts to big game. The Forest Service worked with MT Fish, Wildlife and Parks to address concerns about impacts to big game, which led to the development of Alternative 2 Modified in Willow-Nichols Creek. The Greater Red Lodge Project is consistent with all Forest Plan standards applicable to big game.

### ***Forest Plan Amendment (Plan Amendment 45)***

This decision authorizes a site specific Forest Plan amendment to exempt regeneration harvest in the Red Lodge Creek Project Area from the forestwide standard to “maintain and improve” habitat for the northern goshawk, the Forest Plan management indicator species for old growth forest. The amendment addresses effects at the treatment unit level to mature forest species with respect to the cumulative effect of the Greater Red Lodge Project and the Montana Department of Natural Resources and Conservation (MT DNRC) Palisades Timber Sale. This amendment was prepared pursuant to regulations at 36 CFR 219.17.

The Custer Forest Plan includes forest-wide standards that provide for a range of resource conditions across the Forest, and provides management area standards that provide additional requirements

within specific management areas. Each management area has a specific goal, and provides direction on how to resolve conflicts. The goal of MA G (the majority of the Red Lodge Creek project area and the MA where the goshawk nest stands are located) is to manage these areas for the maintenance and improvement of a healthy diverse forest and as a source of wood products for dependent local markets. The MA standard requires the Forest Service to analyze wildlife and fish values and potential impacts, and to identify and incorporate mitigation measures to the extent possible in that the goal of the Management Area is obtained.

With respect to conflict resolution, the Forest Plan states that efforts will be made to avoid or mitigate resource conflicts. If the responsible official determines that conflicts cannot be adequately mitigated, she/he will resolve the conflict in accordance with the management area goal, and if necessary, in consultation with affected parties.

The analysis presented in the FEIS identified a conflict with respect to management of habitat for mature forest species that cannot be resolved through avoidance or mitigation. Even if the no action alternative is implemented, there would still be an impact to mature forest species as a result of cumulative effects of vegetation management on adjacent lands. The State of Montana is clearcutting 700 acres of lodgepole pine forest adjacent to the Red Lodge Creek Project area, including approximately 156 acres in the Red Lodge Creek goshawk PFA (14 acres in the nest stand), and approximately 65 acres in the Thiel Creek goshawk PFA.

The Forest Service has a multiple use mandate, but not all uses can be managed on every acre. The management area goals provide direction for managing a variety of uses across the National Forest. The MIS standard to *maintain and improve* habitat applies forest-wide. It is unclear if this standard was meant to apply to every acre, and if it would provide for any reduction in habitat while managing for multiple uses.

Based on a conservative interpretation of the Forest Plan, any regeneration harvest would not maintain mid-age / mature habitat for mature forest species in the short term, as the treatment converts mid-aged/mature forest to a seedling-sapling age class. This conservative interpretation of the standard (no reduction in habitat for mature forest) appears to contradict more specific management direction such as:

- MA G – Even-aged management is the preferred silvicultural system, but uneven-aged management may be used where such methods are more appropriate for meeting ecological requirements and management of the species. Clearcutting may be used where it is the optimum regeneration method and meets the objectives for the area.
- MA D – Contains land suitable for timber management. Prescriptions may include either even aged or uneven aged systems.
- MA B – Management activities may include removal of wood products. Silvicultural systems may include either even aged or uneven aged systems. Regeneration systems may be appropriately applied to meet management area goals.

Of the 21 units proposed for clearcutting in the Red Lodge Creek Project Area, 17 units are in MA G, 3 units are in MA B, and 1 unit is in MA D. As previously noted, there is old growth in the project area, but not in treatment units. Forest vegetation in treatment units does not meet the definition of old growth as defined by Green and others (2007).

All of the mid-aged /mature forest identified in Table 10 below provides potential nest habitat in the Red Lodge Creek project area even though not all units are presently occupied by a goshawk nest or located in a defined PFA (post fledgling family area). PFAs have been identified around two known goshawk nest sites. These areas are currently supporting known active goshawk nests.

It is realistic to expect that mature forest species would be disturbed and displaced within or near active treatment units. A timing restriction would prohibit ground disturbing activities within each currently identified goshawk PFA from April 15 through August 15 to minimize potential for displacement of individuals within nest stands during breeding season and until fledglings are capable of sustained flight. By design, the proposed treatments create a mosaic of openings, thinned stands, and untreated areas as part of a fuels strategy. Habitat suitable for nesting throughout the entire project area is naturally fragmented, and the treatments would slightly increase fragmentation of the remaining mid-aged to mature forest in the project area. None of the stands proposed for treatment meet the old growth definition by Green and others (2007).

