Preliminary Environmental Assessment

Snowies-Little Belts Grazing Permit Renewal

EA # MT060-08-52

August 2008

BLM

Lewistown Field Office

1.0 Purpose and Need

This environmental assessment (EA), MT060-08-52, analyzes public land resource issues within the Snowies – Little Belts administrative area and is part of a field office-wide planning effort to renew ten-year grazing permits.

The EA defines the issues, identifies the alternatives considered, describes the biological and physical characteristics of the affected environment, and explains the environmental consequences of each alternative.

The information in this chapter is organized into the following headings:

1.1 Background

The Bureau of Land Management (BLM), Lewistown Field Office (LFO), has undertaken a field office-wide planning effort, focused on fully processing and renewing all ten-year grazing permits. The LFO administers 850,000 acres of public land in nine central Montana counties; an area approximately 225 miles long by 150 miles wide. The vastness of this jurisdictional area, combined with direction from the Judith-Valley-Phillips Resource Management Plan (JVP RMP) has prompted the LFO to delineate smaller, manageable planning units.

1.2 Location

The Snowies – Little Belts administrative area is located in Fergus and Judith Basin Counties, Montana. It encompasses an area in the Little Snowy, Snowy, and Little Belt mountains and foothills, including Chippewa and McDonald Creeks. (Maps M1 and M2).

The watershed planning area contains 25,674 acres of land administered by the BLM (public land). A total of 81 BLM grazing allotments are permitted to 68 permittees. (Maps M1 and M2 and Appendix K).

1.3 Decision Needed

The LFO manager is the responsible official who must decide whether to implement decisions proposed in the preferred alternative. These decisions would include:

- Renewing grazing permits based on determinations of meeting Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Standards and Guidelines).

- Initiating and sustaining cooperative noxious weed control efforts.

- Implementing grazing management actions on allotments not meeting Standards and Guidelines.

1.4 Direction From and Conformance with Land Use Plans

The JVP RMP specifies land use plan decisions and objectives to be implemented in the Snowies – Little Belts EA. It also specifies that implementation of grazing management decisions will be conducted on a watershed basis and will consider management of streams, water sources and uplands.

Watersheds areas administered by the LFO were prioritized for implementation of land use plan decisions based on multiple use criteria.

The BLM is also required to complete an environmental analysis when renewing 10-year grazing permits. This EA will review the allotments in the Snowies – Little Belts for compliance with Standards for Rangeland Health (Appendix B). Existing permits will be cancelled and new 10-year grazing permits will be offered at the conclusion of this effort.

The JVP RMP was amended by the Standards for Rangeland Health and Guidelines for Livestock Grazing Management Environmental Impact Statement (USDI, BLM, 1997). Specific Standards and Guidelines were then developed for the Lewistown District with the benefit of public participation and conveyed as recommendations to the BLM by the Central Montana Resource Advisory Council (RAC). (Appendices A and B).

The JVP RMP set forth the land use decisions and conditions guiding management of public land and minerals within the Snowies – Little Belts area. All uses and activities within the area must conform with the decisions, terms and conditions described in this EA. Appendix L describes the land use plan guidance contained in the JVP RMP that is pertinent to this EA.

1.5 Issues and Objectives Specific to the Snowies – Little Belts EA

1.5.1 Upland Health

Issue: Lewistown Standard 1 for upland health recommended by the RAC is not being met for some of the upland areas on public land. Livestock are a significant factor in some cases.

Short-term objective: Maintain the 49 allotments that are meeting the upland standard, maintain or improve the 22 allotments that are not meeting the upland standard (not livestock caused), and take actions that would ensure significant progress is made toward meeting the standard on the 10 allotments that are not meeting the standard due to current livestock management. Also, enter into cooperative weed control agreements (or re-emphasize current cooperative agreements) with permittees where uplands are not meeting the health standard due to noxious weed infestations.

Long-term objective: Maintain or improve upland areas so that all allotments are meeting the upland health standard or making significant progress within 10 years where current livestock management is a significant factor affecting upland health.

1.5.2 Riparian Health

Issue: Recommended by the RAC, Lewistown Standard 2 (riparian and wetland areas are in proper functioning condition) is not being met for some of the riparian areas on public lands. Current livestock management is a significant factor in some cases.

Short-term objective: The BLM's goal is to improve and maintain riparian health on all streams within the planning area to proper functioning condition (PFC) or above. It is also to ensure the establishment and recruitment of cottonwood/willow and other desirable woody species on sites capable of supporting such species.

Long-term objective: Maintain or improve the 7.68 miles of riparian areas to Proper Functioning Condition (PFC) or above within 10 years.

1.5.3 Water Quality

Issue: Lewistown Standard 3 (Water quality meets Montana State standards) is not being met on two waterbodies within the planning area where BLM is a significant landholder, Dry Wolf Creek and North Fork Flatwillow Creek.

Short-term objective: The BLM aims to address the water quality concerns on the water quality impaired streams by generating improving trends in condition. This would be accomplished by at least maintaining riparian and upland areas that are in good health and improving degraded riparian and upland areas.
Long-term objective: Maintain or improve the 7.68 miles of riparian areas to Proper Functioning Condition (PFC) or above within 10 years.

1.5.4 Biodiversity

Issue: The biodiversity health standard recommended by the RAC is not being met on some allotments, primarily due to the presence of non-native vegetative species.

Short-term objective: Maintain the 32 allotments that are meeting the biodiversity standard, maintain or improve the 41 allotments that are not meeting the biodiversity standard (not livestock caused), and take actions that would ensure significant progress is made toward meeting the standard on the 8 allotments that are not meeting the standard due to current livestock management.

Long-term objective: Maintain or improve rangeland health so that all allotments are meeting the biodiversity standard or making significant progress within 10 years where current livestock management is a significant factor affecting biodiversity.

1.5.5 Noxious Weeds

Issue: Noxious weed populations are present on public, private, and state lands within the planning area.

Objective: Continue control of known noxious weed infestations and all newly identified infestations. Initiate new cooperative weed control agreements with grazing permittees within the planning area and re-emphasize current agreements. Eradicate any new populations of category 3 weeds (See Appendix J for a description of weed categories). Continue weed control partnerships with local, state, and federal agencies and private entities.

1.6 Issues Considered but Not Addressed in This Plan

The following issues were considered but determined not relevant for the purposes of this analysis.

- recreation
- access
- lands (exchanges and purchases)
- mining
- oil and gas field development

1.7 Issue Objectives Summary

Table 1.1 summarizes the issue objectives for Alternatives 1 and 2, which are described in Chapter 2.

Table 1.1 Summary of Issue Objectives for Alternatives 1 and 2

	Alternative 1	***Alternative 2***
Upland Health	10 allotments would not meet objectives due to livestock grazing.	All allotments would meet upland objectives.
Riparian Health	5 allotments would not meet objectives due to livestock grazing.	All allotments would meet riparian objectives.
Water Quality	1 allotment would not meet objectives due to livestock grazing.	All allotments would meet water quality objectives.
Biodiversity	8 allotments would not meet objectives due to livestock grazing.	All allotments would meet biodiversity objectives.
Noxious Weeds	The weed objective would be minimally met.	The weed objective would be met.

2.0 Alternatives, Including the Proposed Action

Two alternatives, including the proposed action, were developed to address the issues outlined in Chapter 1.

The information in this chapter is organized into the following headings:

The National Environmental Policy Act (NEPA) and BLM policy require preparation of an EA as an integral component of livestock grazing permit issuance or renewal. At a minimum, the EA must address the following:

- Issuing a new permit with the same terms and conditions as the expiring permit.

- Issuing a new permit based on Standards and Guidelines for rangeland health (proposed action).

2.1 Alternative 1 - <u>Continuation of Current Management.</u> This is the No Action Alternative.

Alternative 1 would renew the BLM grazing permits within the Snowies – Little Belts area with the same terms and conditions as the current permits. No changes would be made and range improvement projects would not be proposed or constructed. Cooperative weed control would not be made a condition of the grazing permit.

2.1.1 Rangeland Health Standards

Livestock grazing would remain consistent with the current permit and no new projects would be constructed to protect/enhance upland, riparian, biodiversity or water resource values. If allotments are currently not meeting standards and guidelines, this alternative would provide no measures for corrective actions. Issue objectives would not be met with this alternative.

2.1.2 Noxious Weeds

The BLM would continue current weed control efforts within the planning area, including chemical, biological and mechanical methods. Extreme caution would be taken to avoid damage to desirable vegetation, especially woody species in and adjacent to riparian areas.
The BLM would continue to develop cooperative agreements with livestock grazing permittees for noxious weed control on upland weed infestations. Under these agreements, the BLM agrees to provide the proper type and amount of herbicide and the permittee agrees to apply the herbicide. Application may be made by the properly licensed permittee or may be contracted to a licensed applicator at the permittee's cost. Biological control efforts would continue through release and dissemination of newly available and established biocontrol agents. Cooperative weed control agreements would be independent of the terms and conditions of renewed grazing permits. The issue objectives for weeds would be minimally met in this alternative.

2.2 Alternative 2 – <u>Proposed Action</u>

This alternative proposes changes to better manage desirable vegetation, water, soils, wildlife habitat and noxious weeds. Management changes for those allotments not

meeting standards and guidelines for rangeland health are included in the proposed action listed under each grazing allotment in section 2.2.1.

Vegetation treatments on crested wheatgrass may be initiated on some allotments. Noxious weed control efforts would be increased.

Limited range improvement projects are proposed including livestock water developments and maintenance, crossfences, exclosures, etc. Opportunities for rangeland health improvement as well as livestock production efficiency were analyzed. It is important to note that range improvement project funding occurs on a yearly basis and is variable from year to year. Funding is typically limited and never fulfills the total needs. In addition, even with adequate funding, staffing may limit the amount of project work that can occur in any given year. With this in mind, projects proposed within this plan would be prioritized and implemented based on the following key considerations:

- Allotments not meeting rangeland health standards; livestock grazing is a significant factor.

- Important resource values exist on the allotment (wildlife habitat, riparian/wetland habitat, fisheries habitat, etc.).

- Multiple resource value benefits would occur from the proposed action (wildlife, range, riparian, etc.).

- Projects are components of a grazing management system (e.g., deferment, rest, etc.).

Current grazing permits would be cancelled and new 10 year grazing permits would be offered with Standards and Guidelines for Rangeland Health and cooperative weed control agreements incorporated into the terms and conditions of the permit (Appendices A and B). In addition, allotment specific terms and conditions may be added to individual permits as identified in 2.2.1. Permits authorizing custodial grazing would include the following terms and conditions:

- Custodial grazing is authorized during the listed season. Grazing use will not exceed the recognized carrying capacity of the public land. This allotment may be used in conjunction with your normal operation as long as standards for rangeland health are being met or significant progress is being made toward achieving those standards (43 CFR 4180).

2.2.1 Rangeland Health Standards

Standards for livestock grazing developed by the Resource Advisory Council (RAC) (Appendix B) state that rangelands should be meeting or making significant and measurable progress toward meeting the upland, riparian, water quality, air and biodiversity standards for rangeland health. Significant progress toward meeting standards for rangeland health would be accomplished and guidelines followed through a variety of management techniques. Management on allotments that are not meeting standards would be modified to improve resource conditions and meet standards. Rangeland conditions which do not meet standards could be improved with changes to allotment management, including, but not limited to:

- increasing length of rest periods between grazing periods
- changing season of use
- altering livestock turnout location
- changing grazing intensity
- changing grazing duration
- improving livestock distribution

Improved livestock distribution could be achieved through construction of water developments and fences, selective salt and/or mineral placement, and changes to livestock turnout location and season of use. In some cases exclosure fencing would be used to protect upland and/or riparian areas. Specific details are listed by allotment below.

Guidelines for Livestock Grazing Management have been developed by the Resource Advisory Council (RAC) with input from the public (Appendix A). Upland objectives were developed for individual allotments on a case by case basis, based on vegetation production and ground cover objectives consistent with the site potential by soil series or ecological site. Under Alternative 2, stubble height or percent utilization limits of key upland grass species would be applied as a monitoring tool to ensure upland objectives and guidelines for livestock grazing management are met. The stubble height or utilization limit is based on studies that demonstrate greater vigor of grasses grazed at moderated levels (Heardy 1950, Troxel and White 1989, Vallentine 1990, Van Pollen and Lacey 1997). The most common key forage species for the Snowies – Little Belts are: bluebunch wheatgrass (Agropyron spicatum), green needlegrass (Stipa viridula), western wheatgrass (Agropyron smithiii), and Idaho fescue (Festuca idahoensis). The forage utilization limit of key upland grass species would be limited to 4 inches (6 inch stubble height for bluebunch wheatgrass) or 50% at the end of the grazing season. Appropriate and timely action would be taken if the stubble height or percent utilization measurements indicate that grazing management is not achieving the desired upland objectives or if significant progress is not being made toward meeting standards.

During periods of drought, public land livestock grazing management would be administered in accordance with the BLM's Montana/Dakotas drought policy.

Although it is understood that riparian stubble height and woody species utilization do not fill the role of a long-term management objectives, they can be used as a direct and indirect guide for current grazing impacts to riparian areas (Clary and Leininger, 2000). Stubble height and woody species utilization will be used as indicators of the current year's grazing impacts.

Utilization of key, palatable, woody species such as Salix spp. (willows) and Populus spp. (cottonwoods) would be limited to light-to-moderate browsing as described in "Browse Evaluation By Analysis of Growth Form, Volume 1, Methods for Evaluating Condition and Trend" (Keigley and Frisina, 1998).

Utilization of key riparian grasses would be limited to an average 4" stubble height.

A monitoring strategy for each reach will be decided based upon the inventory data. The LFO will monitor the soil, hydrology, or vegetation attribute which caused the reach to be at risk or nonfunctional (the NO's on the PFC checklist). For example, if it was a vegetation attribute such as large percentages of bare ground or disturbance related plant species (i.e. Kentucky Bluegrass or Foxtail Barley), the monitoring strategy will be greenline composition and successional status found in Winward (2000). If a soil or hydrology attribute such as streambank alteration or lack of root mass protection is the cause of degradation, the monitoring strategy will be greenline stability rating and percent streambank alteration.

The utilization of preferred woody species and key riparian grasses and streambank alteration measurements are not objectives, but rather they are indicators of impending resource damage and triggers for movement of livestock. If intense browse levels are noted on preferred woody species or the 4" stubble height requirement is met, it is time for livestock to be moved. The browse level on preferred woody species needs to be looked at where there are enough plants to conduct a browse survey. Widely spaced, individual plants are not appropriate. Failure to meet the stubble height requirement or intense browsing would prompt an assessment of resource condition and indicate the need to make appropriate changes.

Requirements for resting areas from livestock grazing following fire would depend on a variety of factors including resource objectives, the type of fuel, time of burn, accessibility of the burned area to livestock, and post-burn climatic factors. Typically, a two growing season rest would be required following a wildfire. If an affected pasture could not be excluded for the prescribed rest period, The BLM would provide and

install/remove temporary fencing to facilitate the required rest period.

Although there are many streams within the planning area's boundary that are listed in Montana Department of Environmental Quality's (MDEQ) water quality database, the following discussion is geared towards the listed waterbodies that BLM land borders or is a significant landowner within the watershed. These streams include Dry Wolf Creek, North Fork Flatwillow Creek, and South Fork Flatwillow Creek. BLM has evaluated resource conditions and plans to address allotments with degraded upland and riparian range condition in order to improve water quality. South Fork Flatwillow Creek is listed in water quality category 1, which means that all uses have been assessed and are fully supported.

Air quality in the Snowies – Little Belts area is generally considered good to excellent; the air quality standard is being met on all allotments.

The biodiversity standard is not being met on the majority of allotments within the Snowies – Little Belts planning area. Primary causes for the biodiversity standard not being met are non-native vegetative species and noxious weeds. Allotments may also fail to meet the biodiversity standard due to insufficient residual vegetative cover caused by livestock grazing. Management actions are proposed on allotments not meeting the biodiversity standard due to livestock grazing; proposed actions would lead to significant progress toward meeting the standard. Actions are also proposed on some allotments not meeting the biodiversity standard where livestock grazing is not the primary cause; examples would include modified utilization patterns of crested wheatgrass.

Appendices D, E, and F describe the current status of the allotments and permits in the planning area. Maps M1 and M2 show the location of the allotments. A summary table of standards determinations for each allotment in the Snowies – Little Belts EA is located in Appendix M.

Under Alternative 2, the following actions would be implemented to insure allotments meet the standards for rangeland health or make significant progress toward meeting the standards.

The BLM frequently receives inquiries from organizations, individuals and media for information about grazing permits and permittees. The BLM's Washington Office, in consultation with the solicitor's office, has recommended that such inquires be treated as Freedom of Information Act requests. Doing so allows the BLM to provide consistent responses and to comply with a Privacy Act notice that covers grazing permits. Until LFO receives further guidance, the names of livestock grazing permittees will not be used in watershed planning documents. This watershed plan is keyed to a numerical system and each permittee was informed, by letter, of which number refers to his/her allotment(s). The permitted use in animal unit months (AUMs) applies only to public land administered by the BLM.

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Snowies – Little Belts Grazing Allotments:

Identification No. - 001
South Elk Creek, Allotment 02802
Public acres – 480
AUMs - 164
Public land – 100%
Livestock No. – 14 cattle
Season of Use – 3/01-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.
- Maintain upland range health.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 14 cattle, 164 AUMs, season of use – 03/01-2/28, 100% custodial. Total preference would remain 164 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 002
Luther – Allotment 20054
Public acres – 400
AUMs - 36
Public land - 100%
Livestock No. – 3 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Reduce the amount of leafy spurge and houndstongue on the allotment, and prevent spread of noxious weeds to adjacent public and private lands.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 3 cattle, 36 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 36 AUMs.

Range Improvements: The BLM would develop and implement a weed control cooperative agreement with the permittee. Weed control efforts would emphasize prevention of spread and containment and control of existing weed populations within the allotment.

Identification No. - 003
Nebel Coulee – Allotment 09665
Public acres – 543
AUMs - 67
Public land – 100%
Livestock No. – 10 cattle & 2 cattle
Season of Use – 6/1-10/31
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No; not livestock caused.

Upland Objectives:
- Maintain upland vegetation in mid seral stage. Objectives are limited by historic non-native grass species introduction.

Meeting Riparian Health Standard:

- Yes.

Riparian Objectives:
- Maintain the riparian area health on the unnamed tributary of Big Otter Creek to PFC or above.
- Continue to support a diverse age class and composition of Rocky Mtn. Maple, water birch, and willow.

Meeting Water Quality Standard:
- Yes

Water Quality Objectives:
- Maintain stream channel function on the unknown tributary of Big Otter Creek.

