

# EXISTING CONDITION OF INVENTORIED ROADLESS

## INTRODUCTION

In 1972, the Forest Service initiated a review of National Forest System roadless areas larger than 5,000 acres to determine their suitability for inclusion in the National Wilderness Preservation System. The second and final review process, known as Roadless Area Review and Evaluation II (RARE II), resulted in a nationwide inventory of roadless areas. Since the completion of RARE II, Congress has designated some of these areas as Wilderness.

## REGULATORY FRAMEWORK

### Deerlodge Forest Plan Direction

The wilderness integrity of each of these identified areas on the Deerlodge National Forest was discussed in Appendix C to the Final Environmental Impact Statement for the Deerlodge Forest Plan (1987). Attributes analyzed in the EIS were: Natural Integrity and Appearance, Opportunities for Solitude, Primitive Recreation Opportunities, Other Features, and Manageability and Boundaries. These same attributes are used to analyze the effects of the Basin Creek Hazardous Fuels Reduction project on the Basin Creek Roadless Area.

The analysis of roadless lands documented in Appendix C to the FEIS for the Deerlodge Forest Plan describes each roadless area, the resources and values considered, the range of alternative land uses studied, and the effects of management under each alternative. As a result of that analysis, some roadless areas were recommended for inclusion in the National Wilderness Preservation System, and others were assigned various non-wilderness prescriptions. The Basin Creek Roadless Area was excluded in wilderness position papers and was absent from the Montana Wilderness Bills. The Basin Creek Roadless Area was not recommended for inclusion in the Wilderness Preservation System, was not included in the Montana Wilderness Bills, and was given non-wilderness prescriptions.

The management areas and their acreages inside the Basin Creek Roadless Area are:

Management Area	Acreage within the Basin Creek Roadless Area
C3	32 acres
D2	1,266 acres
E1	8 acres
J3	693 acres
MC3	3,623 acres

Management Areas in the inventoried roadless portion of the project area where treatment is proposed include C3, D2, J3, and MC3. Forest Plan direction for the Management Areas is discussed in Chapter 2.

### Roadless Area Conservation Rule

Prior to the national Roadless Area Conservation Rule (RACR), direction for the management of inventoried roadless areas was specified in individual land and resource management plans for each unit of the National Forest System. On May 4, 2001 the Secretary of Agriculture announced the USDA would implement the Roadless Rule. The Rule was challenged by nine lawsuits in federal district courts in Idaho, Utah, North Dakota, Wyoming, Alaska, and the District of Columbia. On May 10, 2001, the Idaho Federal District Court issued a preliminary injunction order prohibiting USDA and the Forest Service from implementing the Roadless Rule. This action was appealed to the Ninth Circuit Court of Appeals by interveners in the Idaho cases. On July 27, 2001, interim agency directives were issued by the Forest Service for roadless areas. These interim directives expired on June 14, 2003. On April 14, 2003, the Ninth Circuit Court of Appeals issued a mandate to the Idaho District Court reversing and remanding the lower court's action. The Roadless Area Conservation Rule went back into effect as a result of this ruling. On July 14, 2003, the U.S. District Court for the District of Wyoming issued a permanent injunction and set aside the roadless rule. (Roadless Section, Project File) The court found the roadless rule was promulgated in a manner that was illegal, both procedurally and substantively. The court ruled against the government on 5 of 6 claims under NEPA, and also found the roadless rule violated the Wilderness Act of 1964 because the timber harvest and road construction prohibitions constitute establishment of *de facto* wilderness (only Congress can designate wilderness areas). This decision has been appealed to the U.S. Tenth Circuit Court of Appeals.

The Final Rule and Record of Decision for Roadless Area Conservation (36 CFR Part 294 RIN

0596-AB77) §294.13 Prohibition on timber cutting, sale, or removal in inventoried roadless areas stated:

- (a) Timber may not be cut, sold, or removed in inventoried roadless areas of the National Forest System, except as provided in paragraph (b) of this section.
- (b) Notwithstanding the prohibition in paragraph (a) of this section, timber may be cut, sold, or removed in inventoried roadless areas if the Responsible Official determines that one of the following circumstances exists. The cutting, sale, or removal of timber in these areas is expected to be infrequent.
  - (1) The cutting, sale, or removal of generally small diameter timber is needed for one of the following purposes and will maintain or improve one or more of the roadless area characteristics as defined in § 294.11.
    - (i) To improve threatened, endangered, proposed, or sensitive species habitat; or
    - (ii) To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.
  - (2) The cutting, sale, or removal of timber is incidental to the implementation of a management activity not otherwise prohibited by this subpart.
  - (3) The cutting, sale, or removal of timber is needed and appropriate for personal or administrative use, as provided for in 36 CFR 223; or
  - (4) Roadless characteristics have been substantially altered in a portion of an inventoried roadless area due to the construction of a classified road and subsequent timber harvest. Both the road construction and subsequent timber harvest must have occurred after the area was designated

an inventoried roadless area and prior to January 12, 2001. Timber may be cut, sold, or removed only in the substantially altered portion of the inventoried roadless area.

