Chapter 1

Proposed Action and Purpose and Need

I. Introduction

This environmental assessment (EA) is being prepared to address the direct, indirect, and cumulative effects of proposed livestock grazing on the Fridley Creek, Lewis Creek, Sunnybrook, and proposed Dry Creek Allotments near Livingston, Montana. The Livingston Ranger District, Gallatin National Forest, is proposing to reauthorize livestock grazing permits on the Fridley Creek, Lewis Creek, and Sunnybrook Allotments and possibly authorize a new permit for the Dry Creek Allotment (formerly portions of the Fridley and the vacant Lewis Creek Allotments).

Two action alternatives and a no action alternative are being considered in detail. Both action alternatives would continue grazing on the Fridley Creek and Sunnybrook Allotments and would reauthorize grazing on the Lewis Creek Allotment (currently vacant). The Adaptive Management Alternative (Alternative 3) would also authorize grazing on the newly developed Dry Creek Allotment and incorporate Adaptive Management direction into the Allotment Management Plans (AMP's).

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 and Resource Management Plan (1987). Gallatin Forest Plan standards would be followed. The information and analysis in this document will be used to determine whether 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

The Fridley Creek, Lewis Creek, and Sunnybrook grazing allotments are located on the east side of the Gallatin Range within the upper Yellowstone River watershed. 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. The Gallatin National Forest Land and Resource Management Plan (1987) set goals 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). Management applications of the Fridley Creek, Lewis Creek, Sunnybrook, and proposed Dry Creek Allotments associated with the alternatives are designed be consistent with these goals, especially with the implementation of the proposed Alternative 3, which by incorporating Adaptive Management Strategies, would allow flexibility for small increases in livestock grazing in the future as long as improvements to the forage resource continue to be made. Standards were also set for grazing levels along streams incorporating the Beaverhead-Deerlodge riparian guidelines as described in Chapter 3 affected environment pp. 3-10 through 3-23).

Average precipitation in the allotment areas varies from about 16 to 35 inches a year with about 50% occurring as snow in lower elevations and 65% at higher elevations. The grazing allotments are in a rainshadow from the Gallatin Range and precipitation decreases sharply with decreasing elevation. Average snowfall varies from about 100 inches in the lower part of the allotments to about 150 inches in highest elevations. Winters are long and cold and snow usually remains at the higher elevations for about eight months. Summertime high temperatures range from the 60's through the 80's with occasional 90 degrees (Miller et.al., 1973).

Historical timber harvesting has occurred in Eightmile Creek, Pole Gulch, Miller Creek, and parts of Fridley Creek. The Pole Gulch Timber Sale, completed in 2002, and Golmeyer Salvage Sale, completed in winter of 2004-2005, were the most recent logging in the areas which included parts of Pole Gulch, Eightmile Creek, Miller Creek and Golmeyer Creek (Section 4). The 26,373 acre Fridley Fire in 2001 burned about 2000 acres in headwater watershed area of the allotments incuding about 700 acres in Miller Creek and 930 acres in Fridley Creek. Sediment analysis associated with the Fridley Burned Area Emergency Rehabilitation (BAER) analysis indicated that Miller Creek sediment levels were calculated to increase from pre-fire levels of 46% over natural to 128% over natural in 2002 and recover to pre-fire levels by about 2005. In July of 2002 localized intensive rain events caused channel incisement, some flooding, and stream channel damage to Miller Creek. All of the streams in the allotments are designated by the Montana Department of Environmental Quality (DEQ) as water quality standard B1 streams (See Table 3-3) and stream descriptions beginning on p. 3-10. The most limiting beneficial use is fishery habitat.

None of the streams in the allotments are listed in the Montana Department of Environmental Quality/Water Quality Division 303(d) report (DEQ, 2004) as stream segments in need of Total Maximum Daily Load (TMDL) development. Downstream beneficial water uses include fish and aquatic life, recreation, irrigation, stock use, and wildlife.

Parent material within the allotments is primarily Tertiary volcanics (Ramsey and Davis, 1978). Predominant upland soil types in most of the allotments include 54-3C, 54-3D, and 54-3F. These soil types are medium textured, moderately well drained, moderate soil erodibility, high sediment delivery efficiency, and moderate range productivity. The stream bottom of Fridley Creek (floodplain and terraces) formed on alluvial deposits is in soil type 64-2C. This soil type has high water holding capacity with low surface runoff potential, moderate soil erodibility, high sediment delivery efficiency, and low range productivity (Soil Survey of the Gallatin National Forest, July 1996).

