

# **CHAPTER 1**

## **Purpose and Need for Action**

### **I. INTRODUCTION**

The Gallatin National Forest is beginning an environmental analysis, as required by the National Environmental Policy Act (NEPA), to evaluate fire risk and the potential effects of implementing a hazardous fuel reduction project on National Forest System lands outside of the Absaroka Wilderness in the wildland/urban interface areas along the Main Boulder River Corridor. The “river corridor” is about ½ mile wide and abuts the wilderness in its southern 2/3’s. Neither of the areas are “isolated strips.” The project area is located approximately 30 miles southwest of Big Timber, Montana on the Gallatin National Forest, Big Timber Ranger District, Sweet Grass and Park Counties, Montana. The Main Boulder Fuels Reduction Project is part of a continuing effort to reduce the fire risk in the Main Boulder drainage.

Collaboration with the public is an important part of the Main Boulder Fuels Reduction Project. The proposal has been developed with input from adjacent private homeowners, the local watershed association, as well as state, county, and local officials and groups. The Forest Service has been meeting with the Boulder River Watershed Association since September of 2001. More than 20 meetings have been held, with the Forest Service providing information and updates regarding the Main Boulder Fuel Reduction Project. The Big Timber Ranger District has engaged a long list of community interests in this project in addition to the watershed association including the Sweet Grass County Commissioners, Department of Emergency Services, Big Timber Fire Chief and Fire Department, Sweet Grass County Sheriff, the Sweet Grass County Road Department, Park County Commissioners, Park County Rural Fire Department, Montana Department of Natural Resources and Conservation, Bureau of Land Management, and local residents. On May 7, 2003 a meeting was held at the American Legion Hall in Big Timber to inform the public about the availability of and how to apply for funds through grants, to be used for county and private fuel reduction activities. Following this meeting, a number of these interests joined together, forming the Boulder River Fuels Reduction Cooperative.

The Boulder River Fuels Reduction Cooperative (BFRC) has secured several grants to treat fuels on private land adjacent to the National Forest. The BFRC has already implemented three pilot projects that treat fuels using several techniques on private land. In preparation for moving into the next phase of offering cost share money to private landowners for fuel reduction, the BFRC has hired a fire management consultant to prepare a community assessment and mitigation plan that prioritizes which private lands should be treated first in order to maximize treatment effectiveness and public and firefighter safety. Fuel assessments (firewise assessments) have already been completed on seventy of the private residences in the corridor.

Implementation of the Main Boulder Fuel Reduction Project is scheduled to begin in the winter of 2004/2005 and will take approximately five to seven years to complete. Upon completion this project, ongoing maintenance will be required for an indefinite length of time in order to retain low fuel levels.

This Environmental Impact Statement (EIS) is being prepared to address the direct, indirect, and cumulative environmental effects of stand density reduction and prescribed burning as the key components of this hazardous fuels reduction project. The primary goal for this proposal is to lessen the risk to the public and increase firefighter safety in the event of a human-caused or wildland fire start originating in the urban interface of the Main Boulder River Corridor or the adjacent wilderness areas. Reducing and breaking up the continuity of vertical and horizontal fuels would lower public and firefighter risk by changing the fire intensity and pattern, thereby gaining time to implement an evacuation or other safety measures were a fire to occur. Secondary goals are to improve wildlife forage and habitat, restore aspen stands, improve fire

protection in the wildland/urban interface, create residual stand conditions that are less susceptible to insect and disease infestations, and to provide public education and cooperation with groups and individuals on the hazards, risks, and actions possible to minimize losses from wildfires on private lands in the wildland/urban interface.

The primary emphasis of this project is to identify fuel modification opportunities on National Forest lands that are adjacent to the Main Boulder Road, the Boulder River, recreation residences, campgrounds, and administrative sites. Specific design criteria and mitigations have been developed to buffer these areas (See p. 2-24 and Appendix B-1) for various resource concerns. Results of fieldwork show several opportunities for fuel modification, while still maintaining eligibility of the Boulder River for consideration and possible inclusion into the National Wild and Scenic River System. Because the non-wilderness river corridor is narrow (approx. ½ mile wide in most areas) and mechanical vegetative manipulation in the Absaroka-Beartooth Wilderness is prohibited, most modification opportunities will be restricted to areas adjacent to the road and residences; the area that is known as the wildland/urban interface. These modifications, though limited in scope, would reduce the chance of human-caused fire starts (7 of 10 starts since 1979 were human caused). With a continual increase in recreational usage of the drainage and a documented history of human-caused fire starts, a preplanned fuel modification project would have beneficial effects. The proposed modifications would reduce the chances of unintentional ignitions.

In the event of a fire, these modifications would aid in the passage of fire traffic on the narrow county road and allow time for evacuation of recreationists, residents, and firefighters.

This analysis is being prepared in compliance with the National Environmental Policy Act (NEPA), Council of Environmental Quality (CEQ) regulations and the Gallatin National Forest Land Management Plan (GNFP1987). This EIS will also tier to the Absaroka-Beartooth Wilderness Fire Management Guidebook (1993).

The purpose of the NEPA process is to help public officials make decisions that are based on the understanding of environmental consequences, and to take actions that protect, restore, and enhance the environment (40 CFR 1500.1(c)).

## **II. BACKGROUND INFORMATION**

### **General Description of the Area**

The Main Boulder River Corridor consists of a strip of non-wilderness National Forest land that is about 24 miles long and approximately ½ mile wide. The Absaroka-Beartooth Wilderness, which encompasses approximately 1,000,000 acres, borders the river corridor for about 2/3<sup>rd</sup> of its length. The river corridor consists of a “box canyon” with steep sides and the Boulder River flowing roughly 3000-4000 feet below the high elevation plateaus that are located on both the east and west sides of the canyon. The drainage is characterized by a combination of densely timbered hillsides, lightly timbered, steep rocky slopes, and occasional meadows. The majority of the ½ mile wide corridor is forested with various sizes and species of trees in conjunction with other vegetation, forming a near continuous canopy of both surface and ladder fuels. The area also has numerous heavy concentrations of downed woody fuel accumulations.

Due to the unique nature of the drainage, as well as the potential for mineral exploration, development has been continuous. Although there are approximately 115 mining claims in the drainage, recreation has become the predominant use with approximately 250 private structures, many of which are seasonal residences, 25 permitted recreational residences on National Forest land, 4 church camps, 6 well used designated Forest Service campgrounds and numerous wilderness trailheads and dispersed camp sites. Tourists, camp participants, private landowners, and recreationists heavily utilize the project area during the summer and fall months, with as many as 2,000 – 3,000 people occupying the area on a typical summer weekend.

The Gallatin Forest Plan specifies that the Main Boulder River is eligible for consideration and possible inclusion into the National Wild and Scenic Rivers System. Potential classifications for “scenic and recreational” considerations are as follows:

- Wilderness boundary to Bramble Creek (Scenic Classification)
- Bramble Creek to Miller Creek (Recreation Classification)
- Miller Creek to Blakely Creek (Scenic Classification)
- Blakely Creek to the Forest Boundary (Recreation Classification)

As part of a settlement agreement with the Northwest Rivers Council, the Forest agreed to maintain and protect the values for which river segments were identified as eligible and potentially classified until suitability studies are completed.

Vegetative types vary within the river corridor, with spruce and remnant aspen occurring in the canyon bottoms and lower portions of the side drainages and increased amounts of Douglas-fir and lodgepole pine on the slopes above the canyon bottom. Conifers have encroached upon aspen stands leading to a decline in vigor and the loss of aspen in many areas. A continuous forest canopy covers much of the canyon. Forest floor fuels are moderate to heavy with heavy ladder fuels as well. Near the canyon bottom, the forest floor is interrupted by four open meadows, some of which are associated with the church camps. With only one of these meadows being irrigated, the meadow areas will likely contain dense coverages of cured grasses by mid-summer on an average year.

Forested soils in the project area are generally moderately coarse textured with many boulders on the surface and within the soil profile. These soils have relatively low productivity when compared with other soils in northern Montana mountainous areas. Meadows contain soils having few rock fragments and medium textures with high productivity. Both soils have moderate to low erosion potential. No large landslide areas occur in the canyon.

Aerial and ground surveys, as well as trapping actions within the analysis area since 2000, show continuing problems with high infestation levels of Douglas-fir beetle that have moved out of adjacent wilderness areas into National Forest and adjacent private lands. In May 2003, a field visit by the Regional Entomologist, Ken Gibson, confirmed that populations of beetles are at epidemic levels and increasing. This field report can be found in the Project File. There are also isolated populations of mountain pine beetle within the analysis area and there are outbreak populations in adjacent areas (Yellowstone NP). In the upper part of the drainage, from Elk Creek nearly to Boulder Pass, several groups of Western Balsam Bark Beetle (WBBB)-killed subalpine fir (SAF) were found. Approximately 400 acres of subalpine fir stands have been affected. Ground surveys indicate lodgepole pine dwarf mistletoe is also present. Dead and dying trees, from insect and disease occurrences in the Main Boulder drainage, are creating additional fuel loads on top of existing high natural fuel loadings. In the event there is a fire, these high fuel loadings may hamper fire control actions and create additional public safety hazards

Access to all locations in the Boulder River Corridor is by way of a county road with ownership divided between Sweet Grass and Park Counties, with Sweetgrass County conducting the annual maintenance through a shared agreement. The road runs through the canyon bottom for approximately 24 miles ending at the wilderness boundary in the Monument Peak area. It is a rough, unpaved, low speed, one-lane road with several one-lane bridges crossing the Boulder River. Some improvements to the road have been made beginning in 1998 at the urging of the Forest Service and County Fire Wardens. Sweetgrass County has recently applied for Federal Highway Access Funds to be used for additional road improvements. At this time, it is not known whether these funds will become available.

The four church camps have school buses on site during their operating season to provide transportation for campers in emergency situations. In the event of an urgent wildfire situation, the combination of these large buses, recreationists, and residents exiting over the single lane

Main Boulder Road, along with the incoming fire equipment and personnel, would create traffic congestion, making travel slow, and putting people at risk.

The Boulder River Corridor experiences frequent high wind events with wind speeds of up to 35-40 miles per hour, which sometimes persist for several hours. Dry thunderstorms, as well as Pacific Frontal Systems with their associated jet stream, occurring during the summer and fall months often produce strong downdrafts in the narrow confines of the corridor. Given cured and dry vegetation, these types of winds can result in extreme fire weather behavior.

## **Main Boulder Fire History**

In the late 19<sup>th</sup> century John Leiberger conducted a survey for the Department of the Interior, which included mapping and inventorying the forest reserves within the Absaroka Division of the Yellowstone Forest Reserves. His narrative and mapping indicate that most of the Main Boulder corridor was used for grazing and that a significant portion of the drainage had recently been burned. Observation of the burn pattern suggests that most of the corridor exhibited natural fire playing an active role in the landscape. Much of the area was then settled through homesteading and mineral development. Along with this settlement, came a very successful fire suppression program allowing a pronounced change in vegetation to occur.

Beginning in the late 1970's, the northern front range of the Absarokas began to experience wildfires of a larger size and scope than those that occurred during the previous seven decades. Some of the large fires were: the Benbow Fire 1979, Sand Dune Fire 1987, Storm Creek Fire 1988, Hellroaring Fire 1988, Iron Mountain Fire 1990, Thompson Creek Fire 1991, Blacke Butte Fire 1994 and the Sheppard Mountain Fire 1996. It was recognized by the fire community that the Main Boulder drainage exhibited many of the same characteristics of the East Rosebud drainage, in which the Sheppard Mountain fire occurred.

Although neither of the 1988 fires actually burned within the Main Boulder corridor, these two large wildfires (Hellroaring and Storm Creek) were recognized as having potential to enter the drainage from the south and burned within three miles of the project area. The composition of fuels in the Main Boulder corridor is very similar to those that burned in these two fires. Fire Management personnel on the Gallatin National Forest along with Sweet Grass and Park County officials recognized the need for further preplanning and in the winter of 1988-89, a task force was created to develop an evacuation plan, a pre-attack plan, and a vegetative plan for the Main Boulder drainage. The task force developed three documents, assigned fire prevention and suppression roles, and initiated implementation of a fuels reduction plan.

Then in 1996, the Sheppard Mountain Fire, located in the East Rosebud Drainage on the adjacent Custer National Forest became a single burning period, stand replacement fire, which resulted in 14,800 acres burned and the loss of 24 structures, as well as the evacuation of numerous residents. This fire burned with wind speeds of 35-40 miles per hour in association with a weather front and resulted in a crown fire that burned through the entire canyon.

Due to similarities between the East Rosebud and the Main Boulder canyons, fire management personnel from the Gallatin requested assistance from the Intermountain Fire Sciences Laboratory to determine if safety zones existed in the Main Boulder corridor that would provide protection for forest users and residents. The fire lab concluded that 90 years of successful fire suppression efforts and significant increases in vegetation and fuels put the corridor in a potentially hazardous situation during periods of severe fire weather and that a natural safety zone did not exist. It was concluded that an ignition, under these conditions, would produce extreme fire behavior that would seriously threaten life and property.

Given the lack of fire free zones, the current situation in the Main Boulder corridor (i.e. potential fire behavior, usage, facilities, and access) presents a serious threat to human safety.



Main Boulder Station Historic Photo (1930's)



Main Boulder Station Current Photo (1990's)

## MAP 1-1 HISTORIC VEGETATION MAP

## **MAP 1-2 CURRENT VEGETATION MAP**

## MAP 1-3 FIRE RISK MAP

### **III. PROJECT AREA LOCATION AND DESCRIPTION**

The Main Boulder Fuels Reduction project area consists of roughly 2500 acres of non-wilderness National Forest Land, which lie along the Boulder River corridor for a distance of approximately 24 miles and is approximately ½ mile in width. The project area is located approximately 30 miles southwest of Big Timber, Montana on the Big Timber Ranger District of the Gallatin National Forest. The legal description is T3S R12E, T4S R12E, T5S R12E, and T6S R12E P.M. Sweet Grass and Park Counties, MT.

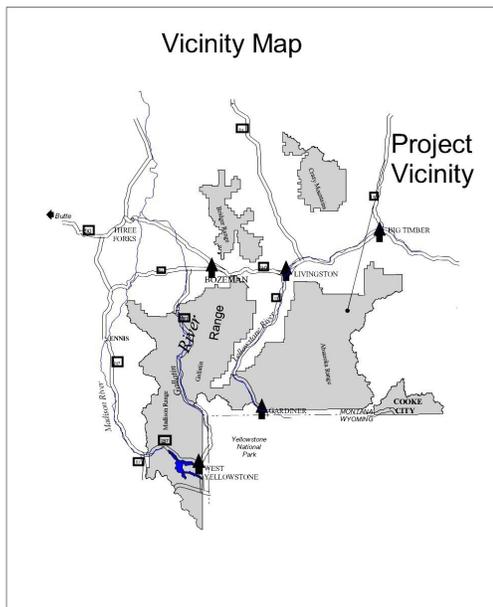
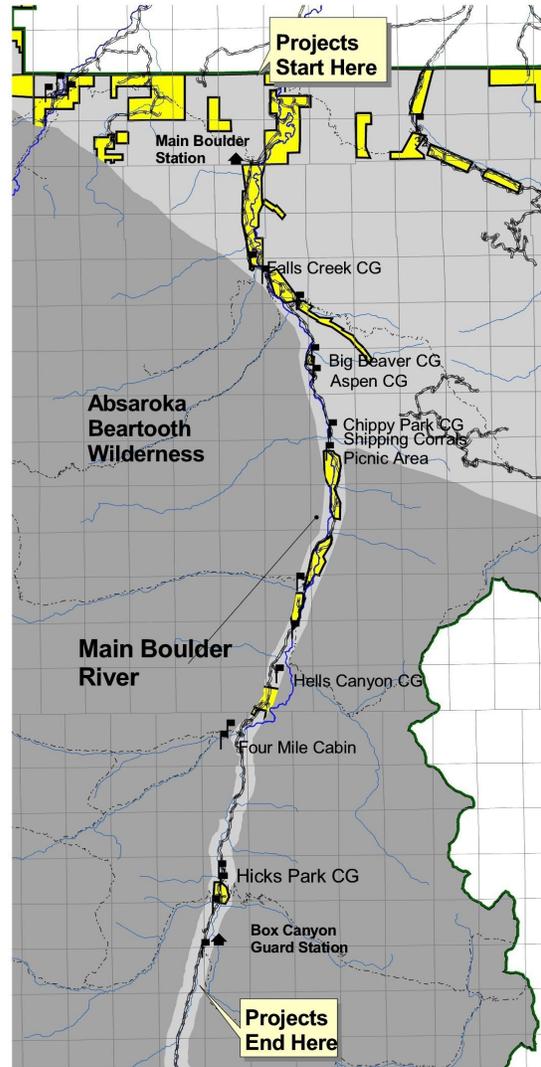
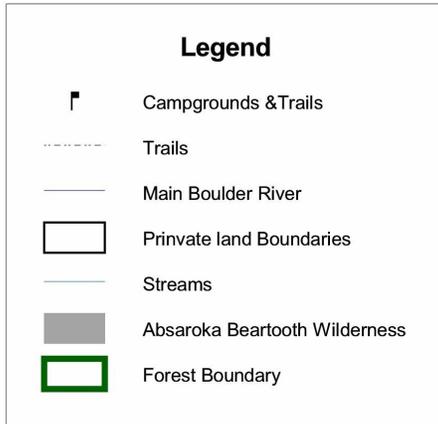
Fuel management treatments are being considered from the Forest boundary near the Natural Bridge and Falls south to the Box Canyon Guard Station area, (refer to Map 1-4, p. 1-10). Vegetation types include: Douglas-fir, Englemann and white spruce, lodgepole pine, aspen, and native grasslands. Vegetation management activities would be restricted to the non-wilderness corridor along the Main Boulder Road (#6639).

The analysis area for the Main Boulder Fuels Reduction project consists of the Main Boulder Watershed, which is made up of timber compartments 116 through 129 and 136. This area includes numerous acres of National Forest System lands, both wilderness and non-wilderness as well as private lands, all of which drain into the Boulder River. The analysis area consists of approximately 151,000 acres with about 82% of those acres classified as wilderness and another 2% privately owned. The cumulative effects area for some of the resources will vary from the project analysis area depending on the environmental needs of the individual resource.

# Map 1-4 VICINITY MAP

## Main Boulder Fuels Reduction Project

### Scoping Map



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## **IV. PURPOSE FOR AND DESCRIPTION OF THE PROPOSED ACTION**

### **Purpose and Need**

The primary goals of the Proposed Action, which have formed the Purpose and Need are to:

- 1) Provide for public and firefighter safety by minimizing the probability and effects of future human-caused fire starts and/or helping to reduce the intensity of a potential wildland fire leaving the wilderness and entering the wildland/urban interface of the Main Boulder River Corridor.
- 2) Extend the potential time available for evacuation in the event of a wildfire by reducing the fire hazard along the Main Boulder Road.
- 3) Reduce fuel loadings and break up the composition of vertical and horizontal fuels in the river corridor, where possible, to be more consistent with natural pre-suppression levels.

The secondary goals are to:

- 1) Improve wildlife habitat/forage by enhancing winter range and meadows.
- 2) Rejuvenate aspen stands.
- 3) Improve fire protection in the wildland/urban interface.
- 4) Increase vigor at the stand level, in the corridor, making trees less susceptible to future insect and disease occurrences.
- 5) Encourage adjacent private property owners and local groups to implement similar hazardous fuel reduction plans thus maximizing effectiveness by increasing the amount of contiguous acres treated.
- 6) Maintain and protect values for river segments that were identified as eligible for consideration and inclusion into the "Scenic and Recreational" classification of the National Wild and Scenic River System.

Note: The Proposed Action calls for fuel reduction treatments only on National Forest System (NFS) lands (including National Forest land authorized for special use permits) outside of the Absaroka-Beartooth Wilderness. Private landowners are responsible for fuels reduction treatments and structure protection measures on privately owned property.

Recreational usage in the project area is high, with church camps, private dude ranches, recreational residences, private dwellings and other outbuildings totaling more than 250 structures. There are approximately 115 mining claims in the drainage as well as Forest Service campgrounds, administrative facilities, and numerous trailheads. The only access road for the entire corridor is a single-lane, county owned and maintained, gravel road providing one-way access. Currently, evacuation of the public and firefighters from the area in the event of a wildfire would be extremely time consuming and difficult due to the restrictive access and the likelihood of intense fire behavior due because of excessive fuel buildups in the area.

Fuels management measures should be considered in the Main Boulder corridor for the following reasons:

- 1) Topographic features within this river corridor (a narrow, steep-sided, confining drainage surrounded by heavily timbered slopes located in the wilderness) are conducive to a large-scale rapidly spreading wildfire.
- 2) There is heavy public use throughout the area.
- 3) The Forest Service has "protection responsibility" (responsibility to fight fires that occur in this drainage)
- 4) The need to reduce the chances for a major conflagration (uncharacteristically large fire) by breaking up the fuel continuity and reducing fuels.

Many areas being considered for treatment are on National Forest land that is adjacent to private property, residences, and the Main Boulder road. Other National Forest lands with treatments planned are areas that are adjacent to permitted summer homes, recreation areas, campgrounds and Forest Service administrative sites. Mitigations have been developed that include buffering of these areas.

## **The Proposed Action**

This alternative was designed to meet the purpose and need for the project. The Proposed Action was developed considering the areas of high fuel hazard, high risk of human-caused ignition, and high social values. Considering these factors of hazard, risk, and value, stands that have high potential for lethal fire to affect lives and property in this wildland/urban interface were included for treatment in this alternative. The Proposed Action includes as priority for treatment; those stands where the reintroduction of fire would maintain and/or improve wildlife habitat, and those having existing insect and disease outbreaks in order to reduce existing and future fuel hazards. The Proposed Action, would also help to meet society's need for wood products and be consistent with the management direction of the GNF Forest Plan.

The project area is situated along the Main Boulder Road and within the Boulder River Corridor. Treatment prescriptions will attempt to bring stand conditions closer to those that historically occurred. All of the treatments have been designed to mitigate the effects to the visual integrity of the river corridor.

Mechanized equipment would not be allowed within Streamside Management Zones or wet areas in conformance with the State of Montana Best Management Practices (BMP's). Conifers would be removed around aspen clones for a 100-foot radius surrounding them in order to encourage aspen regeneration.

Maps 2-1 through 2-4 on pp. 2-20 through 2-23 display the areas of treatment associated with the Proposed Action. Detailed descriptions of the proposed treatment groups to be implemented with the Proposed Action can be found on pp. 2-12 through 2-16. Table 2-1 (pp. 2-18 through 2-19) displays individual unit information (stand treatment group, forest type, acres, management area, slope %, fuel model, and remarks). Normal operating periods are described on pp. 2-11 & 2-12. Design criteria and mitigation measures that are applicable to all units can be found on pp. 2-24 through 2-34. Table B-1, displaying unit-specific mitigations, can be found in Appendix B, pp. B-1 through B-4.

The entire project is projected to take 5-7 years to complete beginning in the Winter 2005 and will be separated into logical subdivisions for implementation purposes.

Components of the Proposed Action include:

### **Commercial Harvest**

Proposed fuel reduction treatments would occur on up to approximately 2500 acres in fifty-one separate units. Stand density reduction, utilizing ground-based harvest equipment, would occur on up to approximately 1480 acres with slopes up to 35% with up to an additional 260 acres on slopes from 35-45%, harvesting both large and small diameter trees. Spacing of leave trees would be uneven, consisting of patches of multi-storied trees as well as open spaced individual trees, while breaking up the continuity of vertical and horizontal fuels. Prescriptions would vary between adjacent stands to help break up fuel continuity. On slopes greater than 45%, only hand treatments would occur on approximately 360 acres. Understory burning and/or pile burning would occur in conjunction with the thinning activities. Burning would occur during the spring and late fall seasons.

### **Retention Areas (Leave Clumps)**

A minimum of 15 to 20 percent of the planned acreage for each unit will be left untreated to provide diversity across the landscape and maintain undisturbed habitat. Harvest will not occur within 15 foot of waterbodies (Riparian Reserves) and they will be included in the retention areas where they overlap units. The no-cut buffers around water bodies are intended to prevent disturbance of soil, organic matter, and surface vegetation in order to maintain and enhance their function as sediment catches and refuge for wildlife.

### **Small-diameter Fuels Treatments**

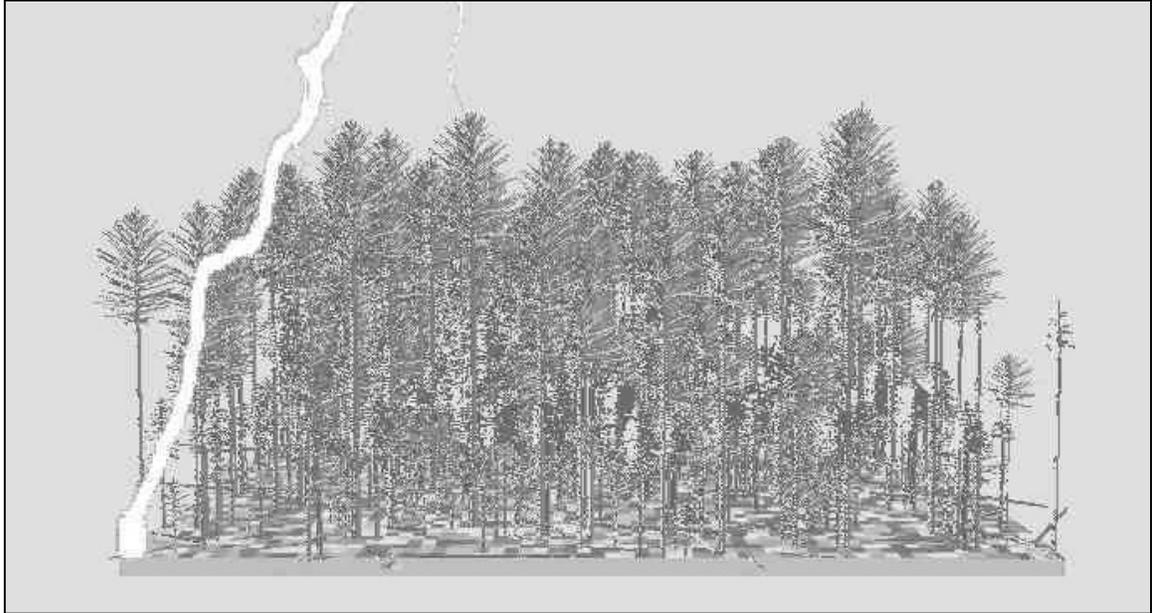
In addition to reducing surface fuel loading by commercial thinning and salvaging of large diameter trees, small-diameter fuel reduction will take place within each unit. These treatments will include the thinning of small diameter materials (6" diameter or less) and piling and burning the slash or chipping it. Some of the <6" material may be sold and utilized as forest products, if a market is available. Downed woody retention, upon completion of the thinning activities, should be approximately 5-10 tons per acre.

### **Meadows**

Slashing of conifers and prescribed burning activities would occur on approximately 400 acres of meadow type habitats. Prescriptions will attempt to bring meadow habitat conditions closer to those that historically occurred. Aspen clones would have conifers removed for a 100-foot radius surrounding them in order to encourage aspen regeneration. Prescribed burning will help to rejuvenate grasses. Many of these areas have been identified as elk winter range.

### **Temporary Road Development**

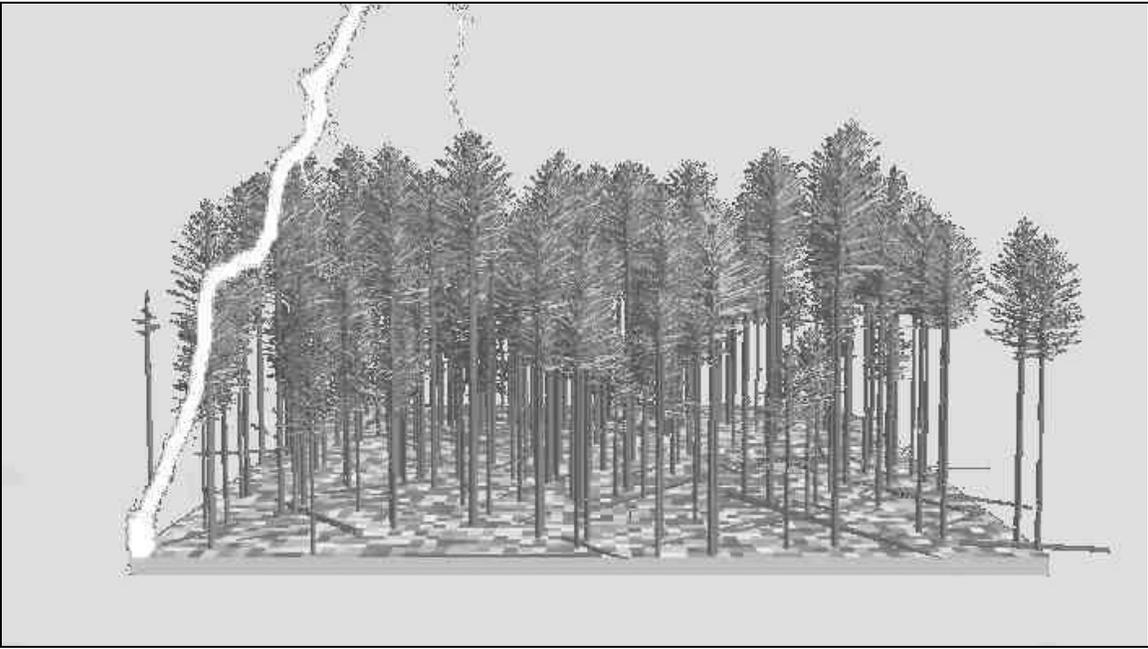
No new permanent road construction is being proposed. Commercial harvest operations are expected to require the use of temporary roads. The approximate amount of temporary roads needed to implement the Proposed Action is 9.27 miles. Actual temporary road locations are determined through agreement by the Forest Service during timber sale contract administration. Temporary roads would be constructed to provide access to the interior of harvest units to facilitate ground-based harvest systems. These roads would be built in suitable MAs, on relatively flat ground slopes (less than 15%) and would be constructed to the lowest possible standard capable of supporting log haul in order to minimize ground disturbance. In many instances, as is typical in the case of ground-based systems, individual temporary roads would be constructed along the route of previously established skid trails to minimize construction costs associated with clearing the road template. This would result in little extra disturbance within the unit. All newly constructed temporary roads would be closed to the public during harvest activities and permanently closed and recontoured within one year after completion of harvest related activities within that portion of the project area.



Pre-Treatment Wildfire Progression Simulation  
(Ignition)



Pre-Treatment Wildfire Progression Simulation  
(Crown Fire)



Post-Treatment Wildfire Progression Simulation  
(Ignition)



Post-Treatment Wildfire Progression Simulation  
(Ground Fire)

## V. SCOPE OF THE PROPOSED ACTION

The Council of Environmental Quality (CEQ) regulations implementing NEPA define the “scope” of an action consisting of “...the range of actions, alternatives, and impacts to be considered”. To determine the scope, federal agencies shall consider three types of actions; (1) connected actions; which are two or more actions that are dependent on each other for their utility; (2) cumulative actions; which when viewed with other proposed actions may have cumulatively significant effects and therefore be analyzed together; and (3) similar actions; which when viewed with other reasonably foreseeable or proposed actions have similarities that provide a basis for evaluating their environmental consequences together. (40 CFR 1508.25).

The scope of the proposed actions addressed in this DEIS is limited to stand density reduction and the reduction of downed fuel loadings including:

- Thinning of large diameter green conifers
- Harvest of insect or disease damaged/killed conifers.
- Cutting small diameter conifers
- Slashing of conifers encroaching into meadows and aspen stands.
- Prescribed burning of meadow type areas and underburning in treated stands.
- Piling and removal or burning of downed woody materials and fuels resulting from treatment actions.

## VI. RELATIONSHIP TO THE GALLATIN FOREST PLAN AND OTHER ADMINISTRATIVE DIRECTION

### Gallatin Forest Plan

The Gallatin Forest Plan (1987) embodies the provisions of the National Forest Management Act, its implementing regulations, and other guiding documents. The Forest Plan sets forth in detail the direction for managing the land and resources of the Gallatin National Forest. The Main Boulder Fuels Reduction DEIS tiers to the Forest Plan FEIS, as encouraged by 40 CFR 1502.20 The Proposed Action is supported by the following Forest Plan direction:

#### Forest Plan Goals

- Use prescribed fire to accomplish vegetative management objectives. (p. II-2)
- Provide a fire protection and use program, which is responsive to land and resource management goals and objectives. (p. II-2)

#### Forest Plan Objectives

- Prescribed fire will be used as a tool to carry out vegetative management activities. (p. II-6)

#### Forest Plan Standards

- General Standards: Forest lands and other vegetative communities such as grassland, aspen, willow, sagebrush and whitebark pine will be managed by prescribed fire and other methods to produce and maintain the desired vegetative condition. (p. II-19)
- Fire Standards: Treatment of natural fuel accumulations to support hazard reduction and management area goals will be continued. (p. II-28)

The Forest Plan uses management areas to guide management of the National Forest lands within the Gallatin National Forest. Each management area (MA) provides for a unique combination of activities, practices, and uses. The Main Boulder Fuels Reduction project area includes eight management areas. The majority of the timber harvest and thinning activities involved with this project would occur in MA5 with some harvest areas in MA7, MA3, MA11, and MA15. The majority of the temporary road construction would occur in MA5. All fuel reduction activities associated with the Proposed Action comply with Forest Plan guidelines for the applicable MAs. See MA map, p. 1-19 and Table 2-1 (Individual Unit Descriptions), p. 2-18 for MA designations of individual units.

The Forest Plan (Chapter III) contains a detailed description of each management area as it relates to significant issues. Following is a brief description of the applicable management area direction for each of the MAs affected with the Proposed Action:

**Management Area 3-** These areas consist of non-forest, noncommercial forest, and forested areas unsuitable for timber production. Timber salvage, product and firewood removal may occur where access exists. Salvage of dead, dying, or high-hazard trees to prevent insect and disease population buildups that could adversely affect regulated timber stands is permitted. Prescribed fire may be used to meet management area goals.

**Management Area 5-** These areas include travel corridors that receive heavy recreational use. They are classified as suitable for timber production and should be managed to provide a diverse vegetative pattern. Acceptable harvest methods include even-aged and uneven-aged harvest systems including commercial and pre-commercial thinning if they enhance recreational values. Design, construct, reconstruct, and maintain roads consistent with management area goals and traffic demands. Prescribed burning may be used to meet management goals. Emphasize fire prevention contact.

**Management Area 6 (MA 6; RDLES)** – These areas are generally large blocks of undeveloped land with a trail system and a few roads passing through. They provide a wide variety of opportunity for dispersed recreation uses in a variety of terrain and vegetation types (FP, pp. III-17 through III-18). Management goals for MA 6 include: (1) Provide for a wide variety of dispersed recreational opportunities, (2) Provide additional public access to these areas. Timber Standards 1) Area is classified as unsuitable for timber production, 2) Harvesting of firewood, post and poles, or other products can take place adjacent to existing roads. A portion of the Main Boulder Station unit is the only treatment area within this MA.

**Management Area 7-** This management area consists of riparian zones across the forest. It will be managed to protect the soil, water, vegetation, fish and wildlife dependent on it. These areas are classified as suitable for timber production if adjacent areas contain suitable timber. Design timber harvest to meet the needs of riparian dependent species. Commercial or pre-commercial thinning may be used. Prescribed fire may be used to meet management goals. *Note: These areas often times are too narrow to be displayed on forest MA maps due to the small scale of these maps.*

**Management Area 11-** These areas consist of forested big game habitat. They include productive forestlands that are suitable for timber harvest, provided that big game habitat objectives are met. Harvest should be designed to enhance winter range capability for big game species. Include even and uneven aged harvest systems. Prescribed fire may be used to meet management goals.

**Management Area 12-** MA 12 provides goals and objectives to maintain and improve the vegetative condition to provide habitat for a diversity of wildlife species and a variety of dispersed recreation opportunities. Harvest of post, pole, and other wood products can take place adjacent to existing roads. Prescribed burning can also be used on lands within this MA to meet management area goals.

**Management Area 15** - Under MA 15, harvest of post, poles, and other wood products is allowed in areas adjacent to existing roads. Prescribed fire can be used to meet/obtain management area objectives and goals. Roads will not be constructed for surface management, except to provide public access. Goals for MA 15 include: (1) Meet grizzly bear mortality reduction goals as established by the Interagency Grizzly Bear committee; (2) Manage vegetation to provide habitat necessary to recover the grizzly bear; (3) Provide forage for livestock consistent with goal 1; and (4) Provide dispersed recreation opportunities consistent with goal 1.

**Management Area 17** - These areas are grasslands or nonproductive forest lands on slopes less than 40 percent that are suitable for livestock grazing and contain important big game habitat and heavily used portions of range allotments. Allow for harvest of post and poles and other wood products in areas adjacent to existing roads. Prescribed fire may be used to meet management area goals.

## **MAP 1-5 PROJECT OVERVIEW & MANAGEMENT AREAS**

## Administrative Direction

Project objectives include creation of a more defensible area in the WUI by reducing the wildfire severity risk and crown fire hazard in the wildland urban interface of the Main Boulder River Corridor, creating a more defensible site. property, and natural resources from wildfires.

- Directed by National Fire Plan (2000), the Cohesive Strategy (October 2000), 10 Year Comprehensive Strategy (August 2001), 2001 Review and the 1995 Federal Wildland Fire Management Policy, Gallatin National Forest Plan, (1987).
- Measured in terms of a reduction of *crown bulk density*, an increase in *crown base height* and site conversion to *Fuel model 8*. Under these conditions, the sites meet guidelines established in FireSmart – Protecting your Community from Wildfire, (1999) for interface hazard mitigation.

Maintain low risk areas by reducing conifer encroachment.

- Directed by National Fire Plan (2000), the Cohesive Strategy (October 2000), 10 Year Comprehensive Strategy (August 2001), 2001 Review and the 1995 Federal Wildland Fire Management Policy, Gallatin National Forest Plan (NFP), (1987).
- Measured in terms of percent effectiveness of mortality estimates for mature and small trees from the First Order Fire Effects Model (FOFEM, 4.0 Reinhardt, Keane and Brown, 1997).

In August 2000, President Clinton asked Secretary of the Interior (Babbitt) and Secretary of Agriculture (Glickman) to recommend how best to respond to the recent fire events, reduce the impacts of wildland fires on rural communities, and ensure sufficient firefighting resources in the future. The President also asked what actions federal agencies, in cooperation with states and local communities, could take to reduce immediate hazards to communities in the wildland urban interface and to ensure that fire management planning and firefighter personnel and resources are prepared for extreme wildland fires in the future.

National and regional level reports have set the stage for more aggressive fuels management:

***Western National Forests: A Cohesive Strategy is Needed to Address Catastrophic Wildland Fire Threats (GAO/RCED-99-65).*** This report concluded: “(The) most serious problem related to the health of the national forests in the interior West is the over-accumulation of vegetation.”

***Managing Impacts of Wildfires on Communities and the Environment, Sept. 2000.*** This report (prepared by Secretaries Babbitt and Glickman) made recommendations on how to respond to the 2000 wildfires, how to reduce their impacts to communities, and how to ensure sufficient firefighting resources in the future.

***Protecting People and Sustaining Resources in Fire-adapted Ecosystems – A Cohesive Strategy, October 2000.*** This report outlines a strategy to reduce wildland fire threats and restore forest ecosystem health in the interior West. The Cohesive Strategy outlined four priorities: 1) wildland urban interface; 2) readily accessible municipal watersheds; 3) threatened and endangered species habitats; and 4) maintenance of existing low-risk Condition Class 1 areas (refer to 2.3.B).

***Towards Restoration and Recovery: An Assessment of the 2000 Fire Season in the Northern and Intermountain Regions, January 2001.*** This document describes current conditions, identifies opportunities, and sets priorities for restoration after the 2000 fires.

**A Collaborative Approach for Reducing Wildland Fire Risk to Communities and the Environment – 10-yr. Comprehensive Strategy, August 2001.** *This document responds to Congressional direction for a multi-agency strategy by outlining a comprehensive approach to the management of wildland fire. The 10-year comprehensive strategy has four goals: 1) improve prevention and suppression; 2) reduce hazardous fuels; 3) restore fire-adapted ecosystems; and 4) promote community assistance. This document provides the initial foundation of the recent President's Healthy Forest Initiative (August 2002).*

The Main Boulder Fuels Reduction Project is responsive to the hazardous fuels reduction and restoration elements of the **National Fire Plan (2000)**, which states:

**Hazardous Fuels Reduction** – *Assign highest priority for hazardous fuels reduction to communities at risk, readily accessible municipal watersheds, threatened and endangered species habitat, and/or other important local features, where current conditions favor uncharacteristically intense fires.*

In addition this project is responsive to the more recent **Healthy Forest Initiative (August 2002)** in terms of reducing hazardous fuels and promoting community assistance in the management of wildfire.

## VIII. DECISION TO BE MADE

This DEIS is not a decision document. It does not identify the alternative to be selected by the Deciding Official. This document discloses the environmental consequences of implementing the proposed action and alternatives to that action. The Gallatin Forest Supervisor, Rebecca Heath, is the Deciding Official. Based on the analysis documented in this DEIS, and comments received during the 45-day comment period, the Deciding Official will make a decision on this project. Her decision and the rationale for that decision will be stated in the Decision Notice.

The decisions to be made are:

- What types of hazardous fuels reduction treatments and prescribed burning should occur, if any, to reduce the chances of human caused wildfires, the fire severity risk, and crown fire hazard in the wildland urban interface of the Main Boulder River corridor in order to improve public and firefighter safety.
- What, if anything, should be done to maintain low risk (meadow type) areas by reducing conifer encroachment.
- Mitigation and monitoring requirements.

The decision will be documented in a Record of Decision and official notification published in the Federal Register and the Bozeman Chronicle.