## **Wilderness Act of 1964**

The Wilderness Act defines four requisite attributes of wilderness: natural integrity, apparent naturalness, outstanding opportunities for solitude and remoteness, and opportunities for primitive recreation. These attributes are applied to the conditions inside the boundaries of wilderness. Although the experience of wilderness visitors might be affected by activities outside the wilderness boundary, the Wilderness Act does not require that adverse effects associated with those activities be mitigated. In addition, the system provides for rating four supplemental wilderness attributes: outstanding ecological, geological, scenic, and historical features. They are supplementary because their presence is permissible, but not required by the Wilderness Act.

## **EFFECTS ANALYSIS METHODS**

The following roadless area characteristics and wilderness attributes are the basis for describing the existing condition of the Basin Creek Inventoried Roadless Area. They are also the basis for evaluating the effects of the alternatives on the roadless resource.

### **Roadless Area Characteristics**

The Forest Service Roadless Area Conservation FEIS on pages 1-1, 1-3, 1-4, 3-3, 3-5, and 3-7 (Project File, Roadless section) describes nine characteristics or features that are often present in many inventoried roadless areas. Current conditions of these nine resources or features are described below for the Basin Creek Roadless Area. The Forest Service Roadless Area Conservation FEIS is incorporated by reference into the Basin Creek Hazardous Fuels Reduction Project analysis.

- High quality or undisturbed soil, water, and air
- Source of public drinking water
- Diversity of plant and animal communities
- Habitat for threatened, endangered, proposed candidate, and sensitive species
- Primitive, semi-primitive non-motorized, and semi-primitive motorized classes of recreation opportunities
- Reference landscapes
- Natural appearing landscapes with high scenic quality
- Traditional cultural properties and sacred sites
- Other locally identified unique characteristics

## Wilderness Attributes

Four requisite wilderness attributes are described in the Wilderness Act -- natural integrity, apparent naturalness, outstanding opportunities for solitude and remoteness, and primitive recreation. In addition, the system provides for rating four supplemental wilderness attributes: outstanding ecological, geological, scenic, and historical features. They are supplementary because their presence is permissible, but not required by the Wilderness Act.

- **Natural Integrity:** The extent to which long-term ecological processes are intact and operating
- **Apparent Naturalness:** The degree to which the impacts documented in Natural Integrity are apparent to most visitors
- **Solitude:** A personal, subjective value defined as the isolation from the sights, sounds, and presence of others and from the developments and evidence of humans
- **Remoteness:** Perceived condition of being secluded, inaccessible, or out of the way
- **Primitive Recreation Opportunities:** Characterized by meeting nature on its own terms, without comfort and convenience facilities
- **Special Features:** Unique ecological, geological, scenic, and historical features of an area
- **Manageability:** The ability to manage an area to meet the size criteria for Wilderness consideration, which is a minimum of 5,000 acres, and maintain the wilderness attributes

## BASIN CREEK ROADLESS AREA (01-430) EXISTING CONDITION

The Basin Creek Roadless Area was identified during the RARE II inventory. It comprises 9,888 acres, of which 230 acres are privately owned. The area straddles the Continental Divide on the north side of the Highland Mountain Range. It is roughly a north-south oval, 6 miles by 3 miles. (**Appendix B, Map 28 – Inventoried Roadless Boundary**).

The area consists of the Basin Creek Drainage, a municipal watershed managed as a part of the community of Butte's water supply. Parts of the water supply system, a dam and reservoirs, are located on the northeast corner of the area. A second dam, lying upstream, was breached in 1979.

Elevations range from 5,880 to 7,200 feet with no real prominent points on the landscape. Numerous drainages bisect the area and large granite boulders are scattered throughout. The dominant feature in the Basin Creek Roadless Area is the Continental Divide.

Basin Creek Roadless Area contains lands classified primarily as Management Area MC3, but with inclusions of Management Areas C3, D2, E1, and J3. The roadless area contains 771 acres of the Basin Creek Research Natural Area.

Access to the roadless area is limited due to the rough terrain and lack of development in the area. The primary access is the Bear Gulch Trail #108 which is a summer motorized trail. It is accessed from the Basin Creek county road and Highland Road No. 84 from Roosevelt Drive to the Forest boundary near Feeley. Access along the Highland Road is limited to the junction of Highland Road No. 84 and No. 8520 and Bear Gulch Trail #108 termini.

Past activities in the roadless area include mining-related projects scattered throughout the IRA. Most of the area was harvested, and then slashed and burned, during the mid to late 1800's to support Butte's mining activities. Old logging skid trails and unimproved abandoned roads are present. Currently, three cattle grazing allotments are located in the area.