Fridley Creek Allotment

Records beginning in 1909 indicate that livestock generally used the Fridley Creek Allotment area from April 15 to November 15. Records prior to 1939 do not exist showing the stocking rate. By 1951, the grazing season was reduced down to 7/1 to 10/15 with 120 cow/calf pairs. The allotment has intermixed ownership and is currently being grazed by a total of 285 cow/calf pairs (143 cow/calf pairs on Forest Service and 142 cow/calf pairs on private land) from July 1 to October 15. This allotment is separated into two different herds. One herd of 47 pairs graze Section 4, T6S, R7E, Section 32, T5S, R7E using a deferred grazing rotation system. The second herd grazes the remainder of the allotment using a season-long grazing system.

Lewis Creek Allotment

The Lewis Creek Allotment is currently vacant, but grazing is proposed in both the action alternatives. Early records for the Lewis Creek Allotment indicate that rangeland within the allotment has been used by cattle since the forest was created. Originally, this allotment was part of the Big Creek Allotment. In 1960 the Lewis Creek portion was separated to address livestock management concerns. The grazing season was set at 7/1 to 10/15 with two separate permits for a total of 26 cow/calf pairs. In 1988, the permit was issued one permittee for 22 cow/calf pairs from 7/1 to 10/15. When this allotment was active, the permittee used a deferred rotation grazing system.

Sunnybrook Allotment

There are no records indicating use of the Sunnybrook Allotment prior to 1937, when a special use permit was issued to allow livestock grazing from July 1 to September 30 for 10 animal months. The special use permit was changed to a grazing permit and the allotment designated in 1971. The grazing permit was for 4 head for 10 animal months for a season of 8/1 to 10/15. Horses have grazed the allotment predominantly since 1937. In 1993, the National Forest portion of the allotment increased as a result of a land exchange with Big Sky Lumber Company. Livestock numbers were not increased as a result of this exchange. Presently, one permittee utilizes the Sunnybrook Allotment using a seasonally deferred one-pasture grazing system. Livestock numbers are variable and use cannot exceed 18 head months[1] during the grazing season (7/1 to 10/15).

Proposed Dry Creek Allotment

Forest Service range specialists rode the country between the southern sections of the Fridley Creek Allotment (section 4 T6S, R7E and section 32 T5S, R7E) and the northern section of Lewis Creek Allotment (section 6 T6S, R7E) with the permittee for the area, it was determined that this large area had poorly maintained boundary fences and steep topography, which is resulting in trespassing cattle. Combining the lower sections of Fridley Creek

[1]Number of animals per month of grazing

Allotment, private land, and the vacant northern section of Lewis Creek Allotment (to form the new Dry Creek Allotment) would be more feasible to manage livestock in this area.

III. Project Area

The proposed project area lies on the northern portion of the Gallatin Mountain Range. The area includes Miller Creek, Fridley Creek, Dry Creek, and Hyalite Creek watersheds. Fridley Creek and Dry Creek flow directly into the Yellowstone River. Miller Creek drains into Fridley Creek, and Hyalite Creek flows into Big Creek. The analysis area consists of approximately 10,500 acres of intermixed National Forest and private lands (see Map 1).

Fridley Creek Allotment

The Fridley Creek Allotment is located approximately 17 miles southwest of Livingston, Montana and 3 miles west of Emigrant on the east slope of the Gallatin Range (see Maps 2 & 3). The legal description for the allotment is Township 5 South, Range 7 East, Sections 14-16, 21, 23-28, 33 and 34; and Township 6 South, Range 7 East, Section 4. The allotment has intermixed ownership encompassing 8,547 acres (4,747 acres National Forest, 3,800 acres private land) with the entire allotment managed by the Forest Service. Suitable vegetation types (approximately 3,690 acres) within the allotment range from open, rolling grasslands and sagebrush hills to areas of forested range with a grass understory. Most of the suitable range occurs between an elevation of 5,000 and 7,000 feet. Dominant grass/shrub vegetation types include Idaho fescue/bluebunch wheatgrass, and big sagebrush. Forested vegetation types include Douglas fir and lodgepole pine.

Recreational use and facilities within the Fridley Creek Allotment are minimal due to lack of public access in the area. System trails crossing the allotment include the Pole Gulch Trail #182 and the Fridley Lakes Trail #240, but permission by the private landowners is required to access these trails. One interior fence crosses the Fridley Lakes Trail in the southwest corner of Section 26. There are old logging roads located throughout the allotment, but their use is primarily limited to the intermixed private land.

Lewis Creek Allotment

The Lewis Creek Allotment is located approximately 21 miles southwest of Livingston, Montana on the east slope of the Gallatin Range (see Maps 4 & 5). The currently vacant allotment encompasses 923 acres. The legal land description for the allotment is Township 6 South, Range 7 East, Section 6; and Township 6 South, Range 8 East. The allotment is composed of sagebrush/Idaho fescue/bluebunch wheatgrass/prairie junegrass slopes, small Idaho fescue/bluebunch wheatgrass/prairie junegrass parks, and open Douglas fir timbered areas. Most of the suitable range (approximately 670 acres) occurs between 6,000 to 6,600 feet in elevation.

One National Forest trail provides access to the Lewis Creek Allotment for the permittee and general public. Lewis Creek Trail #181 accessed by the Big Creek Road, follows Lewis

Creek along the southwest border of the allotment. Vehicle access into the area is by permission from the private landowner.

Sunnybrook Allotment

The Sunnybrook Allotment is located approximately 27 miles southwest of Livingston, Montana on the east slope of the Gallatin Range (see Map 6). The allotment encompasses 561 total acres. The National Forest portion of the allotment is 225 acres, with 336 acres of private land. The legal land description for the allotment is Township 6 South, Range 7 East, Section 18; and Township 6 South, Range 8 East, Section 13. The allotment is composed of sagebrush/Timothy slopes, small Timothy/mountain brome grass parks, and open Douglas fir timbered areas. Most of the suitable range (approximately 357 acres) occurs at approximately 6,000 feet in elevation.

Lewis Creek Trail #181, which is accessible to the general public, forms the west boundary of this allotment. All other trails within the allotment are either on private land or are secondary trails that are part of an outfitter and guide permit. The allotment is very small and can be accessed by vehicle from county roads in Big Creek and Hyalite Creek.

Dry Creek Allotment

As a part of Alternative 3 (Adaptive Management), a fourth allotment would be created. The new Dry Creek Allotment would incorporate section 4 T6S, R7E and section 32 T5S, R7E of the Fridley Creek Allotment, Section 6 T6S, R7E of the Lewis Creek Allotment and parts of section 5 T6S, R7E, which is privately owned land (see Map 7). This allotment would encompass approximately 1,895 acres of intermixed ownership (approximately 1,495 acres National Forest/ and 400 acres private) The entire allotment would be managed by the Forest Service. If the Adaptive Management Alternative were selected, then the acres for the Lewis Creek and Fridley Creek allotments, as described above, would change.

Most of the suitable range (approximately 1,245 acres) occurs at approximately 6,400 to 7,400 feet in elevation. The vegetation within this allotment is also very similar to that found in the Fridley Creek Allotment.

There are two trails that traverse this allotment. The Hyalite Creek Trail (#190) can be accessed by the public from Hyalite Reservoir, on the west side of the Gallatin Range. Trail #182 leads from Fridley Creek Allotment into the proposed Dry Creek Allotment and connects to the Hyalite Creek Trail. Access to these trails and areas of the allotment is by permission across private land.

IV. Purpose of and Need for Action

The **purpose and need** of the proposed action are to:

- Revise and update the grazing permits and allotment management plans to comply with the Gallatin Forest Land and Resource Management Plan (Forest Plan).
- 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.
- Continue providing for the grazing of domestic livestock on the National Forest, while improving rangeland conditions over the long-term[2].
- Incorporate Adaptive Management Strategies into the allotment management plans. (Ref FSH 2209.13, Chapter 90 - Rangeland Management Decisionmaking).
- Address disparities between exiting and desired future conditions for riparian, aspen and upland areas within the allotments in order to meet Forest Plan standards for riparian utilization (FP p. III-20), and 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

As outlined in the December 2003 scoping letter, the Forest Service proposes to continue authorizing livestock grazing permits on the Fridley Creek, Lewis Creek, and Sunnybrook Allotments. Permits would be re-issued for the same numbers, season of use, and management strategies that are currently permitted and would adhere to the same terms and conditions as apply to the existing permits. The actions that would occur under the proposed action are as detailed below:

Fridley Creek Allotment

Two Term Grazing Permits[3] and one Term Private Land Permit[4] would be issued on this allotment, for a total of 945 Head Months (HM). The season of use would range from July 1st to October 15th (See Table 2-2, p. 2-11).

The allotment would remain divided into three pastures (See Fridley Creek Allotment-Map 2). The cattle would be split and allowed to graze in the two northern pastures with season

[2] Short-term objectives are those physical parameters that can be measured annually and are considered to be necessary increments for long-term objective attainment. Long-term objectives may require several years to achieve.
[3] Term Grazing Permit is one issued for cattle to graze on National Forest Lands for up to 10 years.
[4] Private Land Permit is one issued to a qualified applicant who owns or controls at least 1/3 of the land within the grazing allotment. The applicant waives exclusive grazing use of the private land to the Forest Service.

long grazing. The southern area of the allotment would be grazed under a deferred rotation system[5] using salting and riding to encourage livestock movement.

Maintenance of improvements such as fences and a water tank would continue to be the responsibilities of permit holders and private landowners adjacent to the allotment. No new developments are proposed under this alternative.

Lewis Creek Allotment

One Term Grazing Permit would be issued on this Allotment for the grazing of 22 cow/calf (77 HM), the same number as currently permitted. Grazing would be allowed from July 1st to October 15th annually. Grazing would occur under a two-pasture deferred rotation system.

Maintenance of improvements including fences and two water tanks would continue to be the responsibilities of permit holders and private landowners adjacent to the allotment. No new developments are proposed under this alternative (See Lewis Creek Allotment-Map 4).

Sunnybrook Allotment

A Term On-Off Permit[6] would be issued every year for 5 horses (18 HM) from July 1 to October 15, the same numbers and season that are currently permitted. The grazing rotations will be guided by the ranch plan developed by the Natural Resources Conservation Service (NRCS) that addresses timing, intensity, frequency and duration. The use by livestock is approximately 36 percent Forest Service administered land and 54 percent of the land is presently controlled by the permittee (See p. 1-3).

There are no structural improvements owned or maintained by the Forest Service. The improvements surrounding the allotment, including fences, are the responsibility of the private landowners adjacent to the allotment (See Sunnybrook Allotment Map 6).

Implementation of the proposed action would occur through incorporation of the proposal into an Allotment Management Plan (AMP) specific to each allotment or group of allotments where specific dates for grazing, livestock numbers, grazing systems, and range readiness are actually identified. Monitoring methods, as defined in Chapter 2 (pp. 2-19 through 2-27), of this document would also be specified in the allotment management plans.

[5] Deferred rotation system – to delay grazing until the range plants have had time to set seed. For a two pasture grazing allotment, cattle start early in one pasture the first year and late in the same pasture the next year. Allowing for the plants to recover.

[6] Term On-Off Permit is one permit issued to a qualified candidate when a logical grazing area contains both Forest controlled and private lands. This type of permit is usually issued when a minor portion of the logical grazing area, normally less than 1/3 is controlled by the Forest Service.

VI. Existing Condition Summary

The following existing condition summaries provide brief descriptions of vegetative and stream conditions that currently occur within the Fridley Creek, Lewis Creek, and Sunnybrook Allotment boundaries. Detailed descriptions of existing conditions for individual streams, riparian and upland vegetative conditions, aspen occurrence, soils, fish, and wildlife can be found in the Affected Environment portion of Chapter 3 (p. 3-4 through 3-24).

Fridley Creek Allotment

The Fridley Creek Allotment consists of both National Forest and private land. The most predominant human influences on vegetation in the analysis area are logging and grazing in the riparian as well as the upland areas. Natural influences on vegetation include the 2001 Fridley Fire, which burned through several of the allotments including the majority of the Fridley Creek Allotment. The combination of past logging and road building on private land, fires, and season-long cattle grazing have contributed to the vegetative structure and composition present today in the Fridley Creek Allotment.

The Fridley Creek Allotment analysis area includes approximately 3 miles of Fridley Creek, Dry Creek, Miller Creek, the extreme headwater reaches of Golmeyer Creek, and other unnamed ephemeral draws. Fridley Creek supports Yellowstone cutthroat trout above the confluence with Miller Creek. Dry Creek, Miller Creek, and Golmeyer Creek do not support fisheries because of low and intermittent streamflows. None of the smaller tributaries or ephemeral draws support fish populations within the allotment boundaries. Some stream reaches that are accessible to livestock have been negatively impacted to varying degrees; other reaches that are not accessible have not been impacted. Post fire effects of the Fridley Fire have contributed to degraded conditions in several stream reaches. (See Appendix B-1 and Affected Environment, pp. 3-10 through 3-23 for specific reaches that are affected).

Currently, the riparian vegetation consists of bluegrass, timothy and very few willow species. Due to the season-long grazing, riparian vegetation is declining in some areas and does not meet Gallatin Land and Resource Management Plan (LRMP) 1987 goals and objectives or Forest Plan Riparian Utilization Standards. There are scattered infestations of invasive species, including musk thistle, bull thistle, Canada thistle, houndstongue, mullein, black henbane, and spotted knapweed. In addition, aspen regeneration is lacking. Aspen stands are over mature and single storied. There is no age class diversity as young sprouts are browsed heavily and never reach recruitment age. Conifers are competing with aspen for nutrients, water, and sunlight, further inhibiting aspen to be sustained across the landscape.

The majority of the upland vegetation meets LRMP goals and objectives. Isolated upland areas have high utilization due to the season long grazing. These isolated areas do not currently meet LRMP goals and objectives, based on field visits, ocular estimates and utilization documentation.

Lewis Creek Allotment

This allotment was in non-use for three years and is currently waived back to the Forest Service for permittee convenience. The lack of grazing has allowed for the upland vegetation to recover. The riparian areas have also improved based on field visits, ocular estimates and utilization documentation.

The Lewis Allotment analysis area includes a 1.5 mile reach of Lewis Creek, headwater reaches of Hyalite Creek, which are both tributaries to Big Creek, and a small reach of Mill Fork Creek which is a tributary to Hyalite Creek. Approximately 1/8 mile of Mill Fork Creek is within the allotment, all of which is located within suitable rangeland. Some stream reaches that are accessible to livestock have been negatively impacted to varying degrees; other reaches that are not accessible have not been impacted. (See Appendix B-11 and Affected Environment, p 3-16 through 3-18 for specific reaches that are affected). These affected areas do not currently meet LRMP goals and objectives or Forest Plan Riparian Utilization Standards, however, there has been a steady upward trend in vegetation and streambank stability because the allotment has been vacant for the past three years. Upland vegetation meets LRMP goals and objectives

There are two water tanks located within the allotment providing alternate water sources. When the Lewis Creek Allotment was active, it was utilized as a two pasture deferred rotation system. This allotment is geographically isolated due to the proximity of private lands, lack of access, and topographic barriers making this allotment difficult to manage.

Sunnybrook Allotment

The Sunnybrook Allotment is used in conjunction with a Natural Resources Conservation Service (NRCS) ranch plan rotation system. This allotment consists mostly of upland vegetation. The upland vegetation is in compliance with Forest Plan Standards. The permittee has been working with the Forest Service to reduce invasive species in a few areas of concern.

The Sunnybrook Allotment analysis area includes a lower reach of Hyalite Creek, and a one-half mile reach of Big Creek. Riparian areas along Big Creek are steep and rocky and are unsuitable for livestock. Only limited riparian grazing has occurred along Big Creek due to the topography. No evidence of riparian livestock grazing along Hyalite Creek has been observed during field reviews, primarily because of dense deciduous shrubs that avert stream access.

Flood flows in June of 1997 caused extensive destabilization and downcutting, lateral cutting, and bedload disposition along portions of Hyalite Creek. Because those disturbances were from natural causes, the channel stability ratings were judged to be within Forest Plan Standards. Forest Plan standards for riparian forage utilization and streambank stability and LRMP goals and objectives for range management are currently being met within this allotment based on field visits, ocular estimates and utilization documentation .

Proposed Dry Creek Allotment

The Adaptive Management Alternative would create the Dry Creek Allotment. This allotment would be a combination of the south half of the Fridley Allotment, private land, and the northern pasture of the currently vacant Lewis Creek Allotment. Geographically, this would allow for better utilization of a greater area, providing more management flexibility, and allowing for additional rest periods. Forest Plan standards for riparian forage utilization and streambank stability and Land and Resource Management Plan (LRMP) goals and objectives for range management are currently being met within this allotment based on field visits, ocular estimates and utilization documentation .

VII. Desired Future Conditions

The desired future condition (DFC) of an area describes the conditions that management is intended to produce. The DFC reflects the capability of the landscape, the various laws and regulations that apply to an area, and the values, or "products" that are desired. The DFC is portrayed through descriptions of how an area could look and function. DFCs for this project were derived from utilizing a combination of LRMP goals and objectives, standards derived from the Forest Plan regarding riparian vegetation utilization and streambank stability, as well as the more stringent Beaverhead-Deerlodge riparian utilization guidelines. Since riparian utilization and streambank stability standards are typically exceeded before upland goals and objectives are exceeded, a greater focus is concentrated on riparian areas. A more detailed description of determining desired future conditions and developing use levels can be found on p. 3-10 through 3-14. A detailed discussion of individual stream conditions and riparian DFC determinations for all streams located within the allotments can be found in Appendix B.

The concept of proper functioning condition (PFC) of riparian areas is now commonly used as guidance for the management of riparian areas on public lands. Proper functioning condition entails maintaining the physical components of a riparian area in a manner that dissipates stream energy, filters sediment, retains floodwaters, and develops root masses (BLM 1993).

Fridley Creek Allotment

(a) **Streambanks:** Maintain all streams within the allotment in a proper functioning condition. Reduce the excessive utilization and trampling that has been occurring along some stream reaches (See Appendix B for specific areas affected). The desired conditions exist when adequate vegetation, landform, and large woody debris allow the stream and floodplain to function within its inherent range as determined by its landform and geologic context.

(b) **RiparianVegetation:** Desired conditions for riparian vegetation are for plant communities associated with springs and riparian areas to exhibit dominance of desired native sedges, grasses and forbs. Desired woody species are vigorous and reproducing successfully as demonstrated by an unaltered growth form and representation of all age classes. Introduced and native species usually associated with long term, intense grazing

may be present but at relatively low levels. Riparian vegetation expands to the fullest extent possible.

(c) **Aspen:** The desired condition for aspen is to provide overstory complexity of multi-layered stems with an understory diversity composed of native shrubs, grasses, and forbs. Livestock management practices do not compromise vegetative conditions, such that the long-term survival of structurally diverse aspen stands is maintained with a range of ages and size classes.

(d) **Upland Vegetation:** Maintain good to excellent upland vegetation condition through improved livestock distribution, proper utilization levels (FSH 2209.21), and management of grass and forbs to decrease invasive weed species including spotted knapweed and Canada thistle.

Lewis Creek Allotment

(a) **Streambanks:** Maintain all streams within the allotment in a proper functioning condition. Reduce the excessive utilization and trampling that has been occurring along some stream reaches. The desired conditions are for adequate vegetation, landform, or large woody debris is present to allow the stream and floodplain to function within its inherent range as determined by its landform and geologic context.

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(b) **RiparianVegetation:** Desired conditions for riparian vegetation are for plant communities associated with springs and riparian areas to exhibit dominance of desired native sedges, grasses and forbs. Desired woody species are vigorous and reproducing successfully as demonstrated by an unaltered growth form and representation of all age classes. Introduced and native species usually associated with long term, intense grazing may be present but at relatively low levels. Riparian vegetation expands to the fullest extent possible.

(c) **Upland Vegetation:** Maintain good to excellent upland vegetation condition through improved livestock distribution, proper utilization levels, and management of grass and forbs to decrease invasive weed species including spotted knapweed and Canada thistle.

Sunnybrook Allotment

Forest Plan standards for riparian utilization and streambank stability are currently being met within this area. Current management strategies for upland vegetation are effective in meeting the desired future conditions for this allotment. Desired future conditions for this allotment include:

(a) **Streambanks and Riparian Vegetation:** Keep streams and riparian vegetative conditions within properly functioning conditions. The desired conditions are for adequate vegetation, landform, or large woody debris is present to allow the stream and floodplain to function within its inherent range as determined by its landform and geologic context.

(b) **Upland Vegetation:** Maintain upland vegetation trends and vegetative conditions.

Proposed Dry Creek Allotment

Forest Plan standards for riparian utilization and streambank stability are currently being met within this area. Current management strategies for upland vegetation are effective in meeting the desired future conditions for this allotment. Desired future conditions for this allotment include:

(a) **Streambanks and Riparian Vegetation:** Keep streams and riparian vegetative conditions within properly functioning conditions. The desired conditions are for adequate vegetation, landform, or large woody debris is present to allow the stream and floodplain to function within its inherent range as determined by its landform and geologic context.

(b) **Upland Vegetation:** Maintain upland vegetation trends and vegetative conditions.

Table 1-1 Comparison of Existing Condition to Desired Future Condition by Allotment

Allotment	Existing Conditions	Desired Future Conditions
Fridley Creek	Some riparian areas and streams exceed FP Standards and LRMP goals and objectives. Isolated upland areas are outside of LMRP goals and objectives. Aspen regeneration is declining.	Meets FP Standards and LRMP goals and objectives for riparian and upland areas. Aspen regeneration is increased and enhanced.
Lewis Creek	Some riparian areas and streams exceed FP Standards and LRMP goals and objectives. Upland areas meet LRMP goals and objectives.	Meets FP Standards and LRMP goals and objectives for riparian and upland areas.
Sunnybrook	Meets FP Standards and LRMP goals and objectives for riparian and upland areas.	Meets FP Standards and LRMP goals and objectives for riparian and upland areas.
Dry Creek (proposed allotment)	Meets FP Standards and LRMP goals and objectives for riparian and upland areas..	Meets FP Standards and LRMP goals and objectives for riparian and upland areas.

VIII. Forest Plan Direction

The Forest Plan provides overall management direction in the form of objectives, guidelines and standards. The objectives for range resources include: Improved forage management will be used to maintain or enhance the range environment and to provide for increased animal unit months (AUMs); Development and use of available forage will depend upon the livestock industry's ability and desire to make the necessary investments and the Plan calls for continuing to administer about 15,000 AUMs of grazing use on private lands that are intermingled with National Forest lands within grazing allotments. Guidelines and standards from the Forest Plan (FP, p. II-20) include:

1. Allotment management plans will be completed on a scheduled priority basis.
2. Some allotments will be closed.
3. Vacant livestock allotments will be evaluated and allotment plans prepared prior to livestock use.
4. Domestic sheep will not be reintroduced to vacant allotments in grizzly bear MS-1 areas.
5. Structural and nonstructural improvements to increase forage production will be planned and scheduled through the allotment management process.
6. Livestock grazing in riparian areas will be controlled at levels of utilization listed in Management Area 7.
7. Allotments with continuous grazing during the growing period will be evaluated and alternative-grazing systems will be applied.

In addition, the Forest Plan uses management areas to guide management of specific National Forest lands within the Gallatin National Forest. Each management area (MA) provides for a unique combination of activities, practices, and uses. The Fridley Creek, Lewis Creek, Dry Creek, and Sunnybrook Allotments include eight management areas. (See Map 8).

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 by the action alternatives:

Management Area 6(MA6)–Dispersed Recreation: 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). Within the analysis area, approximately 250 acres are within MA6. 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 currently no public roads on any of the allotments. Limited public access is provided by Lewis Creek Trail # 181. Other public access to trails and roads within the allotments are only allowed with permission of the private landowners.

In MA 6, the standards for range include:

- Range management, such as deferred rotation, may be implemented to develop the range resource and distribute.
- Schedule new range improvements through the allotment management plan.
- Forage improvement projects may be initiated.

Management Area 7(MA7)-Riparian: These are riparian management areas (FP, p. III-19). Riparian pertains to the banks and other adjacent terrestrial environs of freshwater bodies, water courses, and surface emergent aquifers. Much of this area is not mapped because it is often a narrow zone that is not practical to map or estimate the number of acres within MA7. The management goal for MA7 is:

1) Manage the riparian resource to protect the soil, water, vegetation, fish, and wildlife dependent on it.

The Forest plan (MA7) requires the GNF to "manage riparian vegetation, including overstory tree cover, to maintain streambank stability and promote filtering of overland flows". The Forest plan monitoring requirements listed in Table IV-1, item 5, lists two guidelines and standards which relate to limits of cumulative allowable management caused change to sediment filtration i.e. "more than a 25% loss in effective streambank cover" and stream channel stability i.e."20 point increase in stream channel score within 5 years due to management practices".

The MA7 standards for range include provisions to maintain or improve riparian conditions:

- Range improvements such as fences and water structures may be constructed to help meet the forage utilization standards.
- Salting for livestock distribution will be outside of riparian areas
- Concentration of livestock will be kept at a level compatible with riparian zone-dependent resource needs through development of pasture systems and associated improvements

Management Area 8(MA8)-Timber Management: These areas consist of lands, which are suitable for timber management. Although this area consists primarily of capable forestland, there are inclusions of non-forest and nonproductive forestlands (FP, pp. III-24 through III-26). Within the analysis area, approximately 255 acres are within MA8. Management goals for MA 8 include:

1. Provide for productive timber stands and optimized timber growing potential.
2. Develop equal distribution of age classes to optimize sustained timber production and improve vegetative diversity.
3. Allow for other resource uses if compatible with the first two goals.
4. Meet Montana water quality standards and maintain channel stability.

In MA 8 the standards for range include:

- Use the Northern Region and Gallatin National Forest "Guidelines for the Protection of Regeneration from Livestock Grazing" to ensure protection of conifer regeneration.

Management Area 9(MA9)-Timber/Dispersed Recreation: These areas consist of suitable timberlands, which have high-dispersed recreation value and are visually sensitive. Portions of these areas are presently roaded (FP, pp. III-27 through III-29). Within the analysis area, approximately 10 acres are within MA9. Management goals for MA 9 include:

1. Provide for a variety of dispersed recreation activities in a roaded setting.
2. Harvest timber consistent with goals 1 and 2
3. Meet Montana water quality standards and maintain channel stability.

In MA 9 the standards for range include:

- Forage can be utilized by livestock.

Management Area 10(MA10)-Range/Timber:- These areas contain open grasslands, which provide forage for livestock interspersed with suitable timberlands (FP, pp. III-30 through III-32). Within the analysis area, approximately 640 acres are within MA10.
Management goals for MA 10 include:

1. Maintain healthy stands of timber and promote a level of timber growth consistent with the other goals.
2. Improve range management to optimize livestock grazing.
3. Use timber harvest to create transitory livestock range.

In MA 10 the standards for range include:

- Coordinate grazing and timber management to ensure tree regeneration after harvest.
- Structural improvements may be used to distribute grazing.

Management Area 11(MA11)-Forested Big Game Habitat: – These areas consist of forested big game habitat. They include productive forest lands that are available for timber harvest, provided that big game habitat objectives are met (FP, pp. III-33 through III-36). Within the analysis area, approximately 1530 acres are within MA11. Management goals for MA 11 include:

1. Maintain elk habitat effectiveness following timber harvest.
2. Base vegetative management on vegetative characteristics needed for featured wildlife species.
3. Allow a level of timber harvest consistent with goals 1 and 2.
4. Meet Montana water quality standards and maintain stream stability.

In MA 11 the standards for range include:

- On big game winter range, meet big game forage needs before making forage allocations to livestock.
- Base allocation of big gamesummer range forage on range allotment analysis.

Management Area 12(MA12)-Wildlife/Dispersed Recreation – These areas provide important habitat for summer ofr winter wildlife use in a variety of terrain and vegetative types and also offer dispersed recreational opportunities. (FP, pp. III-37 through III-39). Within the analysis area, approximately 175 acres are within MA12. Management goals for MA 12 include:

1. Maintain and improve the vegetative condition to provide habitat for a diversity of wildlife species.
2. Provide for a variety of dispersed recreational opportunities
3. Provide forage for livestock consistent with goal 1.

In MA 12 the standards for range include:

- On big game winter range, meet big game forage need before making forage allocations for 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.

Management Area 16(MA16)-Rangeland: These areas have open grasslands interspersed with nonproductive timber lands, generally on slopes less than 40 percent (FP, pp. III-50 through III-51). Within the analysis area, approximately 120 acres are within MA16. Management goals for MA 16 include:

1. Maintain or improve vegetative conditions and forage productions for livestock use.

In MA 16 the standards for range include:

- Implement intensive management systems to utilize the range resource

- Schedule forage improvement projects, such as sagebrush burning and poisonous plant control.
- Schedule structural improvements when identified in approved allotment management plan.

Management Area 17(MA17)-Range/Big Game:- These areas consist of grasslands or nonproductive forestlands on slopes less than 40 percent that are suitable for livestock grazing and contain important big game habitat. They contain some of the most productive and heavily used portions of range allotments (FP, pp. III-52 through III-53). Within the analysis area, approximately 2735 acres are within MA17. The goal of MA 17 is:

1. Maintain or improve vegetative conditions and forage production for livestock and wildlife usage.

In MA 17 the standards for range include:

- On big game winter range, big game forage needs are to be met before making forage allocations to livestock.
- Base allocation of big game summer range forage on range allotment analysis
- Schedule structural improvement when identified in an approved allotment management plan.
- Schedule forage improvement projects, such as sagebrush burning and poisonous plant control.

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

The Council on Environmental Quality (CEQ) regulations implementing NEPA require that federal agencies 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 should 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(a)). These actions help identify a range of alternatives.

The scope of actions to be addressed in this analysis is limited to management of cattle and horse grazing within the project area. Portions of the project area consist of intermixed National Forest and private lands that would be managed by the Forest Service. Private lands managed separately from National Forest System lands are not included within the allotments and are not being analyzed.

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 site-specific to range and vegetative management practices.

The Responsible Official for this proposal is the District Ranger of the Livingston Ranger District. Based on the analysis in this document, the District Ranger will make the following decisions and document them in a Decision Notice (DN) if a Finding of No Significant Impact (FONSI) can be made:

- Should the Forest Service continue to allow livestock grazing on any or all of the range allotments within the project area?

If so:

- What management and mitigation requirements are needed to move resource conditions towards meeting desired future conditions (1-9) in an acceptable timeframe?
- What monitoring requirements are appropriate to evaluate project implementation?

X. Preview of the Remaining Chapters

Chapter 2: Alternatives and Issues 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-no grazing), Alternative 2 (proposed action-current management) and Alternative 3 (adaptive management) are described in detail. Other alternatives considered, but not in detail are also discussed. The management requirements that are components of the proposed action and other alternatives are described. Monitoring methods used to assess aspects of the projects, including Adaptive Management monitoring requirements, are also included in Chapter 2.

Chapter 3: Affected Environment and Environmental Effects - Chapter 3 combines two major parts of a NEPA analysis: the affected environment and the environmental effects associated with the proposed action and the other alternatives. The physical, biological, and human resources of the environment that may be affected by the no action and the various action alternatives 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 may be affected by the proposed action and the other alternatives. Past, present and reasonably foreseeable activities, management direction, and applicable laws and regulation 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 Resource Issues – Resource issues determined not to be significant are discussed in this appendix.

Appendix B: Detailed Desired Future Conditions – A thorough discussion including tables depicting desired future riparian and individual stream conditions for each of the allotments are discussed in this appendix.