When considering the cumulative effect of the Greater Red Lodge Project with the effects of the MT DNRC Palisades Timber Sale, there is a potential that the two goshawk nest sites may not be used post treatment. However, as the Chapter 3 wildlife analysis notes, there is approximately 10,688 acres of potential nest habitat within the 21,871-acre GRLA cumulative effects analysis area (the GRLA project area) that could potentially provide additional habitat for nesting goshawk pairs. Potential nest habitat is abundant, and not a limiting factor at the project area level.

As previously noted, the Forest Plan notes that conflicts should be resolved in favor of the MA goal, and if necessary, in consultation with affected parties. As described in the FEIS Fire-fuels and Forest Vegetation analysis, regeneration harvest is proposed to reduce fire and mountain pine beetle hazards, to increase age class diversity in treated areas, and to improve resiliency of treated stands. As these sites are all located in the wildland urban interface (WUI), there is a public safety issue driving the need for treatment.

Regeneration harvest would convert the mid-aged / mature lodgepole stands to the seedling-sapling stage. Over time and absent a stand-replacing disturbance event, the stands would grow back. Treatment would not convert the areas to non-forest. As such, it is not an irreversible or irretrievable commitment of resources. Currently, the entire project area is at risk for stand replacement wildfire. By adding these mosaics of young forest, not all areas would be affected at the same time from a large disturbance, such as what occurred during the Ash Creek and Taylor Fires in 2012 that eliminated seven goshawk nest sites across the Ashland District. By creating age diversity in treated stands, the Forest Service is providing habitat for prey species in the short term and future nesting habitat over the long term.

This decision authorizes a site specific forest plan amendment for the units identified in Table 11, and exempts these treatment units from the forest-wide "Maintain and Improve" standard. The amendment resolves the conflict by amending the Forest Plan standard (E.4.e, page 17-18) to follow Forest Plan Management Area objectives (Plan Amendment 45).

**Table 11: Regeneration Harvest of Mid-aged to Mature Lodgepole Pine or Mixed Aspen/Conifer in RLC Project Area**

Unit	Alt 3 Modified	Veg Treatment	Fuels Rx	MA	In PFA
1T	29	GSH-AE <sup>1</sup>	PB	G	yes
2T	37	CC-AE	PB	G	
6T	10	CO-CC <sup>2</sup>	PB	G	
7T	28	CO-CC	PB	G	
11T	9	CC-AE	PB	G	yes
11AT	10	AE Regen	PB	G	yes
14T	3	AE Regen	PB	G	
16T	14	GSH-AE	PB	G	
16AT	3	CC-AE	PB	G	
16BT	8	CC-AE	PB	G	yes
17T	9	CC-AE	BB / PB	G	
19T	4	CC-AE	PB	G	
20F	3	AE Regen	PB	G	yes
20T	13	PC <sup>3</sup>	PB	G	
22T	9	CCR <sup>4</sup>	BB	B	
23T	36	CO-CC	BB	G	
24T	17	PC-AE	PB	B	
25T	7	CO-CC	PB	B	
26T	22	GSH-AE	PB	D	
38AT	18	CC-AE	PB	G	
38BT	32	CC-AE	PB	G	
	321				

1. GSH acres reflect acres of openings that would be created. Approximately 50% of each unit would not be untreated.
2. CO acres reflect acres of openings that would be created. The size of the unit is larger than the acres reflected in this table, and includes other prescriptions such as commercial thinning or noncommercial treatment.
3. PC acres reflect acres of openings that would be created. Approximately 2/3 of the stand would not be treated. In units 20T and 25T, openings range from one to three acres in size. In Unit 36T, openings range from one-third to one acre in size.
4. CCR prescription leaves reserve patches of mixed species other than lodgepole (primarily large Douglas-fir).
5. Units highlighted in gray are located within the Red Lodge Creek or Thiel Creek goshawk PFA boundary.

This decision also authorizes a site specific Forest Plan amendment to exempt Unit 31F (86 acres) in the Willow Nichols Creek Project Area from the forestwide standard to “maintain and improve” habitat for Brewer’s sparrow, the Management Indicator Species (MIS) for sagebrush habitat (Plan Amendment 45). The amendment addresses effects at the *treatment unit scale* with respect to a fuels reduction / grassland restoration treatment that involves prescribed fire on 86 acres in grassland-sagebrush habitat. This amendment was prepared pursuant to regulations at 36 CFR 219.17.

Unit 31f was previously part of a larger grouping of treatment units proposed to reduce fuels and restore grasslands on approximately 363 acres on the north side of West Fork Rock Creek Road. Units 28f, 29f, 30f and 31f were proposed for broadcast burning to reduce conifer colonization into grasslands and reduce hazardous fuels. Broadcast burn objectives would have reduced 60 to 80 percent of the

sagebrush within these units. As a result of coordination with MT Fish, Wildlife and Parks, I have decided to drop broadcast burning in Units 28f, 29f, and 30f to avoid negatively affecting mule deer winter range. Instead, conifers will be treated by lopping and scattering to reduce colonization in the grasslands. However, Unit 31f remains part of Alternative 2 modified and will be broadcast burned.

Unit 31T is located in MA R, which permits management activities to provide for public safety. As described in fire-fuels analysis of the FEIS, these fuels treatments are proposed to reduce fire hazards and to improve resiliency of treated stands in the wildland urban interface. Reducing shrub and grass loads through broadcast burning shifts flame lengths to less than 8 feet, allowing direct attack by ground resources. Public safety is the primary issue driving the need for treatment. This site specific forest plan amendment would exempt Unit 31F (86 acres) from the forest-wide “Maintain and Improve” standard for MIS sagebrush species Brewer’s sparrow, and would resolve the conflict to follow Forest Plan Management Area objectives (Plan Amendment 45).

The Forest Plan amendment to exempt Unit 31F from the standard acknowledges that the Brewer’s sparrow may still be impacted in Unit 31f. However the unit is 86 acres, which is much smaller than the 363 acres that were originally proposed under Alternative 2. I believe reduction in treatment from 363 to 86 acres adequately addresses wildlife concerns while providing for public safety.

#### **Application of FSM 1926.51 Directives Not Significant Criteria**

My determination of whether or not this amendment is significant was conducted using the process in the Forest Service Planning Manual, 1926.51. The manual states that changes to the land management plan [Forest Plan] that are not significant can result from four specific situations.

**1. Actions that do not significantly alter the multiple use goals and objectives for long-term land and resource management.**

The amendment to exempt specific treatment units from the forestwide maintain and improve habitat standard for the MIS northern goshawk does not alter the multiple-use goals and objectives for long-term land and resource management on the Custer National Forest, nor does it impact Forest Plan objectives or outputs.

The amendment to exempt 86 acres in unit 31F from the forestwide maintain and improve habitat standard for the MIS Brewer’s sparrow does not alter the multiple-use goals and objectives for long-term land and resource management on the Custer National Forest, nor does it impact Forest Plan objectives or outputs.

**2. Adjustments of management area boundaries or management prescriptions resulting from further onsite analysis when the adjustments do not cause significant changes in the multiple-use goals and objectives for long-term land and resource management.**

The amendment to exempt specific treatment units from the forestwide maintain and improve habitat standard for the MIS northern goshawk and to exempt 86 acres in Unit 31F does not change any management area boundaries, nor does the amendment impact multiple-use goals and objective for long-term land and resource management.

#### 4. Minor changes in standards and guidelines.

The amendment for MIS northern goshawk is only applicable to specific treatment units in the RLC project area, and exempts regeneration harvest from the forestwide maintain and improve habitat standard for the MIS northern goshawk. The amendment does not change the Forest Plan standard or any guidelines.

The amendment for Brewer's sparrow is limited to 86 acres in Unit 31F in the WNC project area. It also does not change the Forest Plan standard or any guidelines.

#### 5. Opportunities for additional projects or activities that will contribute to achievement of the management prescription.

The amendment is only applicable to specific treatment units for the Greater Red Lodge Project.

**Conclusion – Significance/Non-significance:** There is approximately 10,688 acres of potential nest habitat within the 21,871-acre GRLA cumulative effects analysis area (the GRLA project area) that could potentially provide habitat for nesting goshawk pairs. Treatment will create approximately 321 acres of openings in the RLC project area, of which approximately 29 acres are in the Thiel Creek post fledgling family area (PFA), and 30 acres are in the Red Lodge Creek PFA. The reduction in about 321 acres of potential nesting habitat is not a significant impact when considering the 10,688 acres of potential nest habitat that is available in the project area (less than two percent reduction). Potential nest habitat is abundant, and not a limiting factor at the project area level.

Based upon consideration of the four factors identified in the Forest Service Planning Manual, 1926.51, and considering the Forest Plan in its entirety, I have determined that the forest plan amendment to exempt specific units in the Red Lodge Creek Project Area from maintain and improve habitat standard for MIS northern goshawk is not significant. Additionally, I have determined that the forest plan amendment to exempt Unit 31 from the maintain and improve habitat standard for Brewer's sparrow in Willow-Nichols Creek Project Area is not significant. The selected alternative minimizes impacts to both northern goshawk and Brewer's sparrow to the extent practicable, while still meeting the purpose and need.

Other resource specific management standards are discussed in Chapter 3 by resource area in the FEIS, and briefly in this ROD. No additional plan amendments are needed.

### ***Forest Plan Consistency Summary***

My decision complies with all Forest Plan forestwide and management areas standards with the inclusion of the Forest Plan Amendment to exempt regeneration harvest in the Red Lodge Creek Project Area from the forestwide standard to *maintain and improve* habitat for the MIS northern goshawk.

Standards and guidelines established in the Forest Plan that are pertinent to the various resources potentially affected by the alternatives are described in more detail in the FEIS.

All required interagency review and coordination has been accomplished; new or revised measures resulting from this review have been incorporated. There is documentation in the record showing coordination with other agencies such as the US Fish and Wildlife Service, Montana State Historic

Preservation Office, Montana Department of Fish, Wildlife and Parks and interested members of the public. See also EIS, Chapter 4 Consultation, Coordination & Public Comment.

## **NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)**

The provisions of the National Environmental Policy Act (NEPA) have been followed as required under 40 CFR 1500-1508. This Record of Decision and FEIS comply with the intent and requirements of the NEPA. Alternatives in the FEIS were developed and analyzed under full public disclosure. This Record of Decision discusses the decision I have made and the reasons for making the decision.

## **NATIONAL FOREST MANAGEMENT ACT (1976)**

The National Forest Management Act (NFMA) of 1976 (P.L. 94-588) governs the administration of national forests, and was an amendment to the Forest and Rangeland Renewable Resources Planning Act of 1974. NFMA requires that resource plans and permits, contracts, and other instruments for the use and occupancy of National Forest System lands shall be consistent with the land management plan (i.e. the Forest Plan). NFMA also requires public participation, including adequate notice and the opportunity to comment on projects that affect NFS lands.

NFMA also requires that several specific findings be document at the project level for forest management, including the following:

***Suitability for Timber Production:*** NFMA requires no timber harvesting shall occur on areas classified as not suited for timber production, except salvage sales, sales necessary to protect other multiple-use values, or activities that meet other objectives on such lands if the forest plan established that such actions are appropriate.

*The silvicultural diagnosis process and the Forest Plan were used to determine that all areas associated with this project are suitable for timber harvest or are planned to protect other multiple use values (such as a developed recreation site and trails). There is reasonable assurance that lands can be restocked within five years of final harvest. None of the areas considered for harvest have been withdrawn from timber production.*

***Maintenance of the Diversity of Plant and Animal Communities:*** Forest Plan goals, objectives, standards, and guidelines address maintaining a diversity of vegetation and habitats across the forest to meet a variety of habitat for wildlife species and to provide for sustained yield of timber products.

*One component of the purpose and need for the project is to maintain / improve resiliency of forest vegetation and grasslands. Lack of large disturbance events and fire suppression has generally resulted in stand conditions that are less able to cope with large natural disturbance events such as wildfire and beetle epidemics. The project will increase resiliency to disturbances by restoring grasslands, increasing the diversity of species (including aspen, limber pine and ponderosa pine), increasing age class diversity including regeneration of lodgepole pine and aspen, promoting large diameter Douglas-fir stands, and variable densities of vegetation to reduce susceptibility to insect and disease infestations. Increasing vegetation diversity would promote habitat diversity, which in turn would help maintain a diversity of plant and animal species. Prescribed project design/mitigation addresses specific plant and animal community needs.*

***Appropriateness of Even-Aged Management and Optimality of Clearcutting:*** NFMA directs that clearcutting be used only where “it is determined to be the optimum method”. Other even aged methods can be used where “determined to be appropriate.”

*Clearcutting was determined to be the optimum regeneration method for meeting management objectives for each of these areas by the project silviculturist. Criteria used to make this determination included; species composition relative to management direction and availability of desired species for seed sources, species susceptibility to observed insect agents, presence of disease infections which would be transmitted to the regenerated stand or where non-susceptible species conversion is necessary, and stands subject to wind throw if residual trees were retained.*

***NFMA Findings for Vegetation Manipulation:*** All proposals that involve vegetation manipulation of tree cover for any purpose must comply with the following requirements.

- **Best suited to the multiple-use goals stated in the Forest Plan for the area with impact.** *All treatments are consistent with multiple use Forest Plan direction and address the project purpose and need.*
- **Assure that the lands can be adequately restocked within 5 years.** *All regeneration harvests and small openings created during project implementation would be monitored (1st, 3rd, and 5th year) to ensure forest cover reestablishment per the stocking objectives stated in the design criteria in Chapter 2 – Design and Mitigation and monitoring item E2 in the Forest Plan (pg. 107).*
- **Not chosen because they will give the greatest dollar return.** *Although timber harvest associated with this project will generate revenue, the financial returns were not the specific or sole drivers for the selection of treatments. The ability to meet the project’s purpose and need drove the prescribed treatments.*
- **Be chosen after considering the effects on residual trees and adjacent stands.** *The effects to residual trees and adjacent stands were considered in the interdisciplinary development of this project.*
- **Be selected to avoid permanent impairment of site productivity and to ensure conservation of soil and water resources.** *The Soils and Water BMPs (FEIS, Appendix D) and project design/mitigation to ensure conservation of the resources.*
- **Be selected to provide beneficial effects to water quality and quantity, wildlife and fish habitat, regeneration of desired tree species, forage production, recreation uses, aesthetic values, and other resource yields.** *Following Forest Plan and management area direction, an interdisciplinary team considered all of these resources in the context of the surrounding landscape and this project as documented in the project file.*
- **Be practical in terms of transportation and harvesting requirements and total costs of preparation, logging, and administration.** *Standard logging systems and log hauling is prescribed for this project and has been determined to be practical for this project.*

- **Prior to harvest, stands of trees throughout the National Forest System shall generally have reached the culmination of mean annual increment (CMAI) of growth.** *Treatments associated with this project have generally met the rotation age within the Forest Plan that considers CMAI.*

## ENDANGERED SPECIES ACT

The Custer National Forest has fulfilled consultation requirements for threatened, endangered, and proposed species (grizzly bear, lynx, and wolverine). The Biological Assessment for the project reached conclusions of, *not likely to adversely affect grizzly bear, lynx, and lynx critical habitat, and not likely to jeopardize* for wolverine.

Our grizzly bear analysis showed that at two different spatial scales – the project area and a grizzly bear home range scale (BAU) - impacts on secure habitat during the project were 6% and 1%, respectively. At a level meaningful to grizzly bears, 82% of the Rock Creek BAU would be secure during project implementation. In addition, we considered total open motorized routes (TMARD) as the more conservative measure of the impacts of access on grizzly bears (this includes all routes with motorized use, including those used only for administrative uses and not by the public). The project (during implementation) complies with the recommendation of less than 2 miles/square mile needed to maintain habitat values for grizzly bears.

Our lynx analysis showed that 45 acres of multi-story mature or stand initiation habitats were impacted by the project. These are the habitats that the Forest Plan singles out as most important to lynx and snowshoe hare. Our emphasis was on treating the stem exclusion stands and to accelerate their transition to multi-story mature, in keeping with our Forest Plan direction (NRLMD, Guideline VEG G10). Because this project is fuel reduction in WUI, we used our exemptions for the 45 acres. The Custer Forest was allowed 13,800 acres of exemptions in the Incidental Take Statement in the Biological Opinion on the NRLMD amendment. To date, this project is the first project to treat lynx habitat in the WUI; therefore we have only used 45 acres of our exempted take (this correction on acres used was cleared up by the FWS and Forest Wildlife Biologist on March 19, 2015).

On July 22, the USFWS concurred with these determinations. Therefore, pursuant to 50 CFR 402.13 (a), consultation on these species and critical habitat has been completed, and the CNF has satisfied the requirements of the Endangered Species Act.

The Forest Service is keeping abreast of changes to the status of wolverine, and this FEIS discloses that the Greater Red Lodge Project would not like jeopardize wolverine as a Proposed Threatened Species, or may impact individuals or habitat, but will not likely contribute to a trend towards federal listing, or cause a loss of viability to the population or species (MIIH) if wolverine are a Sensitive Species.

## MIGRATORY BIRD TREATY ACT (16 U.S.C. 703-712)

Under the Migratory Bird Treaty Act (MBTA), which implements various treaties and conventions for the protection of migratory birds, it is unlawful to take, kill or possess any migratory birds, except as regulated by authorized programs. Executive Order (E.O.) 13186 is associated with the MBTA and requires agencies to ensure that environmental analyses evaluate the effects of federal actions and agency plans on migratory birds, with emphasis on Species of Concern (SOC).

The FEIS evaluates the effects of the project on migratory birds, and includes a design criterion to reduce disturbance to nesting song birds. The design criteria precludes ground disturbance in aspen regeneration treatment units (AE Regen) from May 15 – July 15 (Units 2T, 11AT, 14T, 20F, 38T).

## **BALD AND GOLDEN EAGLE PROTECTION ACT (16 U.S.C. 668)**

The Bald and Golden Eagle Protection Act (BGEPA) contains language similar to the Migratory Bird Treaty Act (MBTA), but specific to eagles. Under the Bald and Golden Eagle Protection Act (BGEPA), it is unlawful to take (to include harm, harass), kill or possess any bald or golden eagle, except as regulated by authorized programs. The Forest Service has a responsibility to ensure that environmental analyses evaluate the effects of federal actions and agency plans on bald and golden eagles.

The FEIS considers the effects of the project on golden eagle under the discussion of Migratory Birds, and on bald eagles, which are discussed as a sensitive species.

## **FEDERAL CLEAN WATER ACT (CWA)**

This Act requires Federal agencies to comply with all Federal, state, and local requirements, administrative authority, process and sanctions related to the control and abatement of water pollution (CWA, Sections 313(a) and 319(k), USC 2002). Section 303 of the CWA gives authority to individual States to develop, review, and enforce water quality standards, requires the States to identify existing water bodies that do not meet water quality standards, and develop plans to meet them (TMDL's - total maximum daily load). The MD Department of Environmental Quality (DEQ) regulates water quality in Montana. Section 404 of the Act gives authority to the Corps of Engineers to review and permit activities that may impact navigable waters of the U.S, including wetlands.

The EIS analyzes impacts to water quality, wetlands, and floodplains. As noted in the EIS, the project will be constructed in compliance with best management practices to protect soil and water quality (see Appendix D of the FEIS). Butcher Creek, Willow Creek, and West Red Lodge Creek are classified as water quality limited stream segments by MT DEQ's 2012 version of the 303d list or listed as segments in need of total maximum daily load (TMDL) developed by the MT DEQ. The project will employ effective BMPs to ensure that water quality changes, if any, would be negligible and would be considered "naturally occurring" under Montana water quality standards (ARM 17.30.602 (19)). (EA, p. 3.73 – 3.75).

Sediment is the only pollutant with potential to increase during project implementation. Project work would result in no increase or a net reduction in sediment yield following completion of project work and subsequent recovery. In the case of the Nichols Creek Road, road reconstruction and BMP implementation will address ongoing water quality impairment concerns. Short-term increases associated with crossing construction and reconstruction would be authorized under the 318 permitting process per ARM 75-5-318. As such, project work will be in compliance with the Federal Clean Water Act and Montana water quality law.

Project work will be in compliance with Montana SMZ law and associated rules through implementation of proposed design criteria. Further, project work will be in compliance with all other regulatory authorities via implementation of design criteria and pertinent BMPs.

All required water quality permits will be acquired prior to ground-disturbing activities taking place. These permits may include, but not be limited to 124 (Stream Protection Act), 318 (Short Term Water Quality Standard for Turbidity), and Nationwide 404 (Federal Clean Water Act) permits.

## **EXECUTIVE ORDERS FOR WETLANDS (11990) & FLOODPLAINS (11988)**

Executive Order (EO) 11990 provides that all federal agencies must take action to minimize the destruction, loss or degradation of wetlands. The Selected Action complies with EO 11990 to minimize the destruction, loss, or degradation of wetlands. Design/mitigation measures provide that vehicles and logging machinery would not be operated within 50 feet of wetlands except for designated crossings, and materials would not be deposited in stream or wetlands. As noted in Section 10 – permits, the Forest Service will obtain any applicable permits to complete the project, including a Section 404 permit if necessary.

E.O. 11988 provides that each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities for (1) acquiring, managing, and disposing of Federal lands, and facilities; (2) providing Federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.

Wetlands and riparian areas would be buffered and avoided in stands where mechanical treatment would occur. SMZ rules would be extended to encompass isolated wetlands. Other than at temporary crossings and on existing roads, machinery would not operate in wetlands or riparian areas. Ground disturbance associated with machinery reaching into wetlands or riparian areas to remove fuels is expected to be minimal and generally a result of dragging out of the area. Taken together, any impacts on water quality are projected to be minimal and short-lived. Through implementation of temporary crossing design criteria, impacts on riparian areas, wetlands and floodplains would be minimized in extent and duration. Under the record of success in BMP and SMZ implementation and effectiveness (see FEIS, Chapter 3 on Water Resources), the chance of long-term detrimental impacts to wetlands, riparian areas, and floodplains through project implementation is minimal.

## **EXECUTIVE ORDER 12898 - ENVIRONMENTAL JUSTICE**

Executive Order 12898 directs Federal agencies to integrate environmental justice considerations into federal programs and activities. Environmental justice means that, to the greatest extent practical and permitted by the law, all populations are provided the opportunity to comment before decisions are rendered, or are allowed to share in the benefits of, are not excluded from, and are not affected in a disproportionately high and adverse manner by government programs and activities affecting human health or the environment (RO 13898 and Departmental Regulation 5600-002, “Environmental Justice”).

The FEIS discloses that minority populations within the analysis area do not meet the CEQ’s Environmental Justice criterion (DEIS, p 3-269) and that populations within the analysis area do not meet the CEQ’s Environmental Justice criterion for low-income.

As the project will not disproportionately impact environmental justice populations, my decision is consistent with EO 12898.

## **NATIONAL HISTORIC PRESERVATION ACT**

The CNF designed the *Wildland Urban Interface and Large Scale Hazardous Fuels Reduction Site Identification Strategy (SIS)* to address the effects that large scale, landscape level hazardous fuel reduction projects may have on cultural resources and identify measures to reduce or eliminate those effects. The SIS was approved as part of the programmatic agreement between the USDA-Forest Service-Northern Region, the Advisory Council on Historic Preservation and the Montana State Historic Preservation Officer (MT SHPO). The SIS protocol is followed for this project in compliance with the NHPA.

## **NATIVE AMERICAN TREATY RIGHTS**

Many tribes have aboriginal ties and use area within the Custer National Forest, including Crow, Eastern Shoshone, and the Shoshone-Bannock. The Crow have treaty rights under the Fort Laramie Treaties to use the National Forests for hunting and gathering. None of the alternatives would affect these treaty rights.

## **2001 ROADLESS AREA CONSERVATION - FINAL RULE, 36 CFR 294**

The 2001 Roadless Rule prohibits road construction, road reconstruction and timber cutting, sale and removal in inventoried roadless areas with some exceptions. This decision authorizes approximately 4 acres of noncommercial thinning in the Burnt Mountain IRA in an area designated MA G. The treatment will thin a small diameter lodgepole pine stand that is infected with gall rust. A hand crew would most likely walk into the site on an existing road (#21411) and complete the work with chain saws. Stumps would be cut to a height not to exceed four inches above ground/rock to minimize impacts to the natural and undeveloped state of the IRA. The unit is adjacent to an existing Maintenance Level 2 road (#21411) near the edge of the roadless boundary (see FEIS, Appendix A, Map 6). The proposed treatment in the IRA under Alternative 3 is a permissible activity in Roadless, falling into the category: cutting, sale, or removal of generally small diameter trees to maintain or restore ecosystem composition and structure. This decision also authorizes approximately 0.2 miles road decommissioning of a system not needed road (Road 21415B) in the IRA.

The FEIS considers effects of the project on Roadless Areas, and concludes that this treatment will not detrimentally affect the five wilderness characteristics of the IRA over the long term, and would enhance resiliency of the small diameter lodgepole pine to disturbances such as insects/disease and wildfire. The treatment would not affect the existing classes of dispersed recreation, or other locally identified unique characteristics. There may be some short term effects associated with the noise from operating chainsaws in the IRA and activities occurring outside the IRA that could impact opportunities for solitude or primitive unconfined recreation. The 4-acre treatment is located adjacent to an existing dead end road (#21411) that is closed to public motorized use, and away from a developed trail that provides wilderness access. Decommissioning 0.2 miles of the 21415B Road would enhance roadless character by removing a road segment from the IRA. Impacts to the IRAs as described in this analysis are not of sufficient magnitude to create negative trends or threats to the overall inventoried roadless resource.

## **ENERGY REQUIREMENTS**

NEPA regulations in 40 CFR 1502.16 [EISs] require a discussion of project energy requirements and natural or depletable resource requirements, along with conservation potential of alternatives and mitigation measures in an EIS.”

Energy (fuel) would be required to perform management activities proposed in all action alternatives, including but not limited to: harvesting and transportation of timber products, conducting fuels treatments such as excavator piling, implementing prescribed burning activities, road reconstruction activities, and road decommissioning. Energy requirements are minor and the project activities do not lend themselves to particular energy conservation measures. Activities for the project involve a short-term and non-significant expenditure of energy. The proposed project would not involve construction or maintenance of any new facilities.

## **FEDERAL CAVE RESOURCES PROTECTION ACT**

This Act is to secure, protect, preserve and maintain significant caves to the extent practical. Site features and field review substantiate that no caves are in the area. No known cave resources will be affected by this proposal.

## **12. IMPLEMENTATION**

In September 2014, the Custer Gallatin National Forest, Beartooth Ranger District released a Final Environmental Impact Statement and Draft Record of Decision for the Greater Red Lodge Vegetation and Habitat Management Project and made those documents available and subject to a pre-decisional objection review process pursuant to 36 CFR 218, subparts A and B.

The Deputy Regional Forester (Objection Reviewing Officer) received objections on the project from six individuals or organizations. The Deputy Regional Forester read the objections and reviewed the Final Environmental Impact Statement (FEIS), the draft Record of Decision Notice (DROD), the content in the project file, as well as considered the comments submitted during the opportunities for public comment for this project.

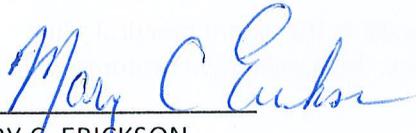
The regulations allow, in part, for the parties to meet in order to resolve the issues (36 CFR 218.1 l(a)). The Deputy Regional Forester held an objection resolution meeting by conference phone on December 15, 2014, and the objector’s various issues and concerns were discussed. None of the objectors’ issues were resolved.

The Deputy Regional Forester reviewed the assertions that the project violates various environmental laws, regulations, policies, and the Forest Plan. This review found that the project is in compliance with these laws, regulations, policies, and the Forest Plan except for those instances where instructions were given for the Forest to provide additional or clarifying information to better demonstrate compliance with law, regulation, or policy. The Deputy Regional Forester noted in his December 22, 2014 response letter that once these instructions were completed the project and analysis would be in full compliance with all laws, regulations, policies, and the Forest Plan, and the Forest Supervisor could sign the Record of Decision for the project.

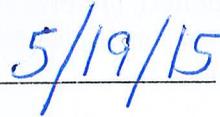
The Forest has addressed the concerns identified by the Deputy Regional Forester in his Reviewing Officer's response letter. The Notice of Availability of the April 2015 FEIS was published in the Federal Register on April 17, 2015, the public was notified of its availability, and the April 2015 FEIS is posted on the Custer Gallatin web site (36 CFR 218.12). This Record of Decision is being signed 30 days after the Notice of Availability in the Federal Register. Implementation of the project may begin immediately.

### 13 CONTACT PERSON

Copies of the FEIS and Record of Decision are available on the Custer Gallatin National Forest Webpage at <http://www.fs.usda.gov/custergallatin>. An electronic copy of the FEIS and Record of Decision is available upon request from the Beartooth Ranger District, Custer Gallatin National Forest - Beartooth Ranger District, 6811 Highway 212 South, Red Lodge, MT 59068, 406-466-2013. For additional information concerning this decision, contact Amy Waring, NEPA Team Leader, or 406-255-1451.



MARY C. ERICKSON  
Forest Supervisor  
Custer Gallatin National Forest



Date