A description of the roadless area characteristics is provided in the Forest Plan EIS, Appendix C, pages C-51 through C-57. (Project File, Roadless section) Excerpts from the descriptions follow and will serve as a "baseline" from which to measure changes.

## **Roadless Area Characteristics**

### ***High Quality or Undisturbed Soil, Water, and Air***

There is no high quality soil in the IRA partly due to extensive logging that occurred in the area in the late 1800's and early 1900's. Woody debris is low and there is no organic horizon. The water quality within the area is generally high. One exception to this is the mercury detected in the water below the Highland Mine.

### ***Source of Public Drinking Water***

Parts of the IRA serve as a municipal watershed for the community of Butte. The closed status of the watershed meets the State's non-filtration criteria. The Basin Creek reservoir system that lies partially within the roadless area supplies up to 40% of the drinking water for the city of Butte.

### ***Diversity of Plant and Animal Communities***

Vegetative cover consists primarily of lodgepole pine forest with interspersed Douglas fir, sagebrush parks, and small narrow stringers of riparian vegetation. The lodgepole pine is mature and approximately 100 years old. Pockets of old growth lodgepole pine occur in the RNA. A complete discussion of plant communities is covered in the Vegetation section. Many species of game animals inhabit the Basin Creek area and are discussed in detail in the Wildlife section.

### ***Habitat for Threatened, Endangered, Proposed Candidate, and Sensitive Species***

Habitat exists in the IRA for threatened, endangered, and sensitive species including west slope cutthroat trout, boreal toad, lynx, gray wolf, goshawk, black backed woodpecker, wolverine, and fisher, as discussed in the Wildlife section and reported in the Project File. No known sensitive plants were found in the IRA, but *Penstemon lemhiensis* (Lemhi penstemon) is found in the very upper reaches of Basin Creek. There are no known federally listed plant species in the area. Threatened, endangered, and sensitive plants are covered in the Vegetation section.

### ***Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized Classes of Dispersed Recreation***

The area within the IRA boundary is predominantly classified as Semi-Primitive Motorized (SPM) for both summer and winter recreation. This ROS class covers the main core of the IRA. The eastern edge and the southern tip of the area are classified as Roded Natural (RN). SPM is characterized by predominantly natural or natural-appearing landscapes with a low concentration of users and a moderate probability of experiencing isolation from other users. Motorized use is permitted. RN is characterized by predominantly natural-appearing landscapes with equal probability of encountering other users and experiencing isolation from other users. Motorized use is permitted.

### ***Reference Landscapes***

Reference landscapes can provide comparison areas for evaluation and monitoring of the effects of management activities over long periods of time and on large landscapes. These areas provide a natural setting that may be useful as a comparison to study the effects of more intensely managed areas.

With very little management activity within the IRA boundary other than trail maintenance and fire control, the area could serve as a reference landscape.

### ***Natural Appearing Landscapes with High Scenic Quality***

The Basin Creek Roadless area is visible from Roosevelt Drive, the Highland Road, and the community of Butte. The area has high scenic integrity. There is minimal deviation from this rating with the exception of the reservoirs on the east side of the roadless area. The IRA is steep with a nearly continuous conifer canopy interspersed with sagebrush parks. Rock outcrops create some variety across the landscape. The area has not been modified by management activities since the turn of the century and appears natural.

### ***Traditional Cultural Properties and Sacred Sites***

Historic mining and mining-related sites are located throughout the area.

### ***Other Locally Identified Unique Characteristics***

The Continental Divide is a unique feature of the Basin Creek Roadless Area. A portion of the Basin Creek RNA is located in the IRA.

## **Wilderness Attributes**

### ***Natural Integrity***

Impacts to natural integrity are measured by the presence and magnitude of human-induced change to an area. Such impacts include physical developments, recreation developments, domestic livestock grazing, mineral developments, vegetative manipulation, and fire suppression activities.

The overall rating for influence on natural integrity is low (Wilderness Attribute Rating System worksheets, Roadless Section, Project File). Under this rating, generally less than 25 percent of the area has been impacted. The area appears natural to most visitors.

Prospect holes are scattered throughout the area, but no active unpatented mining claims exist. Patented mining claims are present within the roadless area.

Basin Creek and Upper Basin Creek Reservoirs extend into the area from the eastern boundary. Fluctuating water levels have disrupted vegetation growth along the shores.

Old logging skid trails and rotting tree stumps from past logging in the 1890's are evident in the northeast and northwest corners. Also, this area was sprayed for spruce budworm in the late 1950's. Neither factor detracts significantly from the apparent naturalness.

An abandoned telephone right-of-way is evident in sections 3 and 4. Natural revegetation of the right of way is occurring. A power line is located in the roadless area. This line is currently in use and has a cleared right-of-way.

Unimproved, abandoned roads are found in sections 3, 11, 22, 25, and 35. Bear Gulch Trail #108 is a summer motorized trail that bisects the roadless area.

Three active cattle-grazing allotments are located in the IRA.

### ***Apparent Naturalness***

The overall influence of human activity on the apparent naturalness of the area is low (Wilderness Attribute Rating System worksheets, Roadless Section, Project File). The evidence of mineral exploration, patented mining claims, and vegetative manipulation in the area influences the apparent naturalness. The low rating indicates the evidence of human modification of the landscape is not obvious to the casual observer, or it is disappearing due to natural processes.

### ***Opportunities for Solitude and Remoteness***

Common indicators of solitude are numbers of individuals or parties one may expect to encounter in an area during a day, or the number of parties camped within sight and sound of other visitors. Primitive recreation experiences are closely tied to opportunities for solitude.

Topography, vegetative screening, distance from human impacts such as roads and logging operations (sight and sound), and difficulty of travel all contribute to remoteness. A user's sense of remoteness in an area is also influenced by the presence or absence of roads.

The overall rating for opportunities for solitude is low to moderate (Wilderness Attribute Rating System worksheets, Roadless Section, Project File).

Vegetation and topography provide some screening from other users. Topographic screening and vegetative screening are rated moderate. (Wilderness Attribute Rating System worksheets, Roadless Section, Project File) The mountainous terrain provides some topographic cover to isolate users from distant sights and sounds. Opportunities for solitude decrease during the summer when the Bear Gulch Trail is used by motorized recreationists.

Numerous permanent, off-site intrusions are located in close proximity to the roadless area. The Butte to Salt Lake City air corridor passes over the roadless area. Bert Mooney Airport is located 6 miles north. Heavily-traveled roads border the east boundary; an abandoned railroad line and the Butte Water Company are located directly to the north of the roadless area. Sights and sounds of these intrusions are evident and detract from the sense of remoteness.

The distance from the area perimeter to the core averages two to three miles.

### ***Primitive Recreation Opportunities***

Primitive Recreation Opportunities provide for isolation from the evidence of humans, a vastness of scale, feeling a part of the natural environment, having a high degree of challenge and risk, and using outdoor skills. It is characterized by meeting nature on its own terms, without comfort and convenience facilities.

The overall rating for primitive recreation opportunities is moderate (Wilderness Attribute Rating System worksheets, Roadless Section, Project File).

The rough topography can easily disorient explorers in the area. The Continental Divide National Scenic Trail System will traverse the area. Giant boulders are good for novice climbers to learn the art of rock climbing. The splintered topography and vegetative cover requires that hunters use technical skills in tracking game animals.

### ***Special Features***

The predominant feature in the IRA is the Continental Divide which runs north and south throughout the length of the roadless area. The large boulders in the area are part of the Boulder Batholith which is a special geologic feature. A portion of the Basin Creek RNA is located within the boundaries of the Basin Creek Roadless Area.

### ***Manageability***

Wilderness and land values on the perimeter of this area are not so distinctive that minor boundary adjustments are precluded. The boundaries are manageable and access points into the roadless area are limited and can be regulated.

The Basin Creek Roadless Area was inventoried and evaluated in the 1979 RARE II EIS. Changes in acreage between that EIS and the 1987 Deerlodge Forest Plan have resulted in an acreage increase of 488 acres within the roadless area. Existing contractual agreements and private rights would need to be addressed if the area were designated wilderness. They include 230 acres of private land, 140 acres of unpatented mining claims, a special use permit for a municipal watershed reservoir, and 3,458 acres of oil and gas leases.

# EFFECTS TO INVENTORIED ROADLESS

## INTRODUCTION

The environmental consequences of the proposed project within the Basin Creek Roadless Area were evaluated for each of the five alternatives. The effects of timber harvest, prescribed fire, thinning activities, and temporary road construction were analyzed for the roadless area characteristics identified in the Roadless Area Conservation FEIS, and for wilderness attributes.

Alternative 4 is the only action alternative that proposes treatment activities in the Basin Creek Roadless Area. However, treatment activities outside the roadless area can affect the wilderness attributes and/or the roadless characteristics of the inventoried roadless area. Therefore, the cumulative effects analysis area for the roadless resource includes the roadless area itself and the project area that lies outside the roadless area boundary east to the Basin Creek Watershed boundary.

## DIRECT AND INDIRECT EFFECTS

Direct and indirect effects to roadless can be either temporary or long-term. Temporary effects are the human-induced impacts to the land surface and vegetation from harvest and burning activities that would recover within three to five years after initiation of the activity. Long-term effects are human-caused disturbances to the land surface and vegetation from burning and harvest in the roadless area that would be evident for more than five years.

Alternatives 1, 2, 3, and 5 do not propose treatment in the roadless area. There would be no direct temporary or long-term effects.

Alternative 4 proposes thinning, tree removal, and prescribed burning in the roadless area. Alternative 4 would not comply with the Roadless Area Conservation Rule if it were in effect. The cutting and/or removal of timber in the roadless area under this alternative would not meet the exceptions outlined in the RACR at 36 CFR 294.13 because:

1. The timber cut or removed would generally **not** be small diameter
2. The timber cut or removed is **not** incidental to the implementation of a management activity. The management activity described in Alternative 4 is the cutting and/or removal of timber.
3. The timber cut or removed is **not** needed and appropriate for personal or administrative use
4. The roadless characteristics of the Basin Creek Roadless Area have **not** been substantially altered in a portion of the area due to the construction of a classified road and subsequent timber harvest.

If treatment did occur in the roadless area, there would be both short and long-term effects. Temporary effects from prescribed burning would be removal of ground vegetation. Ground vegetation recovery in burned areas would occur within one or two seasons after burning is completed. Shrubs, forbs, and grasses would begin to sprout, and visual evidence of burned vegetation would disappear. A long-term effect of thinning and tree removal in the roadless area would be cut tree stumps. Mechanized harvesting equipment would be used. Harvested trees would be yarded by helicopter to areas outside the roadless area. Refer to the soils section for a discussion of effects to soils.

Effects to the Roadless Area Characteristics and Wilderness attributes are discussed below.

## **Road Construction or Reconstruction**

None of the alternatives would conduct any road construction or reconstruction in the Basin Creek Roadless Area. Consequently, there would be no direct, indirect, or cumulative effects on roadless area characteristics or wilderness attributes related to road construction or reconstruction. There will be no further reference or evaluation of road construction or reconstruction in relation to the IRA.

## **Roadless Characteristics**

### ***High Quality or Undisturbed Soil, Water, and Air***

The effects to these resources for all alternatives are discussed in detail in the Air, Soil, and Hydrology sections.

**Alternative 1:** There would be no change in the near future. However, there is a greater risk of a large high-severity wildfire than with the action alternatives. The effects of this type of fire on the soils and hydrology resources are discussed in detail in the specific resources section. Smoke from a large fire would adversely affect air quality in the IRA for the duration of the fire. Estimated smoke and particulate production is discussed in the Air Quality section.

**Alternatives 2, 3, and 5:** There would be a short-term temporary increase in smoke emissions from prescribed burning activities outside the roadless area.

**Alternative 4:** This alternative would produce the most smoke emissions of any of the action alternatives because of the number and size of treatment units. Smoke produced by a large wildland fire is less likely under this alternative.

### ***Sources of Public Drinking Water***

The Basin Creek Watershed is a municipal watershed that supplies drinking water to the city of Butte. A portion of the municipal watershed lies within the IRA. Alternative 4 proposes treatments within the roadless area portion of the municipal watershed.

Effects on water quality and quantity are addressed in the Hydrology section.

### ***Diversity of Plant and Animal Communities***

Effects to plant and animal communities are discussed in detail in the vegetation and wildlife sections.

**Alternative 1:** This alternative would continue to suppress or exclude fire from the area. Vegetation stand characteristics would change in varying degrees as the beetle epidemic progresses. Loss of trees would cause canopy openings, which would result in regeneration. Shrub and grass understories would also increase. Plant communities would diversify.

Refer to the wildlife section for effects to wildlife.

Ground fuel accumulations would increase with litterfall and as a result of falling snags that were killed by mountain pine beetle. The loss of these trees would result in downed fuel accumulations in the decades following the beetle epidemic. Ladder fuels would continue to increase as sapling sized trees continue to develop in the understory. As the canopy opens, patches of sapling-sized regeneration would occur, leading to a substantial increase in ladder fuels growing up through the heavy downed materials.

If a stand replacement fire were to occur, the immediate effects to the vegetation would be dramatic. Forested stands would change to open areas dominated by grasses and shrubs. Dead snags would occur throughout these areas in varying densities and would begin to fall and accumulate as ground fuels. For much of the affected area the dominant vegetation would initially be pine grass. However in the years following fire, lodgepole pine and minor amounts of Douglas-fir seedlings would become established. Initially more seedlings would occur on the northerly slopes and fewer on the south slopes. These seedlings would develop into saplings and eventually mature trees. As the stand develops, trees would again dominate the site. Grasses and shrubs would again become understory components and the cycle would continue (Pfister et al 1977, Fisher and Clayton 1983).

**Alternatives 2, 3, and 5:** Effects would be similar to those for Alternative 1 because no treatment activities would occur in roadless.

**Alternative 4:** Canopy conditions would change from continuous, dense, layered canopies to a more open condition. Increased sunlight would stimulate understory vegetation. Plant communities would diversify. Refer to the wildlife section for effects to wildlife.

### ***Habitat for Threatened, Endangered, Proposed Candidate, and Sensitive Species and for those Species Dependent on Large Undisturbed Areas of Land***

Effects of action alternatives on all wildlife, including Threatened, Endangered, and Sensitive species, are covered in the Wildlife section. Effects on TES plants are covered in the Vegetation section. Complete reports are located in the Project File.

### ***Primitive, Semi-primitive Non-motorized, and Semi-primitive Motorized Classes of Dispersed Recreation.***

There would be no change in the ROS classification under any of the alternatives. Access for foot travel would not be affected under any alternative. Under Alternative 4 the Bear Gulch Trail #108 would be used to implement treatment activities. Effects on recreation including a discussion of the Recreation Opportunity Spectrum classification are in the Recreation section of this chapter.

### ***Reference Landscapes***

**Alternative 1:** Fire suppression would continue under the No Action Alternative resulting in continued fuel build up and risk of a high severity wildfire. The area could continue to serve as a reference landscape due to the minimal level of management activity.

**Alternatives 2, 3, and 5:** No activities would occur in the IRA. Fire suppression would continue with vegetation succession continuing in the IRA as it would under alternative 1. Treatment activities outside

the roadless area would reduce the chances of a high severity wildfire. The IRA could continue to serve as a reference landscape due to the minimal level of management activity within the boundary.

**Alternative 4:** Treatment activities would include prescribed burning, thinning, and tree removal. Burning treatments would not change the character of forest stands but would reduce the density of the understory. Thinning treatments would not change the forested character of the stands. The stands would remain classified as they are now. Tree removal would affect the forested character of the stand. The portions of the IRA where tree removal occurs may no longer serve as a reference landscape.

### ***Natural Appearing Landscapes with High Scenic Quality***

Effects on scenic values of proposed prescribed burning, thinning, and tree removal for each alternative are covered in the Scenery section.

**Alternative 1:** This alternative would initiate no human-caused change to the scenery or the existing scenic condition of the IRA other than effects of continued fire suppression. With continued fire suppression, vegetative succession would slowly change the scenic qualities of the area over time. Increased tree mortality due to bark beetle infestations would appear natural and would not lower the scenic quality. As fuels continue to build, an uncharacteristic high severity wildfire could dramatically change the scenic qualities.

**Alternatives 2, 3, and 5:** Effects would be similar to those of alternative 1 because no treatments would occur in the IRA. Natural processes would continue to take place in the roadless area and would not affect the natural appearing landscape or the scenic quality.

**Alternative 4:**

Refer to the Scenery section for a complete discussion of effects

### ***Traditional Cultural Properties and Sacred Sites***

Effects by alternative on cultural resources are included in the Heritage Resource section with a discussion of compliance with Montana State Historical Preservation law. No known cultural sites within the IRA would be adversely affected. If any cultural sites are found during project implementation they would be protected as directed by the Forest Archaeologist.

### ***Other Locally Identified Unique Characteristics***

The Continental Divide is a unique feature of the Basin Creek Roadless Area. A portion of the Basin Creek RNA is located in the IRA. None of the alternatives propose treatment in the RNA. There would be no effect to the Continental Divide under any of the action alternatives.

## Wilderness Attributes

### ***Natural Integrity***

Effects on the natural integrity are measured by the presence and magnitude of human-induced change to an area.

**Alternative 1:** Fire suppression would continue under Alternative 1 with vegetation succession continuing. There would be continued on-site fuel accumulation, increased tree mortality from bark beetle infestations, and an increased risk of a large high-intensity wildfire. There would be no change to the natural integrity of the area.

**Alternatives 2, 3, and 5:** Alternatives 2, 3, and 5 propose no activities in the IRA. Fire suppression would continue with vegetation succession continuing as it would under alternative 1. Effects to the natural integrity would be the same as alternative 1.

**Alternative 4:** Short-term effects of thinning, burning, and tree removal would be equipment noise, cut tree slash, vegetation disturbance, more open stands, smoke, and blackened trees. Cut tree stumps would remain for the long-term. Treatments would improve ecosystem health and resiliency, reduce stand densities, and reduce the risk of a large high intensity wildfire for the long term. Natural Integrity would decrease in the short term, but would slowly return to its pre-treatment condition in the long term.

### ***Apparent Naturalness***

This is a measure of importance of a visitor's perception of human impacts to the area.

**Alternative 1:** There would be no direct effect on the apparent naturalness of the area. Naturalness would likely increase over time as existing human impacts became less obvious.

**Alternatives 2, 3, and 5:** Alternatives 2, 3, and 5 propose no activities in the IRA. Effects to the apparent naturalness would be the same as for Alternative 1.

**Alternative 4:** Thinning and tree removal would reduce stocking. Human activities would be evident to the casual observer in the form of remaining tree stumps and slash. Over time, the evidence of human activities would diminish and the apparent naturalness of the area would slowly return to its pre-treatment condition in the long term. The colonized parks that are prescribed burned would appear to be affected by the forces of nature, and human activities in these areas would not be evident to the casual observer.

### ***Solitude***

This is a perceived condition of being isolated from the sights, sounds, and presence of others and from the developments and evidence of humans.

**Alternative 1:** There could be a long-term effect on solitude with the continued fuel buildup and a higher risk of a large, high-severity wildfire. After a wildfire, the area would be more open than with harvest and prescribed burning under the action alternatives. Evidence of humans and their activities would be more visible to users of the roadless area.

**Alternatives 2, 3, and 5:** No treatment activities would occur in the IRA. However, solitude would be disrupted from those activities occurring outside the roadless area. Some of the activities under each of these three alternatives would occur adjacent to portions of the roadless area boundary. Effects on solitude would diminish the further the roadless area user was from the activities. After treatment operations were complete, recreation users would generally experience conditions similar to those that exist now. The exception would be in those areas directly adjacent to treatment units where users would see evidence of timber harvest and/or burning that occurred outside the roadless area. The temporary road adjacent to the northeast edge of the roadless area would be closed to the public during treatment activities. The main Bear Gulch Trail #108 would remain open to motorized travel.

**Alternative 4:** Solitude would be disrupted from those activities occurring inside and outside the roadless area. The sights and sounds of helicopter yarding would be evident throughout most of the portion of the IRA that lies east of the Continental Divide. Use of the Bear Gulch Trail would increase during treatment activities and this would disrupt users' sense of solitude. Recreation users would experience conditions similar to those that exist now after treatment activities were completed. The main Bear Gulch Trail #108 would remain open to motorized travel.

### ***Remoteness***

This is the sense of being secluded, inaccessible, or out of the way.

**Alternative 1:** Alternative 1 would not directly affect remoteness. However, the risk of a large high-severity fire would increase due to increased fuel build up. A large fire would remove vegetation screening and the area would then be perceived as less remote. Foot travel could become easier on burned areas as a result of vegetation removal.

**Alternatives 2, 3, and 5:** Remoteness would be affected under these alternatives even though no treatment activities would occur in the IRA. Understory trees and vegetation removed in Alternatives 2, 3, and 5 would make the sights and sounds of the valley more apparent. The sights and sounds directly associated with the logging and burning operations would decrease the recreation user's sense of remoteness. The temporary road adjacent to the northeast edge of the roadless area would be closed to the public during treatment activities.

**Alternative 4:** Effects to remoteness would be similar to those for alternatives 2, 3, and 5. Remoteness would be further degraded when treatment activities occur within the roadless area. Use of the Bear Gulch Trail during treatment activities would also contribute to this degradation.

### ***Primitive Recreation Opportunities***

**Alternative 1:** Primitive recreation opportunities would not be affected under the no-action alternative.

**Alternatives 2, 3, and 5:** Primitive recreation opportunities would still exist under these action alternatives. There would be no treatment activities in the roadless area and the vegetative cover and splintered topography would be unaltered. Treatment activities along the roadless area boundary would be evident to recreation users using the lower portions of the IRA. This evidence of human activity would not change the overall rating of moderate for primitive recreation opportunities. The temporary road adjacent to the northeast edge of the roadless area would be closed to the public during treatment activities.

**Alternative 4:** Primitive recreation opportunities would still exist under this action alternative. The vegetative cover would be altered by treatment activities. In areas of extensive treatment, the vegetative screening rating would change from moderate to little. Treatment activities inside the roadless area and along the roadless area boundary would be evident to recreation users using the middle third of the IRA. This evidence of human activity would not change the overall rating of moderate for primitive recreation opportunities. The temporary road adjacent to the northeast edge of the roadless area would be closed to the public during treatment activities.

### ***Special Features***

No special features would be affected by project activities for all alternatives.

### ***Manageability***

The roadless area boundary would not be affected by any alternative as there are no changes in ease of access, or travel either to the IRA or on adjacent areas. The temporary road adjacent to the northeast edge of the roadless area would provide temporary access to the roadless area and would make the primitive recreation opportunities within the IRA temporarily available to more people. The existing roadless area boundary would remain as it is now with no change in acreage. There would be no road construction in the IRA. Tractor skidding on treatment units outside the inventoried roadless area would not affect the boundaries or motorized travel. The Bear Gulch Trail within the IRA would be used to implement treatment activities. This would have no effect on the manageability of the IRA.

### **Consistency with Roadless Area Conservation Rule**

Prior to the national Roadless Area Conservation Rule (RACR), direction for the management of inventoried roadless areas was specified in individual land and resource management plans for each unit of the National Forest System. On May 24, 2001 the Secretary of Agriculture announced the USDA would implement the Roadless Rule. The Rule has been challenged by nine lawsuits in federal district courts in Idaho, Utah, North Dakota, Wyoming, Alaska, and the District of Columbia. On May 10, 2001, the Idaho Federal District Court issued a preliminary injunction order prohibiting USDA and the Forest Service from implementing the Roadless Rule. This action was appealed to the Ninth Circuit Court of Appeals by interveners in the Idaho cases. On July 27, 2001, interim agency directives were issued by the Forest Service for roadless areas. These interim directives expired on June 14, 2003. On April 14, 2003, the Ninth Circuit Court of Appeals issued a mandate to the Idaho District Court reversing and remanding the lower court's action. The Roadless Area Conservation Rule went back into effect as a result of this ruling. On July 14, 2003, the U.S. District Court for the District of Wyoming issued a permanent injunction and set aside the roadless rule. This decision has been appealed to the U.S. Tenth Circuit Court of Appeals.

Alternatives 1, 2, 3, and 5 do not propose treatment activities in the Basin Creek Roadless Area. Therefore, these four alternatives would comply with the Roadless Area Conservation Rule if it were in effect.

Alternative 4 is the only alternative that proposes treatment activities in the roadless area. Alternative 4 proposes thinning, tree removal, and prescribed burning in the roadless area. Alternative 4 would not comply with the Roadless Area Conservation Rule if it were in effect. The cutting and/or removal of timber

in the roadless area under this alternative would not meet the exceptions outlined in the RACR at 36 CFR 294.13 because:

1. The timber cut or removed would generally **not** be small diameter.
2. The timber cut or removed is **not** incidental to the implementation of a management activity. Fuel reduction in the form of tree cutting is a key aspect of the management activity and is not incidental.
3. The timber cut or removed is **not** for personal or administrative use
4. The roadless characteristics of the Basin Creek Roadless Area have **not** been substantially altered in a portion of the area due to the construction of a classified road and subsequent timber harvest.

## CUMULATIVE EFFECTS

The cumulative effects analysis area for the roadless resource includes the Basin Creek Roadless Area itself and the project area that lies outside the roadless area boundary east to the Basin Creek watershed boundary. (**Appendix B, Map 28**). The analysis area was extended beyond the boundary of the roadless area because treatment activities outside the roadless area can affect the wilderness attributes and/or the roadless characteristics of the roadless area.

Construction of the Continental Divide National Scenic Trail (CDNST) is expected to be completed by 2008. Portions of the CDNST would be located within the Basin Creek Roadless Area. This project would increase visitor use in the Basin Creek Roadless Area. The CDNST would be non-motorized.

Reconstruction and relocation of the Bear Gulch Trail could cause a slight increase in motorized use in the roadless area. This increase is not expected to change the roadless area characteristics or wilderness attributes since some motorized use already occurs.

Numerous permanent, off-site intrusions are located in close proximity to the roadless area. The Butte to Salt Lake City air corridor passes over the roadless area. Bert Mooney Airport is located 6 miles north. Heavily-traveled roads border the east boundary; an abandoned railroad line and the Butte Water Company are located directly to the north of the roadless area. Sights and sounds of these activities would continue.

Three active cattle grazing allotments are located in the IRA. Grazing is expected to continue on these allotments and would not change the roadless area characteristics or wilderness attributes.

## EFFECTS ON POTENTIAL WILDERNESS DESIGNATION

The analysis of roadless lands documented in Appendix C to the FEIS for the Deerlodge Forest Plan describes each roadless area, the resources and values considered, the range of alternative land uses studied, and the effects of management under each alternative. As a result of that analysis, some roadless areas were recommended for inclusion in the National Wilderness Preservation System, and others were assigned various non-wilderness prescriptions. The Basin Creek Roadless Area was excluded in wilderness position papers and was absent from the Montana Wilderness Bills. The Basin Creek Roadless Area was not recommended for inclusion in the Wilderness Preservation System, was not included in the Montana Wilderness Bills, and was given non-wilderness prescriptions.

Management activities proposed under Alternatives 2, 3, and 5 would not detract from possible wilderness designation. Under Alternative 4, no road construction would occur in the roadless area. Trees removed from the roadless area would be helicopter yarded to existing roads outside the roadless area.

The Basin Creek Roadless Area is 9,888 acres in size, of which 230 are privately owned. The treatment units within the IRA under Alternative 4 would occur in the middle portion of the area. There are no treatment units in the northern and southern quadrants. A total of 4,617 contiguous areas would be unaffected by treatments within the IRA. Of this acreage, 3,769 acres are west of the Continental Divide and 848 acres are on the south end of the IRA. The remaining contiguous unaffected area is not large enough (greater than 5,000 acres) to warrant future wilderness consideration (**Appendix B, Map 29**). The Basin Creek IRA could still be considered for future wilderness recommendation because no road construction would occur in the IRA. Treatment activities alone would not preclude it from future wilderness consideration. The Unroaded section of the FEIS discusses unroaded areas adjacent to the inventoried roadless area, and their potential for future wilderness designation.