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Reduce the amount of houndstongue on the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; East Pasture, 10 cattle, 56 AUMs, season of use – 6/1-10/31, 100% custodial; West Pasture, 2 cattle, 11 AUMs, season of use – 6/1-10/31, 100% custodial. Total preference would remain 67 AUMs.

Livestock use on the majority of the allotment is limited due to the lack of adequate water, steep terrain and timber.

Range Improvements: The BLM would develop and implement a weed control cooperative agreement with the permittee. Weed control efforts would emphasize containment and control of existing weed populations within the allotment and prevention of noxious weed spread to and from the public land. Leafy spurge was observed on nearby private land.

Identification No. - 004
Harlow Ranch, Allotment 10038
Public acres – 120
AUMs - 12
Public land – 100%
Livestock No. – 2 cattle
Season of Use – 6/1-11/30
Grazing System – None
Type of Use - Active

Meeting Upland Standard:
- No; not livestock caused.

Upland Objectives:
- Maintain upland vegetation in mid seral stage. Objectives are limited by historic non-native grass species introduction and timber.

Meeting Riparian Health Standard:
- N/A.

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A.

Water Quality Objectives:
- N/A.

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Maintain biodiversity. Objectives are limited by historic non-native grass species introduction.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 2 cattle, 12 AUMs, season of use – 6/1-11/30, 100% active. Total preference would remain 12 AUMs.

The allotment is dominated by conifer forest and small aspen groves. Herbaceous vegetation is primarily non-native grass species including timothy, Kentucky bluegrass and smooth brome. Efforts to reduce or replace non-native grass species would not be cost efficient and are not proposed by the BLM.

Range Improvements: No range improvements are proposed.

Identification No. - 005
South Forest Grove, Allotment 12604
Public acres – 320
AUMs - 79
Public land – 100%
Livestock No. – 7 cattle
Season of Use – 3/1–2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No; not livestock caused (crested wheatgrass).

Upland Objectives:
- Maintain or improve upland vegetation to late seral stage.
- Utilize crested wheatgrass while most palatable early in the grazing season to allow for increase in native vegetation species composition and vigor.

Meeting Riparian Health Standard:
- Yes

Riparian Objectives:
- Maintain riparian area health on the unknown tributary of the South Fork of McDonald Creek to PFC or above.
- Continue to support a diverse age class and composition of willow, chokecherry and buffaloberry.

Meeting Water Quality Standard:
- Yes

Water Quality Objectives:
- Maintain streambank vegetative cover of obligate wetland species and channel function.

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Increase the composition of native vegetative species by controlling noxious weeds and properly utilizing crested wheatgrass.

Conforms to Livestock Grazing Management Guidelines: No.

Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 7 cattle, 79 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 79 AUMs.

The following term and condition would be added to the grazing permit: Livestock grazing on the crested wheatgrass portion of the allotment would occur, when possible, prior to June 15.

Range Improvements: The allotment contains spotted knapweed. The BLM and permittee have signed and implemented a weed control cooperative agreement. Weed control efforts would continue to emphasize containment and control of existing weed populations within the allotment and prevention of the spread of weed infestations.

Identification No. - 006
Buck Ridge, Allotment 02619
Public acres – 207
AUMs - 47
Public land – 100%
Livestock No. – 6 cattle
Season of Use – 5/1-12/31
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain native vegetation in late seral stage.

Meeting Riparian Health Standard:
- No

Riparian Objectives:
- Continue improvement of the riparian area on the unknown tributary of the North Fork of McDonald Creek to PFC or above.

Meeting Water Quality Standard:
- Yes

Water Quality Objectives:
- Maintain diverse composition of sedges and rushes on the unknown tributary of the North Fork of McDonald Creek.

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts and upgrading two spring developments.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 6, 9 (water developments and weeds, see Appendix A).

Proposed Action: Two spring developments on the allotment are in poor condition and in need of repair/reconstruction. The required work may include installation of new water collection basins and associated exclosure fences, pipelines, stocktanks, and overflows.

The current permitted use would be modified to a season and numbers authorization; 9 cattle, 47 AUMs, season of use - 5/1-10/01, 100% custodial. Total preference would remain 47 AUMs.

Range Improvements: A cooperative weed control agreement has been implemented. The BLM and permittee would continue weed control within the allotment as directed in the cooperative agreement.

The permittee and BLM propose reconstruction of existing spring developments located in T. 14 N., R. 22 E., sec. 6, NW¼SE¼, and the SW¼NW¼. The BLM and permittee would update the existing range improvement cooperative agreements for these projects; the BLM would provide technical assistance, oversight and specifications; the permittee would provide all labor and materials to complete the projects.

Identification No. - 007
Surenough Creek, Allotment 12607
Public acres – 643
AUMs - 167
Public land – 100%
Livestock No. – 14 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Active

Meeting Upland Standard:
- No.

Upland Objectives:
- Reduce the amount of undesirable forb species including annual mustard, black medic and curlycup gumweed.
- Reduce the percentage of bare ground through increased amounts of litter and perennial grasses.

Meeting Riparian Health Standard:
- No

Riparian Objectives:
- Improve riparian area health on Surenough Creek to PFC or above.
- Increase the recruitment of desired woody vegetation (including willow, birch, Rocky Mtn. maple, etc.)
- Decrease stream channel width to depth ratios.

Meeting Water Quality Standard:
- Yes

Water Quality Objectives:
- Increase streambank stabilizer plant species on Surenough Creek (including Nebraska and beak sedge).

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- The same as upland, riparian and water quality objectives.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 2, 4, 10 (riparian health and water quality, see Appendix A).

Proposed Action: The BLM proposes limiting the season of use within the Surenuff pasture to 6/10-6/30, thereby reducing hot season grazing along Surenough creek. The proposed changes would also more accurately define the grazing season and number of cattle utilizing the allotment, helping the uplands meet or make significant progress toward meeting the rangeland health standard.
The current permitted use would be modified;

- Surenuff Pasture - 95 cattle, 66 AUMs, season of use – 6/10-6/30, 100% active.
- Custodial Pasture – 9 cattle, 102 AUMs, season of use – 3/1-2/28, 100% active.
- Total preference would remain 168 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 008
Bear Creek Headwaters, Allotment 02817
Public acres – 240
AUMs - 73
Public land – 100%
Livestock No. – 7 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: No. Guidelines not conformed to: No. 8 (salt/mineral placement, see Appendix A).

Proposed Action: The current permitted use would continue; 7 cattle, 73 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 73 AUMs.

The permittee would be required to move the salt/mineral tub a minimum of ¼ mile from the developed spring/water tank or any other livestock water source on public land.

Range Improvements: No range improvements are proposed.

Identification No. - 009
Vinger Place, Allotment 02526
Public acres – 40
AUMs – 11
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A
-

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 6 (water developments, see Appendix A).

Proposed Action: The current permitted use would continue; 1 cattle, 11 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 11 AUMs.

Range Improvements: The permittee proposes installation of a stock tank on an existing spring development. The permittee would provide all materials and labor to complete this improvement.

Identification No. - 010
Moulton, Allotment 02679
Public acres – 320
AUMs – 86
Public land – 100%
Livestock No. – 7 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No.

Upland Objectives:
- Utilize crested wheatgrass while most palatable early in the grazing season to allow for increase in native vegetation species composition and vigor.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity within the allotment through optimum utilization of crested wheatgrass and continued noxious weed control.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 8, 12 (supplemental feeding and native plants, see Appendix A).

Proposed Action: The current permitted use would be modified; 11 cattle, 86 AUMs, season of use – 4/1-6/15 and 10/1-2/28, 100% custodial. Total preference would remain 86 AUMs.

The following term and condition would be added to the grazing permit: Custodial grazing is authorized during the listed season. Grazing use will not exceed the recognized carrying capacity of the public land. This allotment may be used in conjunction with your normal operation as long as standards for rangeland health are being met or significant progress is being made toward achieving those standards (43 CFR 4180).

The permittee would be required to remove the bale feeder(s) and calving shed(s) from public land.

Range Improvements: No range improvements are proposed.

Identification No. - 011
Twin Sisters, Allotment 09695
Public acres – 119
AUMs – 17
Public land – 100%
Livestock No. – 2 cattle
Season of Use – 4/1-11/30
Grazing System – None

Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- No.

Riparian Objectives:
- Improve riparian habitat to PFC or above.

Meeting Water Quality Standard:
- Yes.

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 6, 10 (spring development and water quality, see Appendix A).

Proposed Action: An undeveloped spring is located on public land within this allotment. The spring is a heavily utilized livestock water source. The BLM proposes to construct an exclusionary fence around the spring to prevent further livestock degradation.

The current permitted use would continue; 2 cattle, 17 AUMs, season of use - 4/1-11/30, 100% custodial. Total preference would remain 17 AUMs.

Range Improvements: A buck and pole (jack-leg) or log worm fence would be constructed around the spring located in: T. 12 N., R. 13 E., sec. 26, SE¼SE¼. The BLM and permittee would enter into a range improvement cooperative agreement for this proposed project. The BLM would provide all materials and construct the 500 foot long fence from manufactured and/or materials obtained on-site. The permittee would assume all maintenance responsibilities for the project.

Identification No. - 012
Single, Allotment 02618
Public acres – 517
AUMs – 154
Public land – 100%
Livestock No. – 13 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No.

Upland Objectives:
- Utilize crested wheatgrass while most palatable early in the grazing season to allow for increase in native vegetation species composition and vigor.
- Improve vegetation to mid or late seral stage in areas not influenced by an existing prairie dog town.

Meeting Riparian Health Standard:
- Yes

Riparian Objectives:
- Maintain riparian area health on the unnamed wetland within the allotment to PFC or above.
- Continue to support vigorous wetland species and wetland function.

Meeting Water Quality Standard:
- Yes

Water Quality Objectives:
- Maintain condition of the vegetative buffer surrounding the wetland.

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Maintain biodiversity within the allotment through optimum utilization of crested wheatgrass and continued noxious weed control.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The allotment contains a high percentage of non-native crested wheatgrass and some leafy spurge. The permittee is utilizing the crested wheatgrass for early spring grazing augmented by fall grazing of fall greenup, if available. The BLM and permittee do not propose any changes to the grazing schedule. The current permitted use would continue; 13 cattle, 154 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 154 AUMs.

Range Improvements: A cooperative weed control agreement has been implemented. The BLM and permittee would continue weed control within the allotment as directed in the cooperative agreement.

Identification No. - 013
Finkbeiner EOU, Allotment 02699
Public acres – 117
AUMs – 36
Public land – 100%
Livestock No. – 3 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use – Exchange of Use

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.
- Maintain upland range health.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 3 cattle, 36 AUMs, season of use – 3/1-2/28, 100% exchange of use.

Range Improvements: No range improvements are proposed.

Identification No. - 014
Butler Coulee, Allotment 02652
Public acres – 40
AUMs – 6
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 5/1-12/1
Grazing System – None
Type of Use - Custodial.

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would be continue; 1 cattle, 6 AUMs, season of use – 5/1-12/1, 100% custodial. Total preference would remain 6 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 015
Athern Creek, Allotment 02814
Public acres – 280
AUMs – 70
Public land – 100%
Livestock No. – 6 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 6 cattle, 70 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 70 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement. No additional range improvements are proposed.

Identification No. - 016
Blacktail Hills, Allotment 09834
Public acres – 280
AUMs – 30
Public land – 100%
Livestock No. – 2 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain current seral stage on upland vegetation within the allotment.
-

Meeting Riparian Health Standard:
- Yes.

Riparian Objectives:
- Maintain riparian habitat in PFC or above.
- Continue to support a diverse age class and composition of quaking aspen, cottonwood and willow.

Meeting Water Quality Standard:
- No.

Water Quality Objectives:
- Address water quality concerns by maintaining the reach of Dry Wolf Creek within the allotment in PFC.

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 2 cattle, 30 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 30 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 017
Dinger, Allotment 02809
Public acres – 480
AUMs – 163
Public land – 100%
Livestock No. – 14 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No.

Upland Objectives:
- Utilize crested wheatgrass in the north parcel while most palatable early in the grazing season to allow for increase in native vegetation species composition and vigor.
- Maintain vegetation in late seral stage on the middle parcel.
- Improve vegetation to late seral stage on the south parcel through increased amounts of desirable native grasses including bluebunch wheatgrass and green needlegrass.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Increase the composition of native vegetative species by controlling noxious weeds and properly utilizing crested wheatgrass.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9, 13 (weeds and native plants, see Appendix A).

Proposed Action: The current permitted use would continue; 14 cattle, 163 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 163 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement. No additional range improvements are proposed.

Identification No. - 018
Beaver Ball Creek, Allotment 02810
Public acres – 86
AUMs – 26
Public land – 100%
Livestock No. – 2 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.
- Maintain upland range health.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 6, 9 (water developments and weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 2 cattle, 26 AUMs, season of use – 3/1-2/28, 100% custodial.
Total preference would remain 26 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement. No additional range improvements are proposed.

A developed spring and associated small pit reservoir are located in the southwest portion of the BLM parcel. A cooperative agreement has been signed and implemented for this spring development; the permittee is responsible for maintenance. The permittee would be required to fence the spring source for protection from livestock or other activities.

Identification No. - 019
Browns Canyon, Allotment 09711
Public acres – 120
AUMs – 48
Public land – 100%
Livestock No. – 4 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Active

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.
- Maintain upland range health.

Meeting the Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would be modified from active use to custodial use; 4 cattle, 48 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 48 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 020
Atherton Creek, Allotment 02622
Public acres – 152
AUMs – 26
Public land – 100%
Livestock No. – 2 cattle
Season of Use – 3/1-2/28
Grazing System – Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.
- Maintain upland range health.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:

- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:

- N/A

Water Quality Objectives:

- N/A

Meeting Biodiversity Standard:

- No.

Biodiversity Objectives:

- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 2 cattle, 26 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 26 AUMs.

A spring development on the allotment is in poor condition and in need of repair. The required work may include installation of new water collection basins and associated exclosure fences, pipelines, stocktanks, and overflows.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement. No additional range improvements are proposed.

The permittee proposes repair of an existing spring development located in T. 14 N., R. 22 E., sec. 5, NE¼NW¼. The BLM and permittee would update the existing range improvement cooperative agreement for the project; the BLM would provide technical assistance, oversight and specifications; the permittee would provide all labor and materials to complete the project.

Identification No. - 021
Blacktail Creek, Allotment 02811
Public acres – 40
AUMs – 12
Public land – 100%
Livestock No. - 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Active

Meeting Upland Standard:

- Yes.

Upland Objectives:

- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:

- N/A

Riparian Objectives:

- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:

- N/A

Water Quality Objectives:

- N/A

Meeting Biodiversity Standard:

- No.

Biodiversity Objectives:

- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would be modified; 1 cattle, 12 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 12 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement. No additional range improvements are proposed.

Identification No. - 022
Forest Grove, Allotment 02651
Public acres – 200
AUMs – 45
Public land – 100%
Livestock No. – 4 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage on the L.U. portion of the allotment.
- Improve vegetation to late seral stage on the 40 acre P.D. parcel.

Meeting Riparian Health Standard:
- Yes.

Riparian Objectives:
- Maintain riparian area health on the unknown tributary of the South Fork of McDonald Creek to PFC or above.
- Maintain streambank vegetative cover of wetland species.

Meeting Water Quality Standard:
- Yes.

Water Quality Objectives:
- Maintain streambank vegetative cover of wetland species.

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 4 cattle, 45 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 45 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 023
McCartney Creek, Allotment 02812
Public acres – 240
AUMs – 18
Public land – 100%
Livestock No. – 2 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain current seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; E.G. 1 cattle, 9 AUMs, season of use - 3/1-2/28, 100% custodial; L.T. 1 cattle, 9 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 18 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 024
Grass Range, Allotment 02626
Public acres – 520
AUMs – 176 (88rg & 88d&dm)
Public land – 100%
Livestock No. – 44 cattle
Season of Use – 5/15-9/15
Grazing System – Custodial

Meeting Upland Standard:
- No.

Upland Objectives:
- Improve vegetation to late seral stage in the north pasture through increased amounts of desirable native vegetation including bluebunch wheatgrass and green needlegrass, and the reduction of annual brome grasses.
- Utilize crested wheatgrass in the south pasture while most palatable early in the grazing season to allow for increase in native vegetation species composition and vigor.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts and utilizing crested wheatgrass to optimize native vegetation capability.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 5, 8, 9, 13 (desirable plant communities, salt/mineral placement, weeds, and native plants, see Appendix A).

Proposed Action: Two permittees graze this public land simultaneously as a common allotment. The BLM and permittees propose to split the allotment equally and issue new grazing authorizations. The resultant allotments would be equal in AUMs, but the seasons of use would be adjusted to reflect the higher percentage of crested wheatgrass in the south pasture.

The permitted use would be modified;
- Grass Range North; 35 cattle, 88 AUMs, season of use – 7/10-9/30, 92% active.
- Grass Range South; 37 cattle, 88 AUMs, season of use – 4/20-6/30, 100% active.

The 92% federal range (40 acres, 8 AUMs) is based on the 40 acres of deeded land the permittee would use in conjunction with the public land to supply livestock water for the Grass Range North allotment.

Total preference would be modified to 88 AUMs for each new allotment.

The permittee would be required to move the salt/mineral tub a minimum of ¼ mile from the reservoir in the southeast portion of the allotment.

Range Improvements: The allotment contains leafy spurge. The BLM and both permittees have signed and implemented weed control cooperative agreements.

The BLM and permittees propose re-alignment of an existing pasture fence to split the allotment equally. The re-alignment would be a permanent 3-wire barbed wire fence located in T. 15 N., R. 23 E., sec. 27, commencing at the quarter corner between sections 22 and 27, extending southerly to a point to be determined along the existing east/west pasture fence in sec. 27 which would equally split the allotment. The portion of the existing fence west of the intersection of the new fence and the existing fence would be removed.

The BLM and permittees would enter into a cooperative range improvement agreement for this proposed project. The BLM would provide all fence construction specifications and all

materials required in addition to the salvaged materials from the removed section of fence. The permittees would provide labor and assume all maintenance responsibilities for the public and private land portions of the fence projects.

The existing range improvements would be reassigned determined by location within the new allotments.

Identification No. - 025
Hansen Coulee, Allotment 09793
Public acres – 400
AUMs – 20
Public land – 100%
Livestock No. – 2 cattle
Season of Use – 3/1-2/28
Grazing System – Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.
- Maintain upland range health.

Meeting Riparian Health Standard:
- N/ A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 2 cattle, 20 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 20 AUMs.
Range Improvements: No range improvements are proposed.

Identification No. - 026
Martin Creek, Allotment 09859
Public acres – 80
AUMs – 16
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No.

Upland Objectives:
- Improve vegetation to late seral stage. Upland standard is not being met due to dense clubmoss; trend is up.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: No.
Guiedlines not conformed to: No. 5 (desired plant communities and upland utilization, see Appendix A).

Proposed Action: Based on limited resources and management objectives, the current permitted use would continue; 1 cattle, 16 AUMs, season of use - 3/1-2/28, 100%

custodial. Total preference would remain 16 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 027
Harlow, Allotment 19730
Public acres – 200
AUMs – 64
Public land – 100%
Livestock No. – 21 cattle
Season of Use – 6/1-8/31
Grazing System – Active

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.
- Maintain upland range health.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through increased leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 21 cattle, 64 AUMs, season of use – 6/1-8/31, 100% active. Total preference would remain 64 AUMs.

Range Improvements: The BLM would develop and implement a weed control cooperative agreement with the permittee. Weed control efforts would emphasize prevention of spread and containment and control of existing weed populations within the allotment.

Identification No. - 028
Green Pole, Allotment 20049
Public acres – 40
AUMs – 5
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 6/1-10/31
Grazing System – None
Type of Use - Active

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain upland health.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would be modified; 1 cattle, 5 AUMs, season of use - 6/1-10/31, 100% custodial. Total preference would remain 5 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 029
Becket, Allotment 02518
Public acres – 600
AUMs – 132
Public land – 100%
Livestock No. – 19 cattle
Season of Use – 4/15-11/15
Grazing System – None
Type of Use - Active

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 6, 9 (water developments and weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 19 cattle, 132 AUMs, season of use – 4/15-11/15, 100% active. Total preference would remain 132 AUMs.

Range Improvements: A developed spring utilized for livestock water is located in T. 14 N., R. 22 E., sec. 27, NE¼NW¼. The stockwater tank at the spring is in non-functioning condition. A cooperative range improvement agreement has been signed and implemented between the BLM and the permittee; the permittee is responsible for maintenance. The permittee has agreed to provide all materials and labor required to replace the tank.

The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement.

Identification No. - 030
Pulp 40, Allotment 02527
Public acres – 40
AUMs – 2
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No.

Upland Objectives:
- Maintain vegetation in current seral stage.
- The allotment is dominated by Ponderosa pine and leafy spurge.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9, 13 (weeds, and native plants, see Appendix A).

Proposed Action: The BLM recommends that this allotment be retired from grazing. Authorized livestock do not have sufficient access to the limited amount of forage resources present on public land. The allotment is dominated by steep topography and dense stands of timber. Any livestock use that may occur on BLM land is incidental and does/will not contribute to the allotment not meeting the standards for rangeland health. During the interim prior to an RMP update, the current permitted use would continue; 1 cattle, 2 AUMs, season of use – 3/1-2/28, 100% custodial. The total preference would remain 2 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement.

Identification No. - 031
Cache Creek, Allotment 09750
Public acres – 40
AUMs – 8
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 6/1-10/15
Grazing System – Deferred Rotation
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- No.

Riparian Objectives:
- Improve riparian habitat on .26 miles of Cache Creek to PFC or above.

Meeting Water Quality Standard:
- Yes.

Water Quality Objectives:
- Maintain water quality within the allotment.

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 2, 4, 10 (riparian vegetation and water quality, see Appendix A).

Proposed Action: The permittee and BLM have proposed changing the grazing season of use to 5/1-10/31. This allotment is utilized by the permittee in a deferred rotation grazing system with adjacent private lands.

The current permitted use would be modified; 1 cattle, 8 AUMs, season of use - 5/1-10/31, 100% custodial. Total preference would remain 8 AUMs.

The permit would incorporate a term and condition limiting grazing on the BLM land to six weeks or less each year. The permittee would be responsible for documenting period of use each year.

Range Improvements: No range improvements are proposed.

Identification No. - 032
Willow Creek, Allotment 02807
Public acres – 887
AUMs – 144
Public land – 100%
Livestock No. – 12 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Active

Meeting Upland Standard:

- Yes.

Upland Objectives:

- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:

- N/A

Riparian Objectives:

- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:

- N/A

Water Quality Objectives:

- N/A

Meeting Biodiversity Standard:

- No.

Biodiversity Objectives:

- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 11 (weeds, see Appendix A).

Proposed Action: The current permitted use would modified from active use to custodial use; 12 cattle, 144 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 144 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement.

Identification No. - 033
Pronghorn Ranch, Allotment 02826
Public acres – 1,135
AUMs – 145
Public land – 100%
Livestock No. – 13 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use – Custodial

Meeting Upland Standard:

- No.

Upland Objectives:

- Improve vegetation to late seral stage.
- Increase the shrub and forb upland vegetation component. The allotment lacks the expected percentage of shrubs and forbs in the uplands. The permittee has indicated that an inadvertent herbicide application by a contractor is responsible for the forb and shrub mortality. Future herbicide applications on non-target species are not anticipated by the BLM or permittee.

Meeting Riparian Health Standard:

- N/A

Riparian Objectives:

- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:

- N/A

Water Quality Objectives:

- N/A

Meeting Biodiversity Standard:

- No.

Biodiversity Objectives:

- Improve biodiversity through continued leafy spurge control efforts. Note herbicide damage to skunkbrush sumac and other wildlife forage indicated in upland objective above.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 11 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 13 cattle, 145 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 145 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement. No additional range improvements are proposed.

Identification No. - 034
Flying O, Allotment 09738
Public acres – 120
AUMs – 7
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/a

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 1 cattle, 7 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 7 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 035
Willow Creek Headwaters, Allotment 19737
Public acres – 80
AUMs – 16
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 1 cattle, 16 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 16 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 036
Six Diamond, Allotment 19824
Public acres – 40
AUMs – 8
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 4/15-10/31

Grazing System – None
Type of Use – Custodial

Meeting Upland Standard
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.
-

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 1 cattle, 8 AUMs, season of use – 4/15-10/31, 100% custodial. Total preference would remain 8 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 037
Springs Lease, Allotment 02534
Public acres – 160
AUMs – 42
Public land – 100%
Livestock No. - 4 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No. Not livestock caused; (dense clubmoss). Trend is up.

Upland Objectives:
- Improve vegetation to late seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 11 (weeds, see Appendix A).

Proposed Action: The allotment is currently grazed from November to April; the BLM does not propose any management changes due to the current upward trend. The current permitted use would continue; 4 cattle, 42 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 42 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement.

Identification No. - 038
Many Springs, Allotment 02816
Public acres – 160
AUMs – 41
Public land – 100%
Livestock No. – 4 cattle
Season of Use – 3/1-2/28
Grazing System – None

Type of Use - Custodial

Meeting Upland Standard:
- No. Not livestock caused (non-native vegetative species including alfalfa).

Upland Objectives:
- Improve vegetation to late seral stage through increased amounts of desirable native grass species.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 11 (weeds, see Appendix A).

Proposed Action: The upland and biodiversity standards are not being met due to the presence of non-native vegetative species including alfalfa. Though non-native, alfalfa contributes positively to the wildlife forage value of this allotment; the BLM does not propose any management changes to reduce the percentage of alfalfa. The current permitted use would continue; 4 cattle, 41 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 41 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement.

Identification No. - 039
Mary's Knoll, Allotment 09751
Public acres – 80
AUMs – 8
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 1 cattle, 8 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 8 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 040
Lehfeldt Ind., Allotment 02818
Public acres – 480
AUMs – 35

Public land – 100%
Livestock No. – 3 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- Yes.

Riparian Objectives:
- Maintain riparian area health on the unknown tributary of the South Fork of McDonald Creek to PFC or above.
- Continue to support a diverse age class and composition of quaking aspen, chokecherry and Rocky Mtn. maple.

Meeting Water Quality Standard:
- Yes

Water Quality Objectives:
- Maintain streambank vegetative cover of obligate wetland species and channel function.

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 3 cattle, 35 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 35 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 041
South Fork Ranch, Allotment 02820

Public acres – 360
AUMs – 30
Public land – 100%
Livestock No. – 4 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: This allotment is largely inaccessible to livestock due to heavy timber and steep slopes. The current permitted use would continue; 4 cattle, 30 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 30 AUMs.

Range Improvements: The Mid-State fence, project No. 449675 within this allotment is not constructed to BLM specifications. The fence contains more than 4 strands of barbed wire; BLM policy limits fences to 4 wires. The BLM proposes policy compliance of this fence by requesting the permittee to remove unnecessary strands of wire. The .25 mi. fence is located on the southern border in T. 12 N., R. 20 E., sec. 23, SE¼NW¼.

Identification No. - 042
Potter Creek, Allotment 02831
Public acres – 120
AUMs – 42
Public land – 100%
Livestock No. – 4 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The majority of this allotment is inaccessible to grazing due to steep slopes and heavy timber. The current permitted use would continue; 4 cattle, 42 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 42 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 043
Alkali Creek, Allotment 02645
Public acres – 320
AUMs – 66
Public land – 100%
Livestock No. – 6 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No. Livestock caused.

Upland Objectives:
- Improve vegetation to late seral stage through increased amounts of desirable native grasses including bluebunch wheatgrass and green needlegrass.
- Decrease impacts from yearlong livestock grazing.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.
- Decrease impacts from yearlong livestock grazing.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 1, 4, 5, 9 (upland rangeland health, utilization of upland grasses, and weeds, see Appendix A).

Proposed Action: The current permitted use would be modified to a season and numbers authorization; 36 cattle, 66 AUMs, season of use - 5/15-10/31, 33% active. Total preference would remain 66 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement.

Identification No. - 044
Lindquist, Allotment 02643
Public acres – 269
AUMs – 86
Public land – 100%
Livestock No. – 7 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use – None
Type of Use - Custodial

Meeting Upland Standard:
- No. (crested wheatgrass).

Upland Objectives:
- Utilize crested wheatgrass while most palatable early in the grazing season to allow for increase in native vegetation species composition and vigor.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity within the allotment through optimum utilization of crested wheatgrass.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 6, 8, & 13 (water developments, salt/mineral placement, and native plants, see Appendix A).

Proposed Action: The BLM and permittee propose emphasizing an optimal grazing season of use to allow for earlier utilization of crested wheatgrass augmented by fall grazing of fall greenup, if available. The current permitted use would continue; 7 cattle, 86 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 86 AUMs.

The following term and condition would be added to the grazing permit: Livestock grazing on the allotment would occur, when possible, 4/1-6/15 and 10/1-12/31.

The permittee would be required to move the salt/mineral tub a minimum of ¼ mile from any livestock water source on public land within the allotment.

Range Improvements: The allotment contains a developed spring with a non-functioning stocktank; the development is in need of repair. A cooperative range improvement agreement has been signed and implemented between the BLM and the permittee; the permittee is responsible for maintenance of the project. The BLM would provide specifications and oversight for the repair; the permittee would provide materials and labor to complete the project. No other range improvements are proposed.

Identification No. - 045
French, Allotment 12625
Public acres – 160
AUMs – 60
Public land – 100%
Livestock No. – 9 cattle
Season of Use – 6/1-12/31
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No. (crested wheatgrass).

Upland Objectives:
- Utilize crested wheatgrass while most palatable early in the grazing season to allow for increase in native vegetation species composition and vigor.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity within the allotment through optimum utilization of crested wheatgrass.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 6, 13 (water developments and native plants, see Appendix A).

Proposed Action: The BLM and permittee propose a change in the season of use to allow for earlier utilization of crested wheatgrass augmented by fall grazing of fall greenup, if available. The current permitted use would be modified; 5 cattle, 60 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 60 AUMs.

The following term and condition would be added to the grazing permit: Livestock grazing on the allotment would occur, when possible, 4/1-6/15 and 10/1-12/31 with prior BLM approval.

Range Improvements: The spring development located in the northwest portion of the allotment does not have a functioning overflow system. The BLM and permittee propose to bring the spring development up to BLM standards. A cooperative agreement has been signed and implemented for this spring development; the permittee is responsible for maintenance. The BLM proposes that the permittee install an overflow on the tank. The BLM would provide specifications and oversight for the repair; the permittee would provide materials and labor to complete the repair. No other range improvements are proposed.

Identification No. - 046
Piper, Allotment 02531
Public acres – 80
AUMs – 10
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No. Not livestock caused. Non-native grass species including Kentucky bluegrass, timothy and smooth brome are abundant on the allotment.

Upland Objectives:
- Maintain vegetative cover and vigor of existing plant species.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued spotted knapweed control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: This allotment contains a high percentage of non-native vegetation including Kentucky bluegrass, timothy and smooth brome. The BLM does not propose any

management changes which would alter the current vegetative composition. Efforts to reduce or replace non-native grass species would not be cost efficient and are not proposed by the BLM. The current permitted use would continue; 1 cattle, 10 AUMs, season of use - 3/1-2/28, 100% custodial.

Range Improvements: The allotment contains spotted knapweed. The BLM and permittee have signed and implemented a weed control cooperative agreement. No other range improvements are proposed.

Identification No. - 047
Dry Fork Creek, Allotment 02530
Public acres – 562
AUMs – 123
Public land – 100%
Livestock No. – 10 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.

Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 10 cattle, 123 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 123 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement.

Identification No. - 048
Rose Canyon, Allotment 02672
Public acres – 420
AUMs – 119
Public land – 100%
Livestock No. – 10 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No. (crested wheatgrass).

Upland Objectives:
- Utilize crested wheatgrass while most palatable early in the grazing season to allow for increase in native vegetation species composition and vigor.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity within the allotment through optimum utilization of crested wheatgrass.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 12 (native plants, see Appendix A).

Proposed Action: The permittee and BLM propose installation of two high tensile electric fences to optimize utilization of the crested wheatgrass dominated portion of the allotment and to confine livestock during winter months to an area not utilized during the summer. No supplemental feeding would occur on public land during the winter use period. One of the fences would also provide improved livestock management opportunities for the moist deciduous draws on the slopes of Atherton Creek canyon in the south end of the allotment. The current permitted use would continue; 10 cattle, 119 AUMs, season of use – 3/1-2/28, 100% custodial.

The following term and condition would be added to the grazing permit: Livestock grazing on the crested wheatgrass portion of the allotment would occur 4/1-7/1.

Range Improvements: The BLM and permittee are in the process of planning and completing the needed environmental assessment and cooperative range improvement agreements required to construct two separate 2-wire high tensile electric fences within the allotment. The proposed fences would intersect existing fences creating four total pastures.

The northern fence (approximately .73 miles) would begin at a point located in T. 14 N., R. 22 E., sec 19, NW¼SE¼ intersecting an existing barbed wire pasture fence. The fence would extend generally westerly through the NE¼SW¼ and into the NW¼SW¼. The fence would then turn north and west back through the NW corner of the NE¼SW¼ and be supplemented by private fence until it reaches an existing barbed wire fence on private land in the SW¼NE¼ of section 19.

The southern fence (approximately .43 miles) would begin at an existing allotment boundary fence in T. 14 N., R. 22 E., sec. 30, the NW corner of the NE¼SW¼, and extend directly east across the NE¼SW¼ and NW¼SE¼ where it would end at the upper rim of Atherton Creek canyon.

Two of the pastures would be dominated by native vegetation and two pastures would be dominated by crested wheatgrass. The electric fences would allow the permittee to concentrate livestock on the crested wheatgrass during the spring when the grass is most palatable. The fences would also provide deferment of the native vegetation within the allotment allowing for increased vigor and production. The fences may be removed at some point in the future if and when the crested wheatgrass stands have been converted to native vegetation.

Identification No. - 049
Meadors Bench, Allotment 02648
Public acres – 240
AUMs – 41
Public land – 100%
Livestock No. – 4 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.
- Maintain upland range health.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 4 cattle, 41 AUMs, season of use - 3/1-2/28, 100% custodial.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement. No other range improvements are proposed.

Identification No. - 050
Running Wolf Creek, Allotment 09775
Public acres – 263
AUMs – 66
Public land – 100%
Livestock No. – 14 cattle
Season of Use – 6/1-10/15
Grazing System – None
Type of Use - Active

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.
- Maintain upland health.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would be modified; 14 cattle, 66 AUMs, season of use - 6/1-10/15, 100% custodial.

Range Improvements: No range improvements are proposed.

Identification No. - 051
Horsethief Ridge, Allotment 02629
Public acres – 40
AUMs – 1
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No.

Upland Objectives:
- Continued improvement of vegetative condition through increased amounts of desirable native species. The allotment is making significant progress toward meeting the upland health standard

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued spotted knapweed control efforts.
- Improve vegetation as described in the upland objectives.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current owner has reduced livestock numbers which is allowing the allotment to make significant progress toward meeting the rangeland health standards. The permittee proposes a change in the type of livestock from cattle to horses. The current permitted use would be modified; 1 horse, 1 AUM, season of use - 3/1-2/28, 100% custodial. Total preference would remain 1 AUM. The custodial use terms and conditions discussed in 2.2 above would be incorporated into the permit.

Range Improvements: The allotment contains spotted knapweed. The BLM and permittee have signed and implemented a weed control cooperative agreement. No other range improvements are proposed.

Identification No. - 052
Horsthief Coulee, Allotment 02634
Public acres – 200
AUMs – 61
Public land – 100%
Livestock No. – 6 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No.

Upland Objectives:
- Improve vegetation to late seral stage through increased amounts of desirable native vegetation including bluebunch wheatgrass and green needlegrass, and the reduction of annual brome grasses.
- Reduce the amount of undesirable forb species.
- Reduce the percentage of bare ground through increased amounts of litter and perennial grasses.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued noxious weed control efforts.
- Improve vegetation as described in the upland objectives.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9, 12 (weeds and native plants, see Appendix A).

Proposed Action: This ranch was recently purchased by the present owners. The public land was historically overgrazed by the previous permittee. The current owner has reduced livestock numbers which is leading the allotment to making significant progress toward meeting the rangeland health standards. The BLM and permittee do not propose any management changes.

The current permitted use would continue; 6 cattle, 61 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 61 AUMs.

Range Improvements: The allotment contains houndstongue, Canada thistle, and field bindweed. The BLM and permittee have signed and implemented a weed control cooperative agreement. No other range improvements are proposed.

Identification No. - 053
Dickson Coulee, Allotment 02532
Public acres – 80

AUMs – 13
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.
- Maintain upland rangeland health.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 1 cattle, 13 AUMs, season of use - 3/1-2/28, 100% custodial.

Range Improvements: No range improvements are proposed.

Identification No. - 054
N Bar, Allotment 02821
Public acres – 2,715
AUMs – 586
Public land – 100%
Livestock No. – 49 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No. (crested wheatgrass, north pasture).

Upland Objectives:
- Utilize crested wheatgrass in the north pasture while most palatable early in the grazing season to allow for increase in native vegetation species composition and vigor.
- Improve vegetation to mid or late seral stage in north pasture areas not influenced by an existing prairie dog town.
- Maintain vegetation in late seral stage in the Durfee Hills pasture.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts and optimum utilization of crested wheatgrass in the north pasture.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 8, 9 (salt/mineral placement, weeds, see Appendix A).

Proposed Action: The north portion of this allotment contains a high percentage of crested wheatgrass. Leafy spurge is also scattered throughout the allotment. The crested wheatgrass is being utilized for early spring grazing. The leafy spurge is actively being controlled by the permittee using a combination of herbicide, biocontrol, and sheep grazing. Current livestock grazing management is not

negatively affecting rangeland health. To accurately reflect current livestock grazing management, the BLM proposes a season and numbers authorization.

The current permitted use would be modified;

- North Pasture: 23 cattle, 274 AUMs, season of use – 3/1-2/28, 100% custodial.
- Durfee Hills: 900 sheep, 367 AUMs, season of use – 5/15-7/15, 100% free use.

Total preference would remain 586 AUMs.

The following terms and conditions will be added to the other terms and conditions of the grazing permit: The free use grazing authorization is granted under 43CFR 4130.5(b)(3). The free use grazing is authorized for the control of leafy spurge. Sheep use may occur for up to one month on BLM lands within the listed season.

Supplemental salt/mineral would be moved a minimum of ¼ mile from any livestock water source on public land within the allotment.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement. No other range improvements are proposed.

Identification No. - 055
South Becket, Allotment 02829
Public acres – 200
AUMs – 18
Public land – 100%
Livestock No. – 2 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- N/A

Upland Objectives:
- N/A

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: This allotment consists of an 80 acre parcel and a 40 acre parcel of public land. Both parcels are dominated by steep slopes and heavy timber and are not suitable for livestock grazing.

The BLM recommends that this allotment be retired from grazing. Authorized livestock do not have sufficient access to the limited amount of forage resources present on public land. The allotment is dominated by steep topography and dense stands of timber. Any livestock use that may occur on BLM land is incidental and does/will not contribute to the allotment not meeting the standards for rangeland health. During the interim prior to an RMP update, the current permitted use would continue; 2 cattle, 18 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 18 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement. No other range improvements are proposed.

Identification No. - 056
West Fork Beaver Creek, Allotment 10062
Public acres – 40
AUMs – 8
Public land – 100%
Livestock No. – 2 cattle
Season of Use – 7/1-10/30
Grazing System – None
Type of Use - Active

Meeting Upland Standard:
- No.

Upland Objectives:
- Maintain vegetation in current seral stage. The upland standard is not being met due to a high percentage of non-native Timothy and Kentucky Bluegrass.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: Due to the limited amount of forage available on public land and the resources required to change the species composition to desired native species, no management changes are proposed. The current permitted use would be modified; 2 cattle, 8 AUMs, season of use – 7/1-10/30, 100% custodial. Total preference would remain 8 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 057
Half Moon, Allotment 02827
Public acres – 1,073
AUMs – 91
Public land – 100%
Livestock No. – 8 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No. Not livestock caused.

Upland Objectives:
- Maintain vegetation in current seral stage. The upland standard is not being met due to a high percentage of non-native Timothy.

Meeting Riparian Health Standard:
- Yes.

Riparian Objectives:
- Maintain streambank vegetative cover of sedges and rushes.

Meeting Water Quality Standard:
- No.

Water Quality Objectives:
- Maintain streambank vegetative cover of sedges and rushes. Decrease streambank alteration levels and number of livestock crossings.

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued spotted knapweed control.
- Objectives are limited by historic non-native grass species introduction.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 8 cattle, 91 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 91 AUMs.

Range Improvements: The allotment contains spotted knapweed. The BLM and permittee have signed and implemented a weed control cooperative agreement. No other range improvements are proposed.

Identification No. - 058
South Fork Flatwillow, Allotment 02819
Public acres – 280
AUMs – 9
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- N/A

Upland Objectives:
- N/A

Meeting Riparian Health Standard:
- Yes.

Riparian Objectives:
- Maintain or improve riparian area health on .27 mi. of the South Fork of Flatwillow Creek to PFC or above.
- Continue to support a diverse age class and composition of willow, red-osier dogwood, and serviceberry.

Meeting Water Quality Standard:
- Yes

Water Quality Objectives:
- Maintain the South Fork of Flatwillow Creek in PFC.

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: This allotment consists of 3 parcels of public land. The BLM recommends that the allotment be retired from grazing. Authorized livestock do not have sufficient access to the limited amount of forage resources present on public land. The allotment is dominated by steep topography and dense stands of timber. Any livestock use that may occur on BLM land is incidental and does/will not contribute to the allotment not meeting the standards for rangeland health. During the interim prior to an RMP update, the current permitted use would continue; 1 cattle, 9 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 9 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 059
Carl's Spring, Allotment 02657
Public acres – 554
AUMs – 187
Public land – 100%
Livestock No. – 16 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- No. (crested wheatgrass).

Upland Objectives:
- Utilize crested wheatgrass while most palatable early in the grazing season to allow for increase in native vegetation species composition and vigor.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:

- Improve biodiversity through continued leafy spurge control efforts and optimum utilization of crested wheatgrass.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9, 13 (weeds and native plants, see Appendix A).

Proposed Action: The permittee currently utilizes the crested wheatgrass for early spring grazing, though it is not fenced separately from native vegetation. Due to a lack of livestock water within the allotment, fencing the crested wheatgrass is not proposed. The current permitted use would continue; 16 cattle, 187 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 187 AUMs.

The following term and condition would be added to the grazing permit: Livestock grazing on the crested wheatgrass portion of the allotment would occur, when possible, 4/1-6/15.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement. No other range improvements are proposed.

Identification No. - 060
C & H, Allotment 20098
Public acres – 280
AUMs – 24
Public land – 100%
Livestock No. – 3 cattle
Season of Use – 4/1-11/30
Grazing System – None
Type of Use - Active

Meeting Upland Standard:

- Yes.

Upland Objectives:

- Maintain vegetation in current seral stage.
- Maintain upland rangeland health.

Meeting Riparian Health Standard:

- Yes.

Riparian Objectives:

- Maintain .46 miles of Rock Creek in PFC or above.
- Continue to support a diverse age class and composition of red-osier dogwood and Rocky Mtn. Maple.

Meeting Water Quality Standard:

- Yes.

Water Quality Objectives:

- Maintain the .46 miles of Rock Creek in PFC or above.

Meeting Biodiversity Standard:

- Yes.

Biodiversity Objectives:

- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 3 cattle, 24 AUMs, season of use – 4/1-11/30, 100% custodial. Total preference would remain 24 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 061
Buffalo, Allotment 09790
Public acres – 357
AUMs – 37
Public land – 100%
Livestock No. – 3 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:

- Yes.

Upland Objectives:

- Maintain vegetation in late seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- N/A

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 3 cattle, 37 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 37 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 062
Pagil Gulch, Allotment 09795
Public acres – 519
AUMs – 90
Public land – 100%
Livestock No. – 8 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 8 cattle, 90 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 90 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 063
Bar Diamond, Allotment 02825
Public acres – 420
AUMs – 92
Public land – 100%
Livestock No. – 8 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- N/A

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:

- Yes.

Biodiversity Objectives:

- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 8 cattle, 92 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 92 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 064
Muley Coulee, Allotment 02823
Public acres – 240
AUMs – 75
Public land – 100%
Livestock No. – 7 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:

- Yes.

Upland Objectives:

- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:

- N/A

Riparian Objectives:

- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:

- N/A

Water Quality Objectives:

- N/A

Meeting Biodiversity Standard:

- No.

Biodiversity Objectives:

- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 7 cattle, 75 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 75 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement. No other range improvements are proposed.

Identification No. - 065
Bald Butte, Allotment 12806
Public acres – 2,163
AUMs – 270
Public land – 24%
Livestock No. – 250 cattle
Season of Use – 6/1-10/15
Grazing System – None
Type of Use - Active

Meeting Upland Standard:

- No.

Upland Objectives:

- Maintain or improve vegetation in the current seral stage within the Bald Butte pasture.
- Improve vegetation to late seral stage on the L.U. pasture through increased amounts of desirable native grass species including bluebunch wheatgrass and green needlegrass.

Meeting Riparian Health Standard:

- No.

Riparian Objectives:

- Improve riparian area health on .55 miles of the South Fork of Flatwillow Creek to PFC or above.
- Continue to support a diverse age class and composition of willow species.

Meeting Water Quality Standard:
- Yes.

Water Quality Objectives:
- Decrease the amount of uncovered/ unstable streambanks.

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.
- Improve fisheries habitat by increasing streambank vegetation of sedges and willows thereby providing greater amounts of shade and cover.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 2, 6, 8, 9, 10 (riparian health, spring developments, salt/mineral placement, weeds and water quality, see Appendix A).

Proposed Action: The BLM and permittee propose splitting the season of use between the L.U. pasture and the Bald Butte pasture. The L.U. pasture is traditionally used early in the season, and livestock are then moved to the Bald Butte pasture for late summer/fall grazing. The current permitted use would be modified:

- L.U. pasture; 225 cattle, 180 AUMs, season of use – 6/1-7/15, 54% active.
- Bald Butte pasture; 51 cattle, 92 AUMs, season of use – 7/1-11/15, 40% active.

Total preference would be 272 AUMs.

The permittee proposes reconstruction of the west boundary fence to minimize cattle movement between the adjacent private property and this allotment.

The BLM and permittee also propose construction of a 3-wire barbed wire fence to exclude the South Fork of Flatwillow Creek riparian area from the uplands in the L.U. pasture. A water gap would be installed in the fence to provide a narrow corridor for livestock watering.

The permittee would move supplemental salt/mineral a minimum of ¼ mile from any livestock water source on public land within the allotment.

Range Improvements: A 3,475' 3-wire barbed wire crossfence would be constructed originating at a point of intersection with an existing allotment boundary fence located in T. 12 N., R. 21 E., sec. 10, NE¼NE¼ between the Flatwillow Creek road and the South Fork of Flatwillow Creek. The fence would extend southeasterly on the north side of the creek between the road and the creek terminating at a point of intersection with the allotment boundary fence located in sec. 11, NW¼NW¼. The BLM and permittee would enter into a range improvement cooperative agreement for this project; the BLM would provide approximately 3,475' of fence materials and construction specifications; the permittee or BLM would provide labor to construct the fence and the permittee would assume all maintenance responsibilities.

The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement.

Identification No. - 066
Rouns Place, Allotment 02520
Public acres – 40
AUMs – 4
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- N/A

Upland Objectives:
- N/A

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:

- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The BLM recommends that the allotment be retired from grazing. Authorized livestock do not have sufficient access to the limited amount of forage resources present on public land. The allotment is dominated by steep topography and dense stands of timber. Any livestock use that may occur on BLM land is incidental and does/will not contribute to the allotment not meeting the standards for rangeland health. During the interim prior to an RMP update, the current permitted use would continue; 1 cattle, 4 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 4 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 067
Shannon Creek, Allotment 09813
Public acres – 202
AUMs – 32
Public land – 100%
Livestock No. – 5 cattle
Season of Use – 5/15-1/1
Grazing System – None
Type of Use - Active

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- N/A

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Reduce the amount of leafy spurge on the allotment, and prevent spread of noxious weeds to adjacent public and private lands.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would be modified from active use to custodial use; 5 cattle, 32 AUMs, season of use – 5/15-1/1, 100% custodial. Total preference would remain 32 AUMs.

Range Improvements: The BLM would develop and implement a weed control cooperative agreement with the permittee. Weed control efforts would emphasize prevention of spread and containment and control of existing weed populations within the allotment.

Identification No. - 068
Sun Creek, Allotment 09815
Public acres – 161
AUMs – 32
Public land – 100%
Livestock No. – 2 cattle
Season of Use – 3/1-2/28
Grazing System – None

Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 2 cattle, 32 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 32 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 069
Elk Creek, Allotment 02830
Public acres – 720
AUMs – 206
Public land – 100%
Livestock No. – 17 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Active

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.
- Reduce the amount of leafy spurge through continued control efforts.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would modified; 17 cattle, 206 AUMs, season of use – 3/1-2/28, 100% custodial.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement.

Identification No. - 070
Shadow Mountain, Allotment 02605
Public acres – 320
AUMs – 61
Public land – 100%
Livestock No. – 9 cattle
Season of Use – 5/1-11/30
Grazing System – Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.

Meeting Riparian Health Standard:
- Yes.

Riparian Objectives:
- Maintain .47 miles of the unknown tributary of the North Fork of McDonald Creek in PFC or above.

Meeting Water Quality Standard:
- Yes.

Water Quality Objectives:
- Maintain covered/stable streambanks.

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued spotted knapweed control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 9 cattle, 61 AUMs, season of use - 5/1-11/30, 100% custodial.

Range Improvements: The allotment contains spotted knapweed. The BLM and permittee have signed and implemented a weed control cooperative agreement.

Identification No. - 071
Saure Place, Allotment 09817
Public acres – 80
AUMs – 11
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 4/1-12/28
Grazing System – Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 1 cattle, 11 AUMs, season of use - 4/1-12/28, 100% custodial. Total preference would remain 11 AUMs. .

Range Improvements: No range improvements are proposed.

Identification No. - 072
Wolf Butte, Allotment 09819
Public acres – 280
AUMs – 85
Public land – 100%
Livestock No. – 6 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use – Custodial

Meeting Upland Standard:
- No.

Upland Objectives:
- Limit upland utilization to promote desirable grass species.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Reduce the amount of leafy spurge on the allotment, and prevent spread of noxious weeds to adjacent public and private lands.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 1, 4, 5, and 9 (upland rangeland health, utilization of upland grasses, and weeds, see Appendix A).

Proposed Action: Adjacent private land is utilized by the permittee for wintering cattle; some feeding and associated winter use by cattle is occurring on the public land within this allotment. The BLM proposes to delineate the public land boundary within the allotment to eliminate the feeding and winter use; no supplemental feeding would be permitted on the public land. The permittee would attempt to locate winter feeding and water away from the public land. The current permitted use would continue; 6 cattle, 85 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 85 AUMs.

Range Improvements: The BLM would develop and implement a weed control cooperative agreement with the permittee. Weed control efforts would emphasize prevention of spread and containment and control of existing weed populations within the allotment.

Identification No. - 073
No Go, Allotment 02671
Public acres – 329
AUMs – 87
Public land – 100%
Livestock No. – 8 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in late seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 6, and 9 (spring developments and weeds, see Appendix A).

Proposed Action: The permittee has proposed selling the private land within this allotment to the BLM. Acquisition of the private land would provide public access to the current private land, 320 acres of public land, and 640 acres of adjacent state land. The current permitted use would continue; 8 cattle, 87 AUMs, season of use – 3/1-2/28, 100% custodial. Total preference would remain 87 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement.

The allotment contains a developed spring in need of repair. The stocktank requires installation of an overflow, the collection tank should be covered, and the collection area should be fenced. A cooperative range

improvement agreement has been signed and implemented between the BLM and the permittee; the permittee is responsible for maintenance of the project. The BLM would provide specifications and oversight for the repairs; the permittee would provide materials and labor to complete the project. No other range improvements are proposed.

Identification No. - 074
East Fork Beaver Creek, Allotment 20001
Public acres – 40
AUMs – 12
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Active

Meeting Upland Standard:
- No.

Upland Objectives:
- Maintain vegetation in late seral stage through the reduction of noxious weed populations. The upland standard is not being met due to an unusually high post-logging houndstongue and Canada thistle infestation.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Reduce the amount of houndstongue and Canada thistle on the allotment, and prevent the spread of noxious weeds to adjacent public and private lands.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9, and 12 (weeds and native plants, see Appendix A).

Proposed Action: Following a recent logging operation, Canada thistle and houndstongue have invaded the allotment at an unusually high level of infestation. The BLM and permittee propose an aggressive noxious weed control program. The current permitted use would be modified from active use to custodial use; 1 cattle, 12 AUMs, season of use – 3/1-2/28, 100% custodial. Preference would remain 12 AUMs.

Range Improvements: The BLM would develop and implement a weed control cooperative agreement with the permittee. Weed control efforts would emphasize prevention of spread and containment and control of existing weed populations within the allotment.

Identification No. - 075
Surprise Creek, Allotment 09829
Public acres – 80
AUMs – 17
Public land – 100%
Livestock No. – 3 cattle
Season of Use – 5/1-10/25
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes

Upland Objectives:
- Maintain vegetation in late seral stage.
- Maintain upland range health.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 3 cattle, 17 AUMs, season of use - 5/1-10/25, 100% custodial. Total preference would remain 17 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 076
North Oswick, Allotment 02675
Public acres – 600
AUMs – 130
Public land – 100%
Livestock No. – 11cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Custodial

Meeting Upland Standard:
- Yes

Upland Objectives:
- Maintain vegetation in late seral stage.
- Maintain upland range health.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 8 (salt/mineral placement, see Appendix A).

Proposed Action: The current permitted use would continue; 11 cattle, 130 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 130 AUMs.

The permittee would move supplemental salt/mineral a minimum of ¼ mile from any livestock water source on public land within the allotment.

Range Improvements: No range improvements are proposed.

Identification No. - 077
Sage Creek, Allotment 09745
Public acres – 40
AUMs – 12
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 3/1-2/28
Grazing System – None
Type of Use - Active

Meeting Upland Standard:
- No.

Upland Objectives:
- Improve vegetation to late seral stage.
- Decrease the composition of annual grasses and increase desirable perennial grasses.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity by reducing the percentage of annual grass species and increasing desirable perennial grasses.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 1, 4, 5, and 12 (upland rangeland health, utilization of upland grasses, and native plants, see Appendix A).

Proposed Action: This allotment was recently acquired by the current permittee in conjunction with a private land purchase. The BLM and permittee propose to change the grazing season to fall and winter use.

The current permitted use would be modified: 2 cattle, 12 AUMs, season of use - 10/1-2/28, 100% custodial. Total preference would remain 12 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 078
Barber, Allotment 09862
Public acres – 40
AUMs – 4
Public land – 100%
Livestock No. – 1 cattle
Season of Use – 4/1-11/15
Grazing System – Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in Potential Natural Community (PNC) seral stage.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- Yes.

Biodiversity Objectives:
- Maintain biodiversity within the allotment.

Conforms to Livestock Grazing Management Guidelines: Yes.

Proposed Action: The current permitted use would continue; 1 cattle, 4 AUMs, season of use – 4/1-11/15, 100% custodial. Total preference would remain 4 AUMs.

Range Improvements: No range improvements are proposed.

Identification No. - 079
Three Bar, Allotment 20035
Public acres – 440
AUMs – 24
Public land – 100%
Livestock No. – 4 cattle
Season of Use – 6/15-12/15
Grazing System – Custodial

Meeting Upland Standard:
- No. Not livestock caused.

Upland Objectives:
- Maintain upland vegetation in mid seral stage. Objectives are limited by historic non-native grass species introduction and timber.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Reduce the amount of leafy spurge on the allotment, and prevent spread of noxious weeds to adjacent public and private lands.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 4 cattle, 24 AUMs, season of use – 6/15-12/15, 100% custodial. Total preference would remain 24 AUMs.

The allotment is dominated by heavy conifer forest. Herbaceous vegetation is primarily non-native grass species including timothy, Kentucky bluegrass and smooth brome. Efforts to reduce or replace non-native grass species and invasive shrubs would not be cost efficient and are not proposed by the BLM.

Range Improvements: The allotment contains leafy spurge.The BLM would develop and implement a weed control cooperative agreement with the permittee. Weed control efforts would emphasize prevention of spread and containment and control of existing weed populations within the allotment.

The BLM proposes removal of a non-functioning wildlife water guzzler and associated exclosure fence. BLM would provide labor to remove the fence and guzzler.

Identification No. - 080
Heble, Allotment 02632
Public acres – 200
AUMs – 53
Public land – 100%
Livestock No. – 4 cattle
Season of Use – 3/1-2/28
Grazing System – Custodial

Meeting Upland Standard:
- No. (crested wheatgrass).

Upland Objectives:
- Utilize crested wheatgrass while most palatable early in the grazing season to allow for increase in native vegetation species composition and vigor.

Meeting Riparian Health Standard:
- N/A

Riparian Objectives:
- No riparian habitat on public land within this allotment.

Meeting Water Quality Standard:
- N/A

Water Quality Objectives:
- N/A

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts and optimum utilization of crested wheatgrass.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 and 12 (weeds and native plants, see Appendix A).

Proposed Action: The current permitted use would continue; 4 cattle, 53 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 53 AUMs.

The following term and condition would be added to the grazing permit: Livestock grazing on the allotment would occur, when possible, 4/1-6/15.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have

signed and implemented a weed control cooperative agreement.

Identification No. - 081
North McDonald, Allotment 12612
Public acres – 328
AUMs – 45
Public land – 100%
Livestock No. – 4 cattle
Season of Use – 3/1-2/28
Grazing System – Custodial

Meeting Upland Standard:
- Yes.

Upland Objectives:
- Maintain vegetation in current seral stage.
- Maintain upland range health.

Meeting Riparian Health Standard:
- Yes.

Riparian Objectives:
- Maintain .62 miles of the North Fork of McDonald Creek in PFC or above.

Meeting Water Quality Standard:
- No.

Water Quality Objectives:
- Maintain streambank vegetation and adequate buffer strip of desired riparian vegetation including sedges and willows.

Meeting Biodiversity Standard:
- No.

Biodiversity Objectives:
- Improve biodiversity through continued leafy spurge control efforts.

Conforms to Livestock Grazing Management Guidelines: No.
Guidelines not conformed to: No. 9 (weeds, see Appendix A).

Proposed Action: The current permitted use would continue; 4 cattle, 45 AUMs, season of use - 3/1-2/28, 100% custodial. Total preference would remain 45 AUMs.

Range Improvements: The allotment contains leafy spurge. The BLM and permittee have signed and implemented a weed control cooperative agreement.

2.2.2 Noxious Weeds

Alternative 2 would implement an aggressive, integrated weed control effort. The BLM would incorporate cooperative weed control agreements into the terms and conditions of ten-year grazing permits with noxious weed infestations. Cooperative weed control agreements could be initiated any time during the tenure of a permit if weeds are identified on an allotment. Permit terms and conditions would be modified to reflect the identification of noxious weeds and implementation of a cooperative weed control agreement.

Noxious weeds have been identified on uplands and in riparian areas within the planning area. Continued inventory and monitoring would provide weed infestation trend data. Through cooperative weed control agreements, the BLM would provide the proper type and amount of herbicide and the permittee would apply the herbicide. Application would be made by the properly licensed permittee or contracted to a licensed applicator at the permittee's cost.
Noxious weed inventory and monitoring within the planning area would be a continual, dynamic workload accomplished by permanent and seasonal BLM employees, private landowners and cooperating agency personnel. Inventory and monitoring data would be compiled by the LFO weed specialist and used to analyze the effectiveness of weed control efforts, project infestation trend patterns and provide guidance for future weed control planning and implementation.

The chemical component of the integrated weed control program would be closely monitored by the LFO weed specialist. All herbicide applications would utilize BLM approved herbicides (BLM annually revises an approved herbicide formulation list) by experienced,

licensed applicators; all applications would comply with label restrictions and guidelines. In riparian areas, extreme caution would be taken to avoid damage to desirable vegetation, especially woody species. In riparian areas and wetlands, herbicide free buffer zones for non-aquatic labeled herbicides would be established. Minimum buffer zone widths or distances to any body of water would be:

- 100' for aerial application
- 25' for vehicle application
- 10' for hand application

Site-specific exceptions could be granted if woody or desirable forb species are absent within a riparian zone. The BLM would utilize permanent and seasonal employees or contracts to implement site-specific herbicide prescriptions which would be identified outside of areas permitted for livestock grazing.

Biological control efforts would continue through release, dissemination and monitoring of newly available and established biocontrol agents. The BLM would continue a cooperative relationship with the Agricultural Research Service (ARS) by providing suitable experimental and research sites and assisting with associated biocontrol projects. Biological control would continue to be a valuable tool for control of Category 1 weeds (effective biocontrol of Russian knapweed and whitetop is being researched, but is not available at the time this document was written).

Noxious weed control measures would apply to all wildfire areas. Post-burn inventories / assessments would indicate if weed treatment is needed. During the livestock grazing rest period (discussed in 2.2.1 above), the BLM would continue weed treatment as necessary. After the livestock grazing rest period, the BLM would work with permitees in accordance with the cooperative weed control agreements discussed above.

2.2.3 Summary of Proposed Projects

Regardless of funding and range improvement projects, permittees must manage livestock according to standards and guidelines (Appendices A and B). Proper livestock grazing management would ensure that allotments not meeting standards would begin to make significant progress towards meeting standards by the start of the 2009 grazing season. Maintenance of all existing and proposed projects would be the responsibility of the permittees. A grazing rest period of two growing seasons may be required following vegetation treatments or wildfires. The actual rest period would depend on the recovery rates of each site as determined through monitoring. The majority of range improvement projects identified in the Snowies – Little Belts area involve maintenance of existing projects. Appendix I contains a list of all proposed projects. Projects would not be limited to those identified in the list; additional projects could be completed to improve management, meet standards, and conform to guidelines.

Cultural resource surveys would be conducted prior to implementation of range improvement projects, including vegetation treatments. Monitoring of noxious weeds would be conducted for two years following any surface disturbance.

Visual resource clearances would also be obtained prior to implementation of projects. Any surface disturbance that permanently removes existing vegetation would be reseeded and native vegetation reestablished.

Table 2.1 Summary of All Range Improvement Projects Proposed under Alternative 2

Proposed Project	***Total Affected Area***
Spring Refurbishments	1.75 ac.
3-Wire Barbed Wire Fence	1.0 mi.
Proposed Electric Fence	1.16 mi.

2.2.4 Alternatives Considered but Not Analyzed in Detail

A No Grazing Alternative was considered but not analyzed in this document. No grazing of public lands within the Snowies – Little Belts EA was adequately analyzed in the Missouri Breaks Grazing EIS, approved in August 1979, and is incorporated into this document by reference.

2.3 Management Common to All Alternatives

The following guidance would continue regardless of which alternative is selected. All alternatives would be required to comply with applicable BLM laws, rules, regulations, and policy.

2.3.1 Adaptive Management

Adaptive management would be used to alter the course of management if the proposed action is failing to achieve goals and objectives or if changing circumstances or direction indicate the need to make adjustments to management.

Adaptive management is a management approach that recognizes in advance that no amount of planning would be able to consider every possible combination of events, contingencies, or foresee the degree of impact from unplanned events or new management direction. The adaptive management approach recognizes the need for flexibility to cope with changes and provides mechanisms to allow corrective actions and adjustments to occur based on monitoring results. Achieving goals and objectives outlined in this plan would be the catalyst for change.

Under adaptive management, various actions could be considered to address problematic livestock grazing issues, including but not limited to:

- increasing length of rest periods between grazing periods
- changing season of use
- altering livestock turnout location
- changing grazing intensity
- changing grazing duration
- improving livestock distribution

Improved livestock distribution could be achieved by constructing water developments and fences, selective salt and/or mineral placement, and changes to livestock turnout location and season of use. In some cases, exclosure fencing could be used to protect riparian areas.

If stubble height or utilization levels indicate standards are not being met or progress is not being made toward meeting standards, more conservative limits may be implemented the following year (the 4 inch stubble height limit would be changed to a 6 inch limit, and the 6 inch stubble height limit on bluebunch wheatgrass would be changed to an 8 inch limit). If the initial stubble height or utilization limits are exceeded for two consecutive years, partial rest from grazing may be required (limited numbers or shortened grazing season) along with an adjustment to the stubble height limit (see Appendix G, Corrective Adjustments for Resource Protection). When upland or riparian stubble height limits are not met for three consecutive years, a health assessment would be completed. If standards for rangeland health are not met or fail to make significant progress because of livestock management practices, additional actions may be taken pursuant to BLM's grazing regulations.

Alternative options for allotments with complex management and sensitive resource issues have been preplanned and analyzed so that changes can be made immediately if progress toward meeting standards is not occurring or allotments meeting standards begin to show a measurable downward trend. These actions are listed under individual allotment proposals in this chapter. All changes would be reviewed by an interdisciplinary team in consultation with the affected permittee and any parties expressing concern about specific resource conditions before a decision is made to alter a course of action.

If monitoring indicates that pastures/allotments are not meeting standards and are not making significant progress toward Proper Functioning Condition, corrective actions would be imposed as described in Appendix G. The Standards for Rangeland Health indicate soils should be stable and provide for capture, storage and safe release of water appropriate to soil type, climate and land form. The amount and distribution of ground cover for identified ecological sites or soil-plant associations should be appropriate for soil stability. Evidence of accelerated erosion in the form of rills and/or gullies, erosional pedestals, flow patterns, physical soil crusts/surface scaling and compaction layers below the soil surface should be minimal. Ecological processes including hydrological cycle, nutrient cycle and energy flow should be maintained and support healthy biological populations. Plants should be vigorous, biomass production should be near potential and there should be a diversity of species characteristic and appropriate to the site.

2.3.2 Forest Management

Forest management within the analysis area will continue to be addressed on a case-by-case basis. Opportunities to sell commercial forest products are typically a result of an adjacent private timber sale and request from the purchaser to buy timber from the adjacent public land. Long-term management is limited or non-existent due to the opportunistic nature of the sales.

Regardless of the specific project area, all treatment objectives will consider the overall health of the forest. Treatments will be documented through concise project level silvicultural prescriptions that describe the current condition and the desired outcome. All treatments and their subsequent timing will be clearly outlined through at least a hundred year forest rotation (approximate growing cycle). Treatments will consider the management of Old-Growth as defined in the Forest Service, Northern Region document: "Old Growth Forest Types of the Northern Region." Water Quality Best Management Practices for Montana Forests will be strictly adhered to in all design features. No forest products will be sold at less than their appraised value. Cultural clearances will be conducted with appropriate mitigation incorporated into all treatment areas. Mechanical (heavy) equipment, both wheeled and tracked, will be limited to sustained slopes (longer than 200') of less than 40%. Sustained slopes greater than 40% will require yarding techniques that at least partially suspend the butt end of all material being pulled to landings.

No new permanent roads will be constructed unless determined to be in the public interest. However, up to 13.25 miles of temporary travel routes and skid trails may be developed to complete specific projects Rehabilitation of temporary travel ways will be to the following specifications:

- Cut and fill slopes broke down to match original contour;
- All berms removed;
- Travel way ripped/scarified;
- Debris and other vegetation placed in original travel way.

Heavy equipment use will be limited to periods of frozen, snow covered or dry condtions. Excessive soil disturbance (ruts exceeding 4" deep) will result in temporary shutdowns until conditions improve. Grass seeding with an approved mix and weed seed free certification will take place prior to the spring following the last mechanical treatment. Monitoring for weeds and control (if necessary) will take place for a period of up to 3 years following the disposal of all slash (logging debris). Slash may be disposed of by a variety of means including but not limited to: Natural decay process, chipping, grinding, lop and scatter, machine, or hand piles and burning. Prior to burning, a Prescribed Fire Burn Plan will be completed that further describes the operational procedures to safely conduct the burn.

Specific proposed Forest Health treatment areas include:

Luther – Allotment 20054
See Map O-1

Mechanized treatment on up to 303 acres of forest land including: Thinning of both commercial and non-commercial trees. Temporary access will be via existing roads across private and BLM lands. Non-mechanized (hand) cutting may be completed on up to 39 acres of public land. Treatments may require up to 1.0 mile of additional temporary trails and designated skid trails. Prescribed fire may be further utilized to achieve and maintain Forest Health on all 342 acres.

Beckett – Allotment #02518
Meadors Ranch – Allotment #02648
See Map O-2

Both these allotments have had mechanical and prescribed fire treatments within the past 3-5 years. A maintenance prescribed burn is proposed on up to 502 acres within the next 2-3 years.

Continued mechanical treatment on up to 435 acres of forest land including: Thinning of both commercial and non-commercial trees. Temporary access will be via existing roads across private along with public access along a county road and thru existing roads on BLM lands. Non-mechanized (hand) cutting may be completed on up to 67 acres of public land. Treatments may require up to 1.5 miles of additional temporary trails and designated skid trails.

Muley Coulee – Allotment #02823
See Map O-3

Mechanical treatment on up to 99 acres of forested land including: Thinning of both commercial and non-commercial trees. Temporary access will be via existing roads across private and BLM lands. Non-mechanized (hand) cutting may be completed on up to 27 acres of public land. Treatments may require up to .5 miles of additional temporary trails and designated skid trails. Prescribed fire may be further utilized to achieve and maintain Forest Health on all 126 acres.

Bald Butte – Allotment #12806
See Map O-4

That portion of the allotment that lies north of the South Fork Flatwillow road has been or is currently under contract for mechanized and non-mechanized treatments. Prescribed fire will be utilized to complete these treatments and maintain Forest Health. Additional, future maintenance treatments includes up to 228 acres of non-mechanized (hand) cutting treatments and up to 751 acres of mechanized treatments including thinning of both commercial and non-commercial trees. Temporary access will be via existing roads across private and BLM lands. Future treatments may require up to 1.0 miles of additional temporary trails and designated skid trails.

The portion of the allotment that lies south of the county road includes a permanent exclusive easement (not a public access) to the BLM. Conversely the BLM has granted a reciprocal right-of-way. The easement was acquired on 11/2/81and recorded on 2/17/82 (Vol. 200 Deeds pg. 664). The clearing limits and travel way will be re-marked for easy identification for both the BLM and the landowner. In addition the point where the road crosses the South Fork of Flatwillow Creek will be evaluated and fixed/improved if necessary. Possible fixes include: Leave the crossing as is; cleaning and re-installing the existing culverts or replacement culverts or pulling the culverts, stabilizing the banks with native material and replacement of culverts with an appropriately sized bridge.

Proposed projects on the south parcel include: mechanical treatment on up to 557 acres of forested land including: Thinning of both commercial and non-commercial trees. Access

will be via the existing easement #RE-060-56 across private land and/or through temporary access agreements. Non-mechanized (hand) cutting may be completed on up to 294 acres of public land. Treatments may require up to 1.5 miles of additional temporary trails and designated skid trails. Prescribed fire may be further utilized to achieve and maintain Forest Health on all 851acres.

Willow Creek – Allotment #02807
See Map O-5
Pronghorn Ranch – Allotment #02826
See Map O-6

Mechanical treatment on up to 660 acres (Willow Creek) and 1000 acres (Pronghorn) of forested land including: Thinning of both commercial and non-commercial trees. Temporary access will be via existing roads across private and BLM lands. Non-mechanized (hand) cutting may be completed on up to 149 acres (Willow Creek) and 143 acres (Pronghorn) of public land. Treatments may require up to 3.25 miles of additional temporary trails and designated skid trails. Prescribed fire may be further utilized to achieve and maintain Forest Health on all 1952 acres.

Three Bar – Allotment #20035
See Map O-7

Mechanical treatment on up to 372 acres of forested land including: Thinning of both commercial and non-commercial trees. Temporary access will be via existing roads across private and BLM lands. Non-mechanized (hand) cutting may be completed on up to 55 acres of public land. Treatments may require up to 1.5 miles of additional temporary trails and designated skid trails. Prescribed fire may be further utilized to achieve and maintain Forest Health on all 427 acres.

Bar Diamond – Allotment #02825
Half Moon – Allotment #02827
See Map O-8

Mechanical treatment on up to 1193 acres of forested land including: Thinning of both commercial and non-commercial trees. Non-mechanized (hand) cutting may be completed on up to 75 acres of public land. Treatments may require up to 3.0 miles of additional temporary trails and designated skid trails. Prescribed fire may be further utilized to achieve and maintain Forest Health on all 1268 acres.

The eastern most portion of the Half-Moon allotment that lies south of the county road includes an easement to the BLM. The easement was acquired on 2/15/77and recorded on 4/20/77 (Vol. 196 Deeds pg. 555). The point where the road crosses the Creek will be evaluated and fixed/improved if necessary. Possible fixes include: Leave the crossing as is; cleaning and re-installing the existing culverts or replacement culverts or pulling the culverts, stabilizing the banks with native material and replacement of culverts with an appropriately sized bridge.

Access to all parcels will be via the existing easement #RE-060-45 and/or through temporary access agreements.

2.3.3 Black-tailed Prairie Dogs

The JVP-RMP directs that the BLM will maintain or manage prairie dog towns on public lands based on the values or problems encountered. Prairie dog towns would not be actively managed within the Snowies – Little Belts area. Two prairie dog towns have been documented within the planning area; 3 acres in the Single allotment, No. 02618 and 30 acres in the N Bar allotment, No. 02821.

3.0 Affected Environment

This chapter describes the environmental resources related to the issues in Chapters 1 and 2. The resources include the physical, biological, and socio-economic conditions that could be affected by the implementation of one of the alternatives.

The information in this chapter is organized into the following headings:

3.1 Rangelands

Rangeland vegetation consists of grasslands, foothills grasslands, and mountain meadows. Mixed shrub communities are common in coulees and benches throughout all of these vegetation types. Common grasses and grasslike species include bluebunch wheatgrass, green needlegrass, needle and thread, western wheatgrass, prairie junegrass, blue grama, prairie sandreed, Sandberg bluegrass, and threadleaf sedge. Introduced grasses are found in some areas, either in pure stands or intermingled with native species. Crested wheatgrass is the most prevalent introduced perennial grass in the watershed, with numerous pure or nearly pure stands in several allotments. Other introduced perennial grasses include Kentucky bluegrass, timothy and smooth brome. Introduced annual grasses include cheatgrass and Japanese brome. Common shrubs include big sagebrush, silver sagebrush, chokecherry, hawthorn, service berry, skunkbush sumac, snowberry, and Wood's rose. There are no known occurrences of threatened, endangered, or sensitive plants in the watershed. Appendix H lists common plants in the planning area.

3.2 Upland Range Health

Allotments were assessed for upland range health during the summer of 2007. Rangeland health is defined as the degree to which the integrity of the soil, vegetation, water and air as well as the ecological process of the rangeland system are balanced and maintained (BLM Tech. Ref. 1734-6).

Upland health was determined using existing permanent study plots. These study plots were evaluated for ecological site index, upland range health indicators, and soil surface factors. Forty Nine of the 81 allotments are meeting the upland health standard. Thirty two allotments are not meeting the upland standard; current livestock management is a significant factor on 10 of these allotments. Appendix D displays a list of study results by allotment.

Drought has influenced the condition of vegetation in some areas. To separate the impacts of drought from livestock use, the evaluation team looked at fence line contrasts and similar sites under different management to discern the amount of impact caused by livestock management versus impacts of drought. Precipitation records from a nearby weather station were also reviewed.

3.2.1 Status of Upland Range Health

Seral stages and ecological site index scores were determined on upland sites using the NRCS ecological site index technical guides for each ecological site. This method assesses the seral stage of an ecological site and provides a scoring system. The higher the score, the higher the plant successional stage (seral stage). Changes in plant communities (known as plant succession) are characterized by different types of plant communities replacing other types of plant communities. A plant community reaches climax or Potential Natural Community (PNC) when it reaches a point that the community maintains itself and is relatively stable.

Different stages of succession are called seral stages. The amount and type of disturbance, the site, and the amount of rest following disturbance often dictate the seral stage of the plant community. In prairie grassland ecosystems, areas that have prolonged disturbance with little rest have a high abundance of annual forbs and weeds, some annual grasses, and shallow rooted perennial grasses of short stature. These conditions would indicate a low seral stage. With the NRCS ecological site index system, the higher the score, the higher the seral stage.

Areas without recent disturbance or light disturbance followed by periods of rest usually reflect late seral or potential natural community. This stage is characterized by tall, deep rooted grasses, fewer forbs and weeds, and in some cases a shrub overstory. Prairie ecosystems evolved with periodic disturbance in the form of fire, grazing, hail, and drought followed by periods of favorable growing conditions. In some cases a lack of some type of disturbance over a period of decades can cause succession to reverse toward lower or early seral conditions. Conversely, prolonged disturbance without adequate rest for plant recovery can also lead to early seral conditions. Proper livestock grazing management allows some disturbance followed by periods of rest during the growing season resulting in healthy, productive upland range sites.

On a site-specific scale, late seral or PNC conditions are associated with healthy rangelands and early (low) seral conditions are often associated with unhealthy rangelands. On a larger scale, however, a mix of seral stages provides habitat diversity. Healthy upland range sites generally maintain a high percentage of the plant community in late seral or PNC conditions, although a small percentage of the total acreage may be in early seral stages. Examples of acceptable early seral conditions would be livestock watering points, trails, prairie dog towns and areas surrounding gates and cattleguards. Seral stages are shown by allotment and transect site in appendix D.

Erosion condition class determinations (soil surface factors) were also completed to assess erosion conditions on rangelands. The method uses seven factors to assess the condition of the soil surface. Factors such as the amount of bare ground, amount of rilling, gullies or other forms of erosion are assessed and scored. These criteria are indicative of the amount of erosion that is occurring. The majority of the acreage in the planning area rated in the stable or slight erosion class category.

The BLM also uses rangeland health indicators to assess and evaluate problematic upland range sites. These indicators provide no scores, and factor the structure and function of the ecosystem rather than individual components. Rangeland health indicators are an important and effective way to communicate problems or successes to permittees and the public.

The biotic and physical indicators include:

Biotic

- plant community diversity
- plant community structure
- photosynthesis activity
- plant status
- presence of exotic plants (weeds)
- seed production
- nutrient cycling

Physical

- flow patterns
- soil movement by wind or water
- soil crusting and surface sealing
- soil compaction
- rills
- gullies
- amount of ground cover
- cover distribution

Rangeland health determinations were made based on upland health assessments comprised of the ecological site index, soil surface factors, and range health indicators. Grazing allotments were placed in one of three categories: meeting the upland health standard, not meeting the standard but livestock grazing is not a significant factor (or the allotment is making significant

progress toward meeting the standard), and not meeting the standard and livestock grazing is a significant factor. Significant progress is determined when an allotment with degraded conditions is showing a strong upward trend. Summaries of rangeland health determinations are displayed in Appendix M.

3.3 Riparian/Water Quality

Riparian areas are defined as the green zones associated with lakes, reservoirs, estuaries, potholes, springs, bogs, wet meadows, and streams (intermittent or perennial by Lewistown Field Office definitions). Riparian areas are characterized by water tables at or near the soil surface, and by vegetation requiring high water tables. A universally accepted definition satisfactory to all users has not yet been developed because the definition depends on the objectives and the field of interest. However, scientists generally agree that riparian areas are characterized by one or more of the following features: 1) *wetland hydrology*, the driving force creating all riparian areas, 2) *hydric soils*, an indicator of the absence of oxygen, and 3) *hydrophytic vegetation*, an indicator reflecting riparian site conditions.

Most of the riparian areas on BLM land within the planning area were assessed for health. Riparian health ratings consist of three categories; proper functioning condition (PFC), functional at risk (FAR), and nonfunctional (NF). Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to:

- dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality;

- filter sediment, capture bedload, and aid floodplain development;

- improve flood water retention and groundwater recharge;

- develop root masses that stabilize streambanks against cutting action;

- develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and

- support greater biodiversity (USDI, 1998).

Streams on BLM land in the Little Snowies area, including North Fork Flatwillow Creek, South Fork Flatwillow Creek, Surenough Creek, North Fork McDonald Creek, and numerous unknown tributaries to the fore mentioned streams, all exhibit similar vegetation and channel characteristics when functioning properly. Most are lower gradient, high sinuosity streams with a strong herbaceous component of Carex/Juncus spp. Various willow species such as sandbar and yellow willow occur within the riparian areas as well as other woody species like chokecherry, hawthorne, Rocky Mountain maple, serviceberry, red-osier dogwood, and water birch. Beaver are often times an important component of these systems, aiding in water storage and increased water tables. The unknown tributaries of these streams are often steeper in gradient with a narrower riparian zone. These tributaries are nearly all spring fed, and more often than not had a developed spring near the source.

The BLM ground around the edges of the Little Belts and Snowies is typically located on or near limestone outcrop. Streams tend to be steeper gradient and riffle dominated. Herbaceous vegetation is more limited and is primarily located in areas with finer substrate and alluvial materials. The coarser substrate and steeper gradient is a more conducive environment for several species of woodies, such as water birch, Rocky Mountain maple, quaking aspen, chokecherry, serviceberry, and hawthorne. The location of the stream reach on the limestone outcrop strongly influences channel conditions and vegetation. Many streams that flow in the interior of the mountains disappear underground as they cross the limestone outcrop. Some of the inventoried areas were classified as non-riparian because they were not inundated long enough to support obligate wetland plant species. These streams, including Antelope Creek, Bower

Canyon, and Meadow Creek, often had upland vegetation such as juniper and bluebunch wheatgrass in the channel. Never the less, they provide important wildlife habitat in that they still support facultive and facultive wetland woodies like red-osier dogwood, chokecherry, serviceberry, and hawthorne.

An approximately 38-acre lentic wetland also exists in the planning area southwest of Grass Range, Montana, and the assessment indicated that it is in proper functioning condition. It is providing significant waterfowl habitat and is one of the few natural, lentic wetlands within the field office.

The health of streams within the Little Belts - Snowies planning area was assessed with the Montana Riparian and Wetland Association (MRWA) Lotic Wetland Health Assessment for Stream and Small Rivers and the PFC checklist (USDI, 1998). The following streams were assessed on BLM land within the planning area: Unknown tributary to Big Otter Creek, Cache Creek, Dry Wolf Creek, North Fork Flatwillow Creek, South Fork Flatwillow Creek, North Fork McDonald Creek, Rock Creek, Surenough Creek and numerous unnamed tributaries to both forks of Flatwillow and McDonald Creeks.

A total of approximately 7.68 miles of lotic wetland and 38.4 acres of lentic wetland were assessed. A total of 5.12 miles were PFC, 0.81 were FAR (upward trend), 0.95 were FAR (static), and 0.80 miles were FAR (downward trend). Riparian areas that were FAR or NF because of causes that are within BLM's management capabilities such as weeds or livestock grazing require corrective actions, 1.75 miles within the planning area were not PFC because of livestock and/or weeds.

Although there are many streams within the planning area's boundary that are listed in Montana Department of Environmental Quality's (MDEQ) water quality database, the following discussion is geared towards the listed waterbodies that BLM land borders or is a significant landowner within the watershed. The streams include Dry Wolf Creek, North Fork Flatwillow Creek, and South Fork Flatwillow Creek. Table 3.1 lists impaired streams and probable causes/sources according to MDEQ (2006). South Fork Flatwillow Creek is listed in water quality category 1, which means that all uses have been assessed and are fully supported.

Table 3.1 Water Quality Impaired Streams and Probable Causes/Sources

Stream Segment	***Beneficial Use Support Status***	***Probable Causes***	***Probable Sources***
Dry Wolf Creek (headwaters to the mouth (Wolf Creek))	Aquatic Life (partially supporting) Primary Contact Recreation (not assessed) Warm Water Fishery (partially supporting)	Alteration in stream-side or littoral vegetative covers Nitrogen, Nitrate Phosphorus (Total) Salinity Total Kjehldahl Nitrogen (TKN)	Grazing in riparian or shoreline zones, Non-irrigated Crop Production
North Fork Flatwillow Creek	Agriculture (fully supporting) Aquatic Life (partially supporting) Cold Water Fishery (partially supporting) Drinking Water (fully supporting) Industrial (fully supporting) Primary Contact Recreation (fully supporting)	Sedimentation/Siltation	Agriculture, Loss of riparian habitat, Rangeland grazing

The BLM assessed the 0.5 mile reach of Dry Wolf Creek on BLM land within the reach identified as water quality impaired by MDEQ. Vegetative condition was good with healthy streamside buffers of riparian vegetation. This implies that grazing BMPs are being followed, and non-point source pollution is being at least partially mitigated by buffers that trap and filter sediment and decrease the amount of fecal coliform and nitrates entering the waterbody.

The BLM assessed 0.25 miles of North Fork Flatwillow Creek on BLM land within the water quality impaired reach. Streamside vegetation was good with more than 90% bank cover of sedges and rushes. Stream channel function and sediment processing appeared to be within a reasonable expectation of historic conditions. However, there were livestock crossings and watering holes that exhibited high levels of bank alteration. Willow recruitment was also at least partially being impacted by livestock.

Although there are no other listed water quality impaired streams where BLM is a significant landowner or water user, it is a safe inference that areas of degraded upland and riparian range condition on BLM land could be contributing non-point source pollution to waterbodies. Pollutants often times include increased levels of fecal coliform, nitrates, temperature, and sediment. The BLM is committed to the objectives of the Federal Clean Water Act to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Federal agencies are obliged to meet state water quality standards that protect beneficial uses of lakes, rivers, streams, and wetlands. The BLM mitigates non-point source pollution and complies with Clean Water Act by generating improving trends in condition. This is most often times accomplished by implementing grazing BMPs.

3.4 Noxious Weeds

Noxious weeds are a serious threat to the State of Montana and the Snowies – Little Belts planning area. Infestations of noxious weeds are present throughout the area in both upland and riparian areas.

Montana noxious weeds are categorized according to the following criteria:

- *Category 1* noxious weeds are weeds that are currently established and generally widespread in many counties of the state. Management criteria include awareness and education, containment, and suppression of existing infestations and prevention of new infestations. These weeds are capable of rapid spread and render land unfit or greatly limit beneficial uses.

    - Canada Thistle (*Cirsium arvense*)
    - Field Bindweed (*Convolvulus arvensis*)
    - Whitetop or Hoary Cress (*Cardaria draba*)
    - Leafy Spurge (*Euphorbia esula*)
    - Russian Knapweed (*Centaurea repens*)
    - Spotted Knapweed (*Centaurea maculosa*)
    - Diffuse Knapweed (*Centaurea diffusa)*
    - Dalmatian Toadflax (*Linaria dalmatica)*
    - St. Johnswort (*Hypericum perforatum*)
    - Sulfur (Erect) Cinquefoil (*Potentilla recta*)
    - Common tansy (*Tanacetum vulgare*)
    - Ox-eye Daisy (*Chrysanthemum leucanthemum* L
    - Houndstongue (*Cynoglossum officinale* L.)
    - Yellow toadflax (*Linaria vulgaris)*

- *Category 2* noxious weeds have recently been introduced to the state or are rapidly spreading from their current infestation sites. These weeds are capable of rapid spread, rendering lands unfit for beneficial uses. Management criteria includes awareness and education, monitoring and containment of known infestations, and eradication where possible.

    - Dyers Woad (*Isatis tinctoria*)
    - Purple Loosestrife or Lythrum (*Lythrum salicaria, L. virgatum*, and any hybrid crosses thereof).
    - Tansy Ragwort (*Senecio jacobea* L)
    - Meadow Hawkweed Complex (*Hieracium pratense,*
    - *H. floribundum, H. piloselloides*)
    - Orange Hawkweed (*Hieracium aurantiacum* L.)
    - Tall Buttercup (*Ranunculus acris* L)

- Tamarisk [Saltcedar] (*Tamarix* spp.)
- Perennial pepperweed (*Lepidium latifolium*)

- *Category 3* noxious weeds have not been detected in the state or may be found only in small, scattered, localized infestations. Management criteria include awareness and education, early detection and immediate action to eradicate infestations. These weeds are known pests in nearby states and are capable of rapid spread and render land unfit for beneficial uses.

  - Yellow Starthistle (*Centaurea solstitialis*)
  - Common Crupina (*Crupina vulgaris)*
  - Rush Skeletonweed (*Chondrilla juncea)*
  - Eurasian watermilfoil (*Myriophyllum spicatum*) Yellow flag iris (*Iris pseudacoru)*

Several weed species have been identified within the planning area; the largest areas of infestation are occupied by:

- Leafy spurge
- Canada thistle
- Spotted knapweed
- Russian knapweed
- Whitetop (Hoary cress)
- Houndstongue

The BLM has been actively involved in an integrated weed control program within the planning area for several years. Weed infestations have grown appreciably during the past two decades. Biological control of leafy spurge shows promise on large, dense stands which have proven very difficult to control using chemical alone. Established insect populations are monitored, collected, and dispersed by BLM personnel and permittees. Spotted knapweed and Canada thistle biological control agents have been released on a limited basis within the planning area. Effective biological control agents are currently not available for Russian knapweed, whitetop, or houndstongue.

Noxious weed species of concern which have recently been identified within or near the planning area are:

- Salt cedar
- Black henbane
- Sulfur cinquefoil

Salt cedar is an extremely invasive noxious weed presently expanding along the Musselshell River and the lower reaches of Flatwillow Creek. Dense stands of salt cedar can deplete groundwater aquifers and dewater perennial watercourses. A mature salt cedar plant can transpire up to 300 gallons of water during a hot summer day.

3.5 Coniferous Forest

The project area contains an overstory of Ponderosa Pine and Douglas-fir with isolated pockets of hardwood brush and shrubs and also includes remnant meadows that are declining in size due to encroachment. Douglas-fir is the climax forest for most of the project area depending on elevation and aspect. Ponderosa Pine, however, will continue to dominate the remaining drier aspects and those areas in the eastern most portions of the Little Snowy Mountains. Many of the current forest conditions, including overstocking, high fuel loads and ladder fuels along with a reduction in herbaceous wildlife browse are evident in the stands within the project area. There is little variation in the understory makeup, the hardwood component, and age classes within the overstory in individual units.

3.5.1 Douglas-fir Habitat Types

These forest types occur mostly on the northerly aspects along with the cooler micro-sites and are a mixture of Douglas-fir and Ponderosa Pine in the overstory. There are signs of decadent patches of hardwood shrubs and browse species including snowberry, Oregon grape, rose and maple. Most of these desirable shrubs and forbs are decadent and not showing signs of rejuvenation due, in part, to decreased sunlight and nutrients resulting from an overstocked stand. These stands currently average from 80 square feet of Basal Area to more than 200 square feet per acre. Remnant old growth and

large trees remain on site in excess of 150 years old and 26 inches in diameter.

3.5.2 Ponderosa Pine Habitat Types

This forest type occurs almost exclusively on drier aspects and is 100% Ponderosa Pine in the overstory. Occasional hardwoods occur in draw bottoms or around waterways. There are signs of decadent patches of hardwood shrubs and browse species including snowberry, Oregon grape, rose and maple. The forest floor is mostly a mat of pine needle litter that keeps native grasses from developing. Most of these desirable grasses, forbs and shrubs are decadent and not showing signs of rejuvenation due, in part, to decreased sunlight and nutrients resulting from an overstocked stand. These stands currently average from 80 square feet of Basal Area to more than 200 square feet per acre. Remnant old growth and large trees remain on site in excess of 150 years old and 26 inches in diameter. The ideal target stand is Ponderosa Pine with occasional groves of hardwoods.

3.5.3 Meadows

Meadows and their remains occur in both forest types and contain a variety of native grasses, forbs and shrubs. However, with the decline in natural disturbances (fire) these open areas are declining due to encroachment from surrounding conifer stands.

3.6 Livestock Grazing

A total of 81 grazing allotments permitted to 67 permittees are included in the plan. The permits primarily authorize cattle grazing; one permit authorizes limited sheep grazing for leafy spurge control and one permit authorizes one horse. Total permitted use in the planning area is 5,225 AUMs. Appendix K displays the allotment information.

3.7 Visual Resource Management (VRM)

Public land within the planning area has been assigned a Visual Resource Management (VRM) class based on a process that utilizes scenic quality and sensitivity to changes in the landscape based upon the distance zone from which a project or proposal would be seen by the casual observer. This is accomplished by incorporating the four primary elements found in the environment: form, line, color, and texture, into a proposed project. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

The four VRM classes are numbered I to IV (Visual Resource Management Program, Bureau of Land Management, 1980); the lower the number the more sensitive and scenic the area. Each class has a management objective that prescribes the level of acceptable change in the landscape. All lands within the Snowies – Little Belts planning area are rated Class III or Class IV. The Class III rating allows for moderate contrasts to the environment, but they should be subordinate to the existing landscape. For Class IV lands, the level of contrast to the landscape from authorized projects could be evident, but should be moderated by using the basic elements of form, line, texture, and color.

3.8 Wildlife Resources

The variety of upland and riparian vegetation within the watershed provides habitat for a diverse wildlife population. In a relatively small area the habitat may include deciduous tree stands with other associated riparian species, mixed coniferous forest, sagebrush steppe and agricultural land. The south and north forks of Flatwillow Creek are the only perennial streams known to provide fish habitat on BLM land within this planning area.

3.8.1 Mammals

The most significant mammals within the planning area are elk, mule deer, whitetail deer and antelope. Several water obligate species are also very common on or near Flatwillow Creek and McDonald Creek; beaver have become prevalent due in part to low fur values. Mountain lions and coyotes are well adapted and

populations are well established. Smaller predators such as foxes, skunks and raccoons are relatively abundant. The hoary bat, big brown bat, little brown bat, long-eared bat, long-legged bat, and Townsend's big-eared bat may occur in the area.

The black-tailed prairie dog was ruled to be warranted for listing but precluded by the USFWS in February of 2000. After a thorough review of the species they were removed from the candidate list in August 2004. Two prairie dog towns have been documented on 33 acres of public land within the planning area; 3 acres in the Single Allotment and 30 acres in the N Bar allotment. The prairie dog towns were GPS'd and maps filed in BLM Lewistown Field Office but will not be displayed in this document. Each of the prairie dog towns has some potential for expansion. Because of the limited size of the dog towns in the planning area, the opportunity for black-footed ferret occupation is minimal. These dog towns provide habitat for species such as burrowing owls, ferruginous hawks, and mountain plovers that are known to be associated with dog towns. Prairie dog towns provide an island of unique habitat that attracts a large number of predator species, particularly coyotes and badgers.

The Snowies – Little Belts area lies within elk and deer hunting districts 530, 411, 418, 420, 448 and 432 primarily. There are also small parcels of BLM land in this planning area which are included in elk and deer areas 447, 419, 417 and 410. The BLM's objective is to provide quality habitat on the BLM parcels to help maintain the identified objective number of elk identified for each hunting district. The BLM land is only a small portion of the overall elk habitat in any of the ten hunting districts. The primary elk use areas in this watershed are the Little Snowy Mountains/Bald Butte area in district 530, the upper North and South Flat Willow Creek drainages and Buffalo Creek drainage in District 411, and the area within and adjacent to the Judith River Wildlife Management Area in district 420. Elk have become well distributed in central Montana in recent years and could potentially be found on most of the BLM parcels in this area. The two primary Snowies hunting districts (411 and 530) allow general archery and rifle hunting for antlerless elk and special rifle and archery permits for either sex elk during the 2008 season. Three of the hunting districts associated with the Little Belts (418, 448, and 432) are calling for season long rifle general elk hunting in 2008, either sex in 418 and 420 and bulls only in 448. Hunt district 420 around the Judith Wildlife Management area is general archery hunting for any elk but rifle hunting is by permit only. Most of the general license elk hunting regulations for 2008 in the Snowies – Little Belts area are the same or more liberal than for 2007 seasons.

The mule deer population is currently at an appropriate level. A ten-year population increase has followed a very low 1996 mule deer count. Several factors have contributed to this recent population increase. The mule deer population drop in the mid 1990's was primarily caused by poor production of forbs and browse in consecutive years (1994 and 1995) as a result of low rainfall during the growing season. Cold temperatures and deep snow in 1996 and corresponding high predator numbers also contributed to the population drop. During the winter of 2003 and 2004, a severe weather period after Christmas caused a varied amount of mule deer mortality around central Montana. Habitat characteristics of broken topography, abundant cover, browse availability and adjacent cropland make the planning area a very productive mule deer area. The entire Snowies – Little Belts planning area is considered valuable mule deer habitat. All of the 400 hunting districts are going to allow either sex mule deer rifle hunting with a general license in 2008. District 530 will allow antlerless hunting on a general license and antlered hunter with a special license.

Whitetail deer are abundant within the Snowies – Little Belts area. Whitetails prefer the riparian areas along the drainages such as McDonald and Flatwillow Creeks but can also be found in most of the forested habitat associated with the Little Snowies in Eastern Fergus County. Whitetail is open to either sex hunting with a general license for rifle and archery throughout the planning area.

Antelope occupy habitat throughout the watershed. Hunting districts 513, 420 and 430 make up significant portions of the planning area and hunt areas 470, 471, 480, and 481 only include small parcels of BLM land. Antelope numbers were recovering very well following a period of high mortality during the winter of 2003 and 2004. The spring 2008 count showed a drop in numbers in local areas around central Montana. The antelope reproduction in 2007 was low followed by some significant fawn loss during the extremely wet and cold fawning season of 2008. The majority of the antelope habitat in this area is in districts 420 and 430. Montana Fish, Wildlife & Parks (MT FWP) proposes to decrease the number of doe/fawn tags from 350 to 100 in area 420 and from 475 to 275 in area 430. Either-sex tags would be decreased from 350 to 200 in area 420 and from 300 to 175 in area 430.

3.8.2 Birds

The bald eagle was removed from the endangered list in 2007 and the peregrine falcon was delisted in 1999. The mountain plover was proposed for listing as threatened in 1999 but withdrawn in 2003. The mountain plover, peregrine falcon, and bald eagle are currently considered special status species. The current BLM sensitive species list includes Bairds sparrow, burrowing owl, ferruginous hawk, Swainson's hawk, northern goshawk and sage grouse.

Bald eagle and peregrine falcon occurrence in the watershed is uncommon and most probable during seasonal migration. No active nests of either species have been identified within the planning area. Nest trees are abundant but fish availability for eagle foraging is very limited in this area. Potential cliff nest sites for peregrine falcons are available along the north side of the Little Belts but there are almost no waterfowl areas to provide foraging opportunities for peregrines.

The home range of the mountain plover includes the short grass prairie from northern Montana to southern New Mexico. Breeding pairs have been documented on prairie dog towns 50 miles northeast of the planning area. Mountain plovers have not been documented in the planning area but potential habitat does exist for the species. The mountain plover may be considered a disturbed-prairie species preferring arid flats with very short grass and a high proportion of bare ground. Prairie dog towns and a few acres of short grass dominated sites within the planning area provide potential habitat for the mountain plover.

Tree nesting raptors including Swainson's hawk, red-tailed hawk and great-horned owl are known to be present in the riparian zones and the numerous conifer and aspen stands in the planning area. Northern goshawks have been documented in this area during migration and nesting period. No nests were located during the inventory for this planning effort. Ground nesting raptors including ferruginous hawks, burrowing owls and northern harriers are also present. Burrowing owls and ferruginous hawks have been documented taking advantage of the prey opportunities provided by prairie dog towns.

Seven species of upland game birds are present in the planning area; Hungarian partridge, sharp-tailed grouse, sage grouse, blue grouse, ruffed grouse, Merriam's turkeys and ring-necked pheasant. Partridge are commonly associated with private cropland; sharp-tails are primarily located in the heads of brushy coulees and grasslands. Sharp-tail numbers have dropped during recent dry growing seasons, but 2007 was a successful nesting year. The mountain grouse species inhabit most of the forested parcels in the Little and Big Snowies and the Little Belts. The ruffed grouse prefer the aspen and other deciduous habitats while the blue grouse use the forest edge in the spring, summer and fall and the high elevation Douglas fir in the winter. Pheasants are primarily found near farmland but also occupy well vegetated riparian areas. Merriam's turkeys can be found in most of the ponderosa pine habitat in the Little Snowies and around the periphery of the Big Snowy Mountains. Turkey numbers seem to be increasing in most of Fergus County from where they were in the early 2000's. The spring of 2008 resulted in poor nest success for all upland

game birds because of the extremely wet and cool period in late may and early June.

The Snowies – Little Belts planning area includes very little known sage grouse habitat. The only place where sage grouse have been documented is in the very northeast portion of the area in the North Oswick allotment (2675). There are one active and one historic sage grouse strutting grounds (leks) located on private land near the North Oswick allotment. The vegetation on the allotment is in good condition but grouse habitat is marginal because much of the adjacent private land is cropland. An abundant horizontal juniper community limits sagebrush north of the lek.

Riparian willow nesting and brooding habitat for neo-tropical migrant species is minimal along Flatwillow Creek and Surenough Creek during the summer. There are no documented cottonwood stands on BLM land within the entire planning area. Migratory species that prefer coniferous forest or grasslands have abundant habitat throughout the Snowies - Little Belts area. Concentrations of long billed curlews are commonly reported in the open grasslands between Grass Range and the forested habitat of the Little Snowies. Numerous moist draws support brush communities of serviceberry, hawthorn, chokecherry, and russet buffaloberry, sometimes mixed with aspen, providing very important habitat for migratory birds and the grouse species.

3.8.3 Fish

Fish were recently sampled by MT FWP in Flatwillow Creek and many other prairie streams in the area. Species found in these streams included fathead minnows, sand shiner, green sunfish, northern redbelly dace, lake chub, white sucker and mountain sucker. Both forks of Flatwillow Creek in the Little Snowy Mountain area provide habitat for brook trout on some small BLM parcels.

3.8.4 Amphibians and Reptiles

The tiger salamander is the only salamander occurring in the planning area. The woodhouse toad, western chorus frog, Great Plains toad, plains spadefoot, and possibly the northern leopard frog all occur in the area. Populations of the northern leopard frog appear to be in a sharp decline in Western Montana (west of the continental divide), creating concern. Snakes found in the area include the western rattlesnake, racer, bull snake, and two species of garter snake. The short-horned lizard and painted turtle are also known to be present in the planning area.

BLM sensitive species amphibians and reptiles include:

- Great Plains toad
- plains spadefoot
- northern leopard frog
- greater short-horned lizard

3.9 Cultural Resources

The BLM broadly defines cultural resources as any traditional lifeway belief or cultural property. Cultural properties are defined as distinct evidence in areas of past human occupation, activity, and use. Traditional lifeway beliefs are defined as traditional value systems of religious beliefs, cultural practices, or social exchange that are not closely and tangibly defined or identified with definite locations (JVP, 1992).

Early peoples in the study area were mobile hunters and gatherers throughout and up until the historic period. The following brief overview explains changes through time as summarized by other archaeologists (Frison 1978; Ruebelmann 1983).

The Early Prehistoric period (roughly 10,000 – 5,700 B.C.) is characterized by a tool assemblage consisting of large, lanceolate and/or fluted spear points, and multipurpose tools made of stone or ivory. Subsistence strategies specialized in hunting megafauna but smaller game and plant foods were utilized as well. Typical site types include kill and butchering sites, open air camp sites, and limited activity sites.

The Middle Prehistoric period (roughly 5,000 B.C. – A.D. 400), is characterized by a shift in tool types from thrusting spears with lanceolate spear heads to spear throwers and darts with diagnostic spear points. Groundstone tools also begin to show up in the assemblages. Subsistence strategies shift from more specialized hunting of megafauna to a broader spectrum strategy which becomes focused on bison by the end of this period. Plant procurement and use also occurs. Evidence of storage in the form of storage pits begins to show up during this period as do large cooking pits. Site types typical of this period include kill and butcher sites, camp sites, and rock shelters. Stone circle sites are rare in this area.

The Late Prehistoric period (roughly A.D. 500 – 1800), is characterized by a technological shift from spear throwers and darts to bow and arrows. Tool assemblages consist of small side, corner, or tri-notched points. Some ceramics become evident in the record in limited number on the Northwest Plains at this time. Grooved mauls, bone fleshers, and shell beads are common. Subsistence strategies continue to focus on bison procurement. Large communal bison kill/jump sites, rock shelters, wind breaks, and caves are the site types typically found in this area. Stone circle sites are rarer compared to northern areas.

During the historic period, settlers by the thousands came into the area to live on homesteads. Germans and Scandinavians came from the Midwest, as did eastern European immigrants like Bohemians and Yugoslavs (JVP, 1992).

Cultural sites can be considered significant for several reasons; some because information about the past can be learned through methodical study of the sites, while other sites communicate a sense of a particular time period they represent in history. Finally, sites can be considered to be important because of the current use or values associated with the location.

An important consideration for management actions in this area is preserving the values of the cultural properties contained within. In order to preserve the integrity of a cultural property, it is sometimes necessary to preserve the location in which the cultural property is found. This is an important consideration when the management actions have the potential to affect the location of a cultural property, thus affecting the overall integrity of the cultural property.

The cultural resource site database maintained by the Montana State Historic Preservation Office was reviewed on February 22, 2008. A printout from the database was compared to the Snowies – Little Belts area which shows land status. A total of 44 cultural sites have been documented within the planning area on land administered by the BLM (Table 3.2). Of the 44 sites, only two (4.5%) are identified as being eligible for listing on the National Register of Historic Places. The 36 sites identified as being unevaluated receive the same protection as those sites that are eligible, until such time as their eligibility can be determined.

Table 3.2 Cultural Resources Identified within the Planning Area

	Eligible	***Ineligible***	***Unevaluated***	***TOTAL***
Historic	2	6	19	**27**
Prehistoric	0	0	14	**14**
Mixed	0	0	3	**3**
TOTAL	**2**	**6**	**36**	**44**

The prehistoric sites include lithic scatter sites, fire hearths/roasting pits, and rock cairns.

The historic sites relate primarily to homesteading and early agriculture.

A complete listing of known sites and inventories conducted within the Snowies – Little Belts area between 1977 and 2008 can be found in the project file.

3.10 Soils

Soils within the Snowies – Little Belts planning area developed primarily from sedimentary rock (shales, siltstone, and sandstone) of Lower and Upper Cretaceous age, and from lesser amounts of slope and recent alluvium. Soil patterns are complex and vary in physical and chemical properties, productivity, and erodibility.

Complete descriptions for the soil series and ecological sites within the planning area are available on the internet at:

http://soils.usda.gov/technical/classification/osd/index.html (soil series); and

http://efotg.nrcs.usda.gov/treemenuFS.aspx?Fips=30071&MenuName=menuMT.zip (ecological sites).

Included in the series descriptions are taxonomy, horizon descriptions, range of characteristics and other pertinent information.

3.11 Air Quality

Air quality in the Snowies – Little Belts planning area is generally considered good to excellent most of the year, meeting air quality standards set forth by the National Clean Air Act (U.S. Congress, 1967, amended 1972, 1977). All of the lands within the planning area are in a Class II airshed as designated by the 1977 Clean Air Act.

A planning and management process, "Prevention of Significant Deterioration" (PSD), was introduced as part of the 1977 Amendment to the Clean Air Act. These PSD requirements set limits for increases in ambient pollution levels and established a system for preconstruction review of new, major pollution sources. Three PSD classes have been established. Class I allows very small increases in pollution; Class II allows somewhat larger increases; and Class III allows the air quality to deteriorate considerably. In general, Class I is designed for pristine areas where almost any deterioration would be significant. Class II allows for moderate, well-controlled growth and Class III allows pollutant levels to increase considerably (JVP).

The high and low pressure weather systems that move through central MT strongly influence local climates and occasionally affect air quality within the planning area. These weather patterns may affect the air quality by moving suspended pollutants into the local airshed. During the summer and winter months, atmospheric conditions tend to be more stable, reducing particulate dispersal which may negatively affect air quality. Spring and fall typically have atmospheric conditions that favor smoke/particulate dispersal.

Major air pollutants include dust generated by naturally dry, windy conditions, smoke from wildland fires, and smoke and dust created by agricultural operations. Minor pollutants could include farm machinery exhaust, crop harvest dust, recreational vehicle and equipment exhaust, and road maintenance operations.

Topography within the watershed consists of flat to rolling uplands and mountains broken with steep canyons. Inversions may develop and trap suspended particulate matter for longer durations within these drainages.

3.12 Socio - Economics

The planning area is situated within Fergus and Judith Basin Counties in central Montana. Agriculture is the major industry. Recreation and associated services are also major contributors to the overall economy in the region.

Within the Snowies – Little Belts area, 67 permittees graze livestock on public land administered by the BLM. All of the permittees have cow-calf operations; some engage in supplemental farming and/or sheep operations. A total of 5,225 AUMs are permitted in 81 allotments.

Fergus and Judith Basin are sparsely settled adjoining counties located in central Montana. The counties are surrounded by the Little Belt, Big Snowy, Little Snowy, Judith, North and South Moccasin, and Highwood mountains. Planning area population centers include Lewistown, Grass Range, Moore, Hobson, Judith Gap, Stanford, and Geyser. Lewistown, which is the county seat and main population center of Fergus County, had a 2004 population of 6,116.

Local residents and other public land users exhibit attitudes and values typical of a rural farm/ranch oriented society in the western United States. Residents value the rural character of the area, wide-open spaces, naturalness and solitude. Positive aspects of the area include the independence and industriousness of the local people, lack of urban problems, relaxed pace and personal freedom. Residents have a strong sense of heritage.

Agricultural enterprises are predominately family operations with a long history in the area. Many of these ranches have grazing leases on state lands that are intermingled with private and public land. Changes currently affecting these ranches include increasing recreation in the area and implementation of standards and guidelines by the BLM.

4.0 Environmental Consequences

This chapter is the scientific and analytic basis for the comparison of the alternatives outlined in Chapter 2. The potential environmental impacts of each alternative in relation to the issues and concerns identified in Chapter 1 are described.

The information in this chapter is organized into the following headings:

4.1 Alternative 1, Continuation of Current Management
4.2 Alternative 2, Proposed Action

4.1 Impacts Under Alternative 1, Continuation of Current Management

This section discusses the impacts of renewing grazing permits with current terms and conditions and no management changes to environmental elements in the planning area.

4.1.1 Rangelands

If current grazing management continues, rangelands within the watershed would be affected in accordance with the current upland and riparian condition and trend discussed in sections 4.1.2 and 4.1.3 below.

4.1.2 Upland Range Health

Under current grazing management, upland sites that are meeting standards would slowly improve or remain stable. All available information indicates a static or slight upward trend on upland sites meeting standards.

Upland sites not meeting standards as a result of livestock grazing would continue to decline in productivity and upland health (Appendices D, M). Without periodic rest from grazing during the growing season, perennial grasses in these degraded areas would continue to have low vigor and density with limited reproduction of desirable grasses occurring. Annual grasses, shallow rooted perennial grasses and undesirable annual and perennial forbs would continue to be abundant.

Under current management, some allotments are not meeting the upland standard due to:

- Poor livestock distribution
- Lack of grazing rotation schedule
- Continual season-long grazing
- Large acreages of nonnative species, including crested wheatgrass

Plants on these allotments are not vigorous and lack sufficient root reserves and root mass to adequately cope with drought. These allotments are at high risk of continued deterioration and may eventually drop into an early seral stage, with lower plant diversity, loss of topsoil and productivity.

4.1.3 Riparian/Water Quality

Under current grazing management, riparian sites that are meeting Standards (Appendices E, M) would improve or remain stable. All available information indicates a static or upward trend on riparian sites meeting Standards.

Riparian sites not meeting standards as a result of livestock grazing (Appendices E, M) would remain static or continue in a downward trend since no changes in livestock grazing would occur. Without periodic rest from grazing during the growing season, perennial grasses, forbs and woody species in these degraded areas would continue to have low vigor and density with limited reproduction. Riparian plant community succession and streambank stabilization would be interrupted or impeded leading to degradation and potential loss of functioning riparian areas.

Water quantity and quality affected by flow diversion, impoundments, and stream channel modifications would not change. Where infiltration and evaporation rates are altered because of change in plant cover, the time of concentration and water storage within the planning area would remain below natural levels.

This alternative would not address the water quality impaired streams within the planning area or comply with the TMDL process, Clean Water Act, or MOU with MDEQ since no improvements would be made to upland or riparian vegetation. Those public lands in the planning area that are in less than Proper Functioning Condition would continue to possibly contribute pollutants such as sediment, nitrates, fecal coliform, and warmer water to streams.

4.1.4 Weeds

Under current management, noxious weed control within the planning area is somewhat inconsistent. Some permittees have signed cooperative weed control agreements and are actively involved in weed control on their allotments; others have no agreements and are not involved in weed control. The present level of weed control could lead to an increase in noxious weeds in the planning area, especially on grazing allotments lacking cooperative weed control agreements. Alternative 1 would not require noxious weed control cooperative agreements as a term and condition of the grazing permit.

4.1.5 Coniferous Forest

Maintaining current management of livestock grazing would not impact coniferous forests. This alternative would not initiate prescribed fire or mechanical treatments.

4.1.6 Livestock Grazing

Implementation of Alternative 1 would not impact livestock grazing because no changes to current operations would be proposed.

4.1.7 Visual Resource Management

No impacts (direct or cumulative) would occur to visual resources under this alternative.

4.1.8 Wildlife

Under current management, the riparian health, upland health and noxious weed infestation issues that have been identified would not improve. Upland sites not meeting standards as a result of livestock grazing would continue to decline in productivity and upland health. Browse, forb, and grass availability for mule deer, elk, and antelope would continue to decline. Forage and cover for birds and other small mammals would also deteriorate. Over time, the reduction in wildlife forage and increased levels of noxious weeds would cause a cumulative loss in the value of these isolated unhealthy areas as wildlife habitat.

Improvement of non-functioning riparian areas would not occur and the trends would remain static or continue to degrade. Unhealthy riparian areas would create a negative impact to most wildlife species. Vegetative diversity and structure that are associated with healthy riparian areas would not be available for cover, foraging and nesting areas for many species.

Noxious weeds would continue to spread because the present weed control program has not kept pace with infestation growth. The diversity of native plant species, particularly along the smaller riparian systems, would eventually decline to the point that the habitat would be of minimal value for cover and forage to wildlife.

4.1.9 Cultural Resources

Under current management, cultural sites would remain static to slightly deteriorating. Direct impacts to specific sites from BLM approved actions would be reduced or eliminated where possible. Visual impacts from BLM actions would be mitigated or eliminated where setting contributes to integrity. Less specific impacts such as the gradual loss or deterioration through erosion or weathering would continue. Loss and damage would also continue to occur as a result of unauthorized and unlawful collection and/or vandalism.

Significant cultural sites would be identified for stabilization or mitigation of deterioration as time and funding allow.

4.1.10 Soils

This alternative would generate the highest level of soil loss from wind and water erosion. In some cases accelerated erosion is occurring on allotments not meeting the upland standard. If no management changes are made, soils in these allotments would continue to lack sufficient ground cover and root density to resist erosion and would continue to erode at levels higher than expected for the site. Infiltration of precipitation into soils of these sites would be reduced by soil compaction, lack of plant and ground cover to intercept overland flow and lack of organic matter near the soil surface. Accelerated erosion would not occur on allotments that are meeting the upland standard as plant cover and type on these allotments would remain adequate to resist erosion.

4.1.11 Air Quality

Continuation of current management would not impact air quality.

4.1.12 Socio-Economics

Continuation of current management could create negative economic impacts to permittees with allotments not meeting health standards and in a downward trend. Continued degradation of public rangelands could eventually lead to lower carrying capacities and reduced livestock numbers. Allotments meeting health standards would not be impacted by this alternative.

4.2 Impacts Under Alternative 2, Proposed Action

4.2.1 Rangelands

The proposed action would improve conditions on allotments not meeting Standards through various types of rotational grazing systems or limited season of use. Water developments, additional fencing, salting, mineral placement, and changes in season of use would better distribute livestock and improve overall rangeland conditions. If monitoring indicates significant progress toward meeting standards is not occurring, management adjustments/ corrective actions would be initiated as described in the adaptive management section (section 2.4.1 and Appendix G). Rangeland Health ratings are listed by allotment in Appendix D.

4.2.2 Upland Range Health

Rangeland conditions on the allotments listed in Table 4.1 would continue to meet the upland health standard. Trends on these allotments are static or improving; no major management changes would be required. Implementation of Alternative 2 would not impact upland health on these allotments. No range improvements impacting upland range health are proposed.

Table 4.1 Allotments Meeting the Upland Health Standard

Allotment Name	*Allotment Number*	*Identification Number*
South Elk Creek	02802	001
Luther	20054	002
Buck Ridge	02619	006
Bear Creek Headwaters	02817	008
Vinger Place	02526	009
Twin Sisters	09695	011
Finkbeiner EOU	02699	013
Butler Coulee	02652	014
Athern Creek	02814	015
Blacktail Hills	09834	016

Table 4.1 Allotments Meeting the Upland Health Standard		
Allotment Name	***Allotment Number***	***Identification Number***
Beaver Ball Creek	02810	018
Browns Canyon	09711	019
Atherton Creek	02622	020
Blacktail Creek	02811	021
Forest Grove	02651	022
McCartney Creek	02812	023
Hansen Coulee	09793	025
Harlow	19730	027
Green Pole	20049	028
Beckett	02518	029
Cache Creek	09750	031
Willow Creek	02807	032
Flying O	09738	034
Willow Creek Headwaters	19737	035
Six Diamond	19824	036
Mary's Knoll	09751	039
Lehfeldt Ind.	02818	040
South Fork Ranch	02820	041
Potter Creek	02831	042
Dry Fork Creek	02530	047
Meadors Bench	02648	049
Running Wolf Creek	09775	050
Dickson Coulee	02532	053
South Beckett	02829	055
South Fork Flatwillow	02819	058
C & H	20098	060
Buffalo	09790	061
Pagil Gulch	09795	062
Bar Diamond	02825	063
Muley Coulee	02823	064
Rouns Place	02520	066
Shannon Creek	09813	067
Sun Creek	09815	068
Elk Creek	02830	069
Shadow Mountain	02605	070
Saure Place	09817	071
No Go	02671	073
Surprise Creek	09829	075
North Oswick	02675	076
Barber	09862	078
North McDonald	12612	081

Rangeland conditions on the allotments listed in Table 4.2 are not meeting the standard for upland health; livestock grazing is not a significant factor. Major grazing management changes would not be required on these allotments, however, management changes and/or range improvements have been proposed by the BLM and permittees on some allotments to improve grazing operation productivity as discussed following Table 4.2. Implementation of Alternative 2 would not impact upland health on the allotments with no proposed management changes or range improvements

Table 4.2 Allotments Not Meeting the Upland Health Standard; Livestock Grazing Is Not a Significant Factor.

Allotment Name	*Allotment Number*	*Identification Number*
Nebel Coulee	09665	003
Harlow Ranch	10038	004
South Forest Grove	12604	005
Single	02618	012
Dinger	02809	017
Pulp 40	02527	030
Pronghorn Ranch	02826	033
Springs Lease	02534	037
Many Springs	02816	038
Lindquist	02643	044
French	12625	045
Piper	02531	046
Rose Canyon	02672	048
Horsethief Ridge	02629	051
Horsethief Coulee	02634	052
N Bar	02821	054
West Fork Beaver Cr.	10062	056
Half Moon	02827	057
Carl's Spring	02657	059
Bald Butte	12806	065
East Fork Beaver Cr.	20001	074
Three Bar	20035	079

4.2.2.1 French, Allotment No. 12625

This allotment is not meeting the upland health standard due to the predominance of crested wheatgrass. The authorized season of use for this allotment is currently 6/1-12/31. These dates do not allow for early spring utilization of the crested wheatgrass. The BLM and permittee propose modifying the season of use to 3/1-2/28 with the following term and condition added to the grazing permit:

- Livestock grazing on the allotment would occur, when possible, 4/1-6/15 and 10/1-12/31 with prior BLM approval.

This change in the season of use would provide for optimum utilization of the crested wheatgrass and distribute grazing use to currently unavailable forage. Desirable, native vegetation would be positively impacted through decreased grazing pressure and increased

biomass, root reserves and plant vigor thereby improving upland health and benefiting soils.

4.2.2.2 Rose Canyon, Allotment No. 02672

The permittee proposes construction of two high tensile electric fences within the allotment to provide for optimal crested wheatgrass utilization and distribution of livestock. The proposed projects will be analyzed in a separate NEPA document prepared by the LFO. The authorized season of use for this allotment is currently 6/1-10/15. These dates do not allow for early spring utilization of the crested wheatgrass. The BLM and permittee propose continuing the 3/1-2/28 season of use with the following term and condition added to the grazing permit:

- Livestock grazing on the allotment would occur 5/1-7/1.

This season of use would provide for optimum utilization of the crested wheatgrass and distribute grazing use to currently unavailable forage. Desirable, native vegetation would be positively impacted through decreased grazing pressure and increased biomass, root reserves and plant vigor thereby improving upland health and benefiting soils.

4.2.2.3 N Bar, Allotment No. 02821

The N Bar allotment is located in two geographical areas, split by the Flatwillow Creek valley. The North Pasture and the Durfee Hills Pasture currently have the same authorized season of use – 3/1-2/28. The Durfee Hills pasture is poorly watered and is currently used on a very limited basis for livestock grazing. The BLM and permittee have entered into a cooperative weed control agreement to graze sheep on the Durfee Hills Pasture to control leafy spurge. The BLM proposes to authorize sheep grazing with a free use permit. The current permitted use would be modified:

- Durfee Hills; 900 sheep, 367 AUMs, season of use – 5/15-7/15, 100% free use.

The following terms and conditions would be added: The free use grazing authorization is granted under 43CFR 4130.5(b)(3). The free use grazing is authorized for the control of leafy spurge. Sheep use may occur for up to one month on public land within the listed season.
The limited use of sheep would positively impact upland vegetation by controlling leafy spurge with very minimal utilization of desirable native grass species. The band of sheep utilized for this project is accustomed to leafy spurge and prefer it over other species. Monitoring of this sheep grazing project is being conducted by MSU Extension and the Montana Sheep Institute.

4.2.2.4 Bald Butte, Allotment No. 12806

This allotment is split geographically by the South Fork of Flatwillow Creek. The season of use is currently 6/1-10/15 for both the LU Pasture and the Bald Butte Pasture. The BLM and permittee propose splitting the season of use between the LU pasture and the Bald Butte pasture. The LU pasture is traditionally used early in the season and livestock are then moved to the Bald Butte pasture for late summer/fall grazing. The AUM distribution between the two pastures does not allow for optimum utilization of available forage. The season of use would be modified to facilitate earlier removal of cattle from the LU pasture and more time on the Bald Butte pasture. The proposed changes are:

- L.U. pasture; 6/1-7/15.
- Bald Butte pasture; 7/1-11/15.

This modification would positively impact upland range health through optimum forage utilization, improved livestock distribution and increased soil stability.

Rangeland conditions on the allotments listed in Table 4.3 are not meeting the upland health standard. Trends on these allotments are static or down. Management changes and/or range improvements have been proposed by the BLM and/or the permittees. The proposed changes

Table 4.3 Allotments Not Meeting the Upland Health Standard		
Allotment Name	***Allotment Number***	***Identification Number***
Surenough Creek	12607	007
Moulton	02679	010
Grass Range	02626	024
Martin Creek	09859	026
Alkali Creek	02645	043
Wolf Butte	09819	072
Sage Creek	09745	077
Heble	02632	080

would lead to significant progress toward meeting the upland health standard. Impacts to rangelands for each allotment are discussed below.

4.2.2.5 Surenough Creek, Allotment No. 12607

This allotment is not meeting the upland health standard. The allotment contains two pastures, the Surenough Pasture and the Custodial pasture. Under Alternative 2, the BLM proposes changing the season of use in the Surenough Pasture from yearlong to 6/10-6/30. This change is primarily aimed at benefitting the riparian area along Surenough Creek, but the reduced time period authorized for grazing would also lead to an upward trend and significant progress toward meeting the upland health standard.

4.2.2.6 Moulton, Allotment No. 02679

This allotment is currently not meeting the upland health standard due to the predominance of crested wheatgrass. The BLM proposes modifying the current authorized grazing season from yearling to 4/1-6/15 and 10/1-2/28 with the following term and condition attached to the grazing permit:

- Custodial grazing is authorized during the listed season. Grazing use will not exceed the recognized carrying capacity of the public land. This allotment may be used in conjunction with your normal operation as long as standards for rangeland health are being met or significant progress is being made toward achieving those standards (43 CFR 4180).

This season of use would provide for optimum utilization of the crested wheatgrass and distribute grazing use to currently unavailable forage. Desirable, native vegetation would be positively impacted through decreased grazing pressure and increased biomass, root reserves and plant vigor thereby improving upland health and benefiting soils.

4.2.2.7 Grass Range, Allotment No. 02626

This common allotment is currently not meeting the upland health standard. Grazing management has been difficult for the two permittees due to the common nature of the allotment. The BLM proposes to split the allotment equally. The resultant allotments would be equal in AUMs, but the seasons of use would be adjusted to reflect the higher percentage of crested wheatgrass in the south pasture. The north pasture would utilize livestock water on adjacent private land thereby eliminating grazing impacts associated with water sources. The south pasture is dominated by crested wheatgrass. The BLM proposes changing the season of use to 4/20-6/30. This season of use would provide for optimum utilization of the crested wheatgrass and distribute grazing use to currently unavailable forage. Desirable, native vegetation would be positively impacted through decreased grazing

pressure and increased biomass, root reserves and plant vigor thereby improving upland health and benefiting soils.

4.2.2.8 Martin Creek, Allotment No. 15152

This allotment is not meeting the upland health standard primarily due to the predominance of dense clubmoss. Due to limited resources and management objectives, the BLM does not propose any changes in this allotment. Implementation of Alternative 2 would not impact upland range health.

4.2.2.9 Alkali Creek, Allotment No. 02645

This allotment is currently not meeting the upland health standard. The BLM proposes to modify the season of use from yearlong to 5/15-10/31. The reduced time period authorized for grazing would lead to an upward trend and significant progress toward meeting the upland health standard.

4.2.2.10 Wolf Butte, Allotment No. 09819

This allotment is currently not meeting the upland health standard. The permittee has historically utilized adjacent private land for wintering cattle; the BLM land is not fenced separately. Consequently, some feeding and associated winter use is occurring on public land within this allotment. Under Alternative 2, the BLM would delineate the public land boundary within the allotment. The permittee has agreed to eliminate all winter use from public land. Winter feeding and water would be located an adequate distance from public land within the allotment. This management action would benefit upland range health by eliminating the majority of livestock use on public land within the allotment, allowing the uplands to meet or make significant progress toward meeting the upland health standard.

4.2.2.11 Sage Creek, Allotment No. 09745

This allotment is currently not meeting the upland health standard. The public land is dominated by non-desirable annual grasses and forbs. The allotment was recently acquired by the current permittee. The BLM and permittee have agreed to change the season of use from yearlong to 10/1-2/28. This authorization would benefit upland range health by concentrating grazing pressure during the winter months. This time period is less critical to the growth, reproductive, and energy storage phases of the desirable vegetation's life cycle than the summer/fall time period.

4.2.2.12 Heble, Allotment No. 02632

This allotment is currently not meeting the upland health standard primarily due to the predominance of crested wheatgrass. The BLM proposes continuing the current authorized grazing season with the following term and condition attached to the grazing permit:

- Livestock grazing on the allotment would occur, when possible, 4/1-6/15.

This season of use would provide for optimum utilization of the crested wheatgrass and distribute grazing use to currently unavailable forage. Desirable, native vegetation would be positively impacted through decreased grazing pressure and increased biomass, root reserves and plant vigor thereby improving upland health and benefiting soils.

4.2.3 Riparian/Water Quality

Rangeland conditions on the allotments listed in Table 4.4 would continue to meet the riparian health standard. Trends on these allotments are static or improving; no major management changes would be required, and no range improvements are proposed. Implementation of Alternative 2 would not impact these allotments.

BLM is considering PFC to be an acceptable level of impacts and an evaluation technique for identifying areas of nonpoint source pollution. This is supported by the Montana Nonpoint Source Management Plan developed by Montana Department of Environmental Quality. MDEQ's goal for sustainable range land management is to support the long-term ecological health of grazing resources and meet

Table 4.4 Allotments Meeting the Riparian Health Standard		
Allotment Name	***Allotment Number***	***Identification Number***
Nebel Coulee	09665	003
South Forest Grove	12604	005
Buck Ridge	02619	006
Single	02618	012
Blacktail Hills	09834	016
Forest Grove	02651	022
Lehfeldt Ind.	02818	040
Half Moon	02827	057
South Fork Flatwillow	02819	058
C & H	20098	060
Shadow Mountain	02605	070
North McDonald	12612	081

water body beneficial uses. Their objective 6.1 is to "support PFC, as a first tier assessment approach for riparian grazing management and monitoring, on private, state, and federal riparian areas in Montana.

In general, improving livestock management under alternative two would benefit water resources. Increased vegetative cover in the uplands and riparian areas decreases the velocity of water and increases infiltration. It also would mitigate some sediment, nitrates, and other pollutants from reaching waterbodies.

Rangeland conditions on the allotments listed in Table 4.5 are currently not meeting the riparian health standard; livestock grazing is a significant factor. Trends on these allotments are static or degrading. Management changes have been proposed by the BLM and permittees to improve riparian area health and grazing operation productivity. Riparian areas would benefit from the proposed changes by significantly progressing toward PFC.

4.2.3.1 Surenough Creek, Allotment No. 12607

This allotment is not meeting the riparian health standard. Surenough Creek exhibited excessive levels of stream bank alteration, altered width-to-depth ratios, and utilization on preferred woody species.

With this alternative, the season of use would be limited from 6/10 to 6/30. Although streambanks would be vulnerable to trampling

Table 4.5 Allotments Not Meeting the Riparian Health Standard		
Allotment Name	***Allotment Number***	***Identification Number***
Surenough Creek	12607	007
Twin Sisters	09695	011
Cache Creek	09750	031
Bald Butte	12806	065

during this period, limiting the use to three weeks before the hot season, would provide excellent streambank recovery, promote woody species recruitment, and enhance stream channