Chapter 1

Proposed Action and Purpose and Need

I. Introduction

This environmental assessment (EA) is being prepared to disclose the direct, indirect, and cumulative effects of proposed livestock grazing on the Crazy Allotment near Big Timber, Montana. The Big Timber Ranger District, Gallatin National Forest, is proposing to reauthorize a grazing permit on Crazy Allotment. The proposal would continue grazing on suitable range within the allotment. Livestock numbers would be reduced. Grazing would continue with the current season of use, while incorporating Forest Plan and Adaptive Management direction into the Allotment Management Plan (AMP). The proposed modifications in the allotment management are designed to keep livestock numbers within the carrying capacity of the suitable land. Reduced livestock numbers are necessary in order to improve vegetative and riparian conditions and bring the allotment into compliance with the Gallatin Forest Land and Resource Management Plan (Forest Plan), as well as other legal requirements. This analysis has been prepared to comply with the National Environmental Policy Act (NEPA), Council of Environmental Quality (CEQ) regulations, and the Gallatin National Forest Land and Resource Management Plan (1987). The information and analysis in this document will be used to determine whether it is necessary to prepare an environmental impact statement (EIS) or a finding of no significant impact (FONSI) (40 CFR 1508.9).

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)). This process also ensures the public has opportunities to become informed and involved throughout all aspects of the process.

II. Background

Livestock grazing has been an important use of lands within and around the Gallatin National Forest since the 1800's. Grazing has been authorized since the formation of the Gallatin Forest in the early 1900's and it continues to be an important part of region's economy today. Domestic livestock have grazed the Crazy Allotment since the late 1800s. Allotment records begin in 1938. Both sheep and cattle grazed the allotment until 1954, when the allotment began to be grazed primarily by cattle. Sporadic sheep grazing is listed in the records through 1964 when the last sheep grazing occurred. Cattle usage has continued until the present. See the Project File (Chapter 10-A-1) for the historic grazing records.

The majority of suitable grazing area on the Crazy Allotment is private land owned by the current permittee. There are no internal fences separating private and National Forest lands within the allotment and private and National Forest lands are managed together in one

grazing area. The privately owned portion of the allotment is called the "off" land because cattle are "off" National Forest land. The intent of the Forest Service is to promote efficient use of intermingled lands in keeping with Forest Plan Standards. The Forest Service determines grazing capacity and season of use, with the primary objective being to manage and protect the federal portion of the range in conjunction with grazing on private land. The existing permit allows a total of 403 cow/calf pairs (158 National Forest and 245 off/on-private), for a season of 7/1-9/15 annually. The current grazing permit expires in December of 2005.

The Gallatin National Forest Land and Resource Management Plan (1987) set goals and objectives for management of rangeland habitats and livestock grazing. Overall goals are to maintain or improve the forage resource and provide for a small increase in livestock grazing (Forest Plan, p. II-1). Standards were also set for grazing levels along streams and upland sites.

III. Project Area

The Crazy Allotment is located approximately 15 miles northwest of Big Timber, Montana. There are no public roads on the allotment. The allotment is located in Sweetgrass County, T3N, R11E, Sections or portions of Sections 7, 8, 17, 18, 19, and 30; T3N, R12E, Sections or portions of Sections 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, and 24; T4N, R12E, Sections or portions of Sections 1, 2, and 3 (see Maps 1 & 2, located at the end of Chapter 3).

The project area is located on the eastern outslope of the Crazy Mountains, a relatively undeveloped mountainous area. Elevation ranges from 5700 feet on the eastern portion to 9,761 feet on the western portion of the allotment. Access into the area is by permission across private land owned by the permittee. Vegetation consists of Douglas fir, sagebrush, bluebunch wheatgrass, timothy, and Kentucky bluegrass (refer to Map 3).

The Crazy Allotment includes approximately 8,430 acres. The allotment is a mixture of approximately 4,137 (49%) National Forest acres and 4,293 (51%) private acres. Of these acres, approximately 532 (32%) National Forest acres and 1,148 (68%) private acres are considered suitable for livestock grazing. Approximately 3,605 National Forest acres and 3,145 private land acres are too steep, rocky, forested or otherwise not suitable for livestock use, (refer to Map 2).

IV. Purpose and Need for Action

Livestock grazing occurs as a permitted use on National Forest Lands. Grazing on the Crazy Allotment provides summer forage for the grazing permittee and contributes to the year-round forage base of a local livestock operation. The livestock industry contributes to the local, state, and national economy and is a factor in local social and economic stability.

The decision to be made is whether or not to re-issue permits for grazing in the Crazy Allotment and if so, under what conditions.

The **purpose** of the Proposed Action is:

- To revise and update the grazing permit and allotment management plan in order to assure compliance with the Gallatin Forest Land and Resource Management Plan (Forest Plan) for livestock utilization and streambank stability (pp. III-20 & III-21).
- To comply with Public Law 104-19, Section 504(a), which requires land management agencies to schedule and complete NEPA analyses on all allotments where needed to support permitted grazing activity.

The **need** for the Proposed Action is:

- Continue providing for the grazing of domestic livestock on the National Forest while improving rangeland conditions over the long-term. Short-term objectives are those physical parameters that can be measured annually and are considered necessary for long-term objective attainment. Long-term objectives may require several years to achieve.
- Address disparities between the existing and desired future conditions for riparian and upland areas within the allotment in order to meet Forest Plan forage utilization standards for riparian utilization (FP p. III-20), upland utilization standards as defined in the R1 Range Analysis Handbook (FSH 2209.21) and to assure streambank stability for affected stream reaches (FP p. III-21).

V. Proposed Action

The Forest Service proposes to continue authorizing livestock grazing on the Crazy Allotment as long as riparian and upland utilization and streambank integrity are moving toward or meeting desired future conditions. Implementation of the proposed action is presented in three phases. These phases correspond to increasing levels of complexity and financial investment. This allows for a progression of management intensity, depending on compliance with Forest Plan standards. Reduction in streambank impacts could occur in Phase One if other management practices are also employed, such as increased riding to move cattle off streambanks, placement of salt to draw cattle off riparian areas, and removal of cattle from the allotment when riparian standards are not being met.

If mitigation measures identified in Phase One are not successful in reducing impacts to streambanks and vegetation, then management will intensify by adding the requirements of Phase Two. Among other practices, fences would be constructed to help control cattle movement near streambanks.

If Phases One and Two are not successful in moving the allotment sufficiently toward meeting the desired vegetative conditions, then Phase Three will be added. The specific points of the various phases of the proposed action are as follows:

Phase One

A. A ten-year Term Grazing Permit, lasting from 2005 – 2014 would be issued, authorizing grazing at the estimated carrying capacity. A Term Permit authorizes grazing for a specific term or number of years, as opposed to an annual or temporary permit. There is one permittee on the allotment, and one Term Grazing Permit with on/off provisions that would be issued for a total of 312 AUMs (cow/calf pairs). An on/off permit recognizes that cattle may freely go "on and off" National Forest land. Suitable range includes approximately 32 percent National Forest and 68 percent private land. Between 7/1 and 9/15, the permit would allow 106 Term cow/calf pairs on the Crazy Allotment on National Forest. A total of 312 cow/calf pairs (on/off and Term) would be permitted for up to 2.5 months. This represents a reduction from the current permit, which allows 403 cow/calf pairs.

B. Bring Devil Creek and affected reaches of the Middle Fork Big Timber Creek to within Gallatin Forest Plan standards for streambank stability. Maintaining a three-inch stubble height following grazing (40% utilization), would be a condition of the permit. Range conditions would be monitored to assure this level is met. Cattle must be removed for the season when permitted grazing levels have been met. Cattle could continue to be removed from the allotment before the end of the grazing season for up to five years or management could move to Phase Two with mutual agreement between the permittee and the Forest Service.

C. Implement an upland utilization standard of 55%.

D. Encourage the permittee to move cattle off of streambanks by increasing riding, placing salt well away from riparian areas, developing upland water sources, and conducting permittee monitoring of utilization levels.

Phase Two

A. Construct approximately one and one-half miles of fence. The fence would be located to create a separate pasture that contains Devil Creek. Phase Two is designed to improve cattle distribution by controlling the amount of time cattle are allowed in the Devil Creek drainage (refer to Map 4).

B. Fence the most impacted reaches of Devil Creek, or place large woody debris along the stream channel to restrict cattle movement. Several spring sources and tributaries will not be protected by this riparian fence. The fence described under A. is intended to limit cattle use of impacted springs, seeps, and wetland areas.

Phase Three

A. Install an additional three miles of fence to separate the lower reaches of the Middle Fork of Big Timber Creek. This fencing would create a three-pasture rotation system. The Middle Fork Pasture would consist entirely of private land and could be removed from the allotment if the permittee so desired. See Map 4 for the location of proposed fencing.

Chapter 2, Alternative 2, the proposed action, (p. 2-6) further describes the measures outlined above, as well as the trigger points for implementation of the various phases of adaptive management. Details and methods for monitoring can be found in Chapter 2 (p. 2-9). Implementation will occur by incorporating the selected alternative into an Annual Plan of Use specific to the allotment.

VI. Existing Condition Summary

Timber harvest and grazing have occurred in the Crazy Allotment for many years. These activities have contributed to the vegetative structure and composition present in the area today.

Upland range conditions are variable throughout the allotment. Downward trends in rangeland condition have occurred primarily due to overstocking, poor livestock distribution, and the presence of invasive weeds. High forage utilization in some upland areas has resulted in overuse of native plant species and underuse of timothy. In addition, high utilization has altered species composition to favor lower seral species. On some sites, the presence of these species has contributed to an increase in the area occupied by noxious weeds.

Riparian conditions vary throughout the allotment. Several miles of perennial and ephemeral stream channels are not accessible or attractive to cattle due to dense forest vegetation, topography, and lack of suitable forage. Riparian conditions are near pristine in those reaches. Accessible stream reaches adjacent to areas of suitable range are often in a degraded condition. The affected reaches do not meet Forest Plan Standards for bank stability. Poor livestock distribution in portions of the allotment has contributed to concentrated use along some riparian corridors, resulting in excessive bank damage.

Grazing is responsible for some of the adverse environmental impacts observed in the allotment. Other contributing factors that are considered to be outside of the scope of this grazing analysis include:

1) Upland and riparian private land timber management and road building, including installation of culverts and inadequate road maintenance has contributed sediment to adjacent streams. Large trees have been harvested from some of the more suitable and accessible stream corridors. This practice changes stream dynamics, making the affected reaches more vulnerable to livestock impacts on vegetation and water quality.

2) Increases in conifer canopy closure and the encroachment of conifers into meadow areas are occurring on public and private land throughout the allotment. These vegetative changes result from over 100 years of successful fire suppression. This is a common problem throughout the West.

3) Rotovating (plowing and chopping vegetation) on private land in primary range areas (plowing and chopping of vegetation). This practice has caused excessive soil disturbance in some areas of the allotment, helping to cause a conversion of vegetation to low-seral species.

Due to the effects of the above-mentioned practices, grazing is only responsible for some of the impacts on the allotment. Changes in grazing management can only affect practices related to grazing. Please refer to Chapter 3, Affected Environment for a full description of existing conditions for those resource issues that are considered to be critical.

VII. Desired Future Condition

The decision to be made is whether or not to re-issue permits for grazing in the Crazy Allotment and if so, under what conditions. If the decision is to re-issue permits, the stipulated conditions must be adequate to bring the allotment into compliance with Forest Plan utilization and streambank stability standards. The main issues that need to be addressed if grazing is to continue are riparian and upland vegetation grazing levels, including long-term maintenance of desirable forage and native plant species, noxious weed invasion, and streambank integrity and stability. Please refer to Chapter 2, Alternative 2 (p. 2-6) for more specific information regarding each of these issues. Also refer to Chapter 3 (p. 3-17) for a full discussion of determining Desired Future Condition for the streams on the allotment.

The Desired Future Condition would see the following goals achieved on public and private lands within the allotment:

1) Permitted use levels are commensurate with estimated carrying capacity (Table 3-3).

2) Cattle distribution and forage use levels are appropriate to meet Forest Plan riparian utilization standards (FP p. III-20) and upland utilization meets standards as defined in the R1 Range Analysis Handbook (FSH 2209.21), allowing for key areas of recovery. These use levels are described in the Proposal, Phase One "B" and "C".

3) Native and desirable non-native forage species are generally on a stable or upward trend and are able to compete effectively against weedy invaders.

4) Streambanks, wetlands, springs, and tributaries are maintained within their properly functioning condition (PFC) in accordance with the Forest Plan (p. III-21).

VIII. Relationship to the Gallatin Forest Plan

This project is designed to follow the direction provided by the Final Environmental Impact Statement (FEIS) and Land and Resource Management Plan (Forest Plan) for the Gallatin National Forest (USDA Forest Service 1987 PF 206 & 206(a)). The Forest Plan provides direction for all resource management programs, practices, uses, and protection measures for the Gallatin National Forest. The Gallatin Forest Plan sets goals and objectives for livestock grazing on the Forest and allocates portions of the land base to help achieve these goals (Forest Plan,pages II-1, II-4, & II-13).

The Forest Plan subdivided the forest into 26 management areas (MA's). These areas are described in detail in Chapter III. of the Forest Plan (FP, pp. III-2 through III-73). The Crazy Allotment falls primarily in Forest Plan Management areas MA 6 (undeveloped, dispersed recreation), MA7 (riparian), MA10 (timber/livestock), MA12 (wildlife), and MA17 (livestock/wildlife) (see Map 2)

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 by the proposed action:

Management Area 6 (MA 6; RDLES) – These areas are generally large blocks of undeveloped land with a trail system and a few roads. MA6 provides 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.

There are no public roads on the allotment. Public access to the area is allowed with permission of the private landowner (permittee).

In MA 6, range management, such as deferred rotation, may be implemented to develop the range resource and distribute livestock. The proposed action is compatible with these standards.

Management Area 7. These areas consist of riparian zones across the forest. Riparian zones will be managed to protect the basic soil and water resources and the vegetation, fish, and wildlife dependent on them. Range improvements, such as fences and water structures may be constructed to help meet forest utilization standards. Salting may only occur outside of riparian areas, livestock usage will follow Forest Plan Guidelines, and concentrations of livestock will be kept at a level compatible with the needs of riparian dependent species.

The purpose of the adaptive management associated with the proposed action is to ensure that the rangeland within the allotment will be managed to achieve and maintain the above-mentioned guidelines.

Note: These riparian areas often times are too narrow to be displayed on forest MA maps due to the small scale of these maps.

Management Area 10. These areas contain open grasslands, interspersed with suitable timberlands. Grazing and timber management are to be coordinated to ensure prompt tree regeneration after harvest. Structural improvements may be used to distribute grazing.

There is no timber harvesting associated with the proposed action. Depending on the success of the initial phase of the proposed action, it is possible that fences may need to be constructed to help distribute grazing livestock. Fencing would be compatible with the above-mentioned guideline.

Management Area 12. MA 12 provides goals and objectives to maintain and improve the vegetative condition for the purposes of providing both habitat for diverse wildlife species and a variety of dispersed recreation opportunities. On big game winter range, meet big game forage needs before making forage allocations to livestock. Base allocation of big game summer range forage on the range allotment analysis. Range improvements may be scheduled when identified in the allotment management plan.

The above-mentioned standards are compatible with the goals of the proposed action. Livestock would not be allowed on the allotment until July 1, allowing for the regrowth and seeding of vegetation. The objectives of the adaptive management strategy associated with the proposed action include improving distribution of livestock and limiting grazing numbers to the carrying capacity of the land. These changes are needed in order to improve the vegetative composition of the allotment, and maintain the desired composition in the future.

Management Area 17. These areas consist of grasslands or nonproductive forestlands on slopes less than 40 percent. MA 17 includes lands suitable for livestock grazing and they contain important big game habitat. These are some of the most productive and heavily used portions of range allotments.

The goal of MA 17 is to maintain or improve vegetative conditions and forage production for livestock and wildlife usage. This is consistent with the goals of adaptive the management strategy associated with the proposed action. The intent of the proposed action is to continue grazing on the allotment, while improving the vegetative composition by improving distribution and limiting numbers of grazing animals to the carrying capacity of the land.

IX. Scope of the Proposed Action and Decision to be Made

The scope of actions to be addressed in this analysis are limited to the conditions for permitting livestock grazing within the Crazy Allotment. Private lands are intermixed within the allotment boundaries and have been included in the analysis for the purpose of managing grazing of the area. In lieu of fencing private land boundaries, the permittee is responsible for following the cattle numbers and season of use specified in a Term Permit with On/Off provisions. The area within the allotment that is suitable for grazing is approximately 32% National Forest land and 68% private land. The Forest Service has determined the grazing capacity and season of use, with the prime objective being to manage and protect the federal portion of the range in conjunction with grazing on private land. If the decision is to continue grazing, the conditions specified in the permit must be adequate to meet this objective.

Range and vegetation management practices are addressed together because the timing and geographic location represent a similar action under 40 CFR 1508.25(a)(3). Range improvement construction, reconstruction, vegetation treatment, and protecting or improving upland and riparian habitats represent connected actions under 1508.25(a)(l)(iii). The scope of the proposed action is specific to the range and vegetative management practices to be required under the terms of the permit.

This Environmental Assessment discloses the analysis and environmental consequences associated with implementing the proposed action and alternative to it. This EA will provide information and analysis to determine whether an action results in a significant effect and would, therefore, require the completion of an Environmental Impact Statement (EIS). The Responsible Official for this proposal is the District Ranger of the Big Timber Ranger District. If an EIS is not required, a Decision Notice, (DN) will document the decision and the rationale for it. The decision to be made is whether to authorize livestock grazing on the Crazy Allotment and if so, under what conditions. Activities identified in the alternative selected by the District Ranger will be implemented in 2006 without further NEPA documentation.

X. Preview of the Remaining Chapters

Chapter 2: Issues and Alternatives Considered – Chapter 2 describes the scoping and public involvement process along with the issues to be analyzed as a result of both internal and external scoping. Alternative 1 (no action) and Alternative 2 (the proposed action) alternatives for managing resources in the project area are described in detail. Other alternatives considered, but not in detailed analysis are also discussed. The management requirements and mitigation measures that are components of the proposed action and other alternatives are described. Monitoring methods used to assess various aspects of the project, including adaptive management monitoring requirements, are also included in Chapter 2.

Chapter 3: Affected Environment and Environmental Effects - Chapter 3 combine's two major parts of a NEPA analysis: the affected environment and the environmental effects associated with the proposed action and the no action alternatives. The physical, biological, and human resources of the environment that may be affected by the proposed action and the no action alternative are examined. The affected environment and environmental effects have been combined to give the reader a more thorough explanation of the resources and how they would be affected by the proposed action. Past, present, & reasonably foreseeable activities, management direction, and applicable laws and regulations are also included in Chapter 3.

Chapter 4: Preparation and Consultation – Chapter 4 lists the Forest Service Employees that were involved in preparing the EA and the individuals, organizations, and other agencies consulted. The mailing list and distribution of the EA are also discussed.

Appendix A: Other Issues – Appendix A outlines the other issues considered but eliminated from detailed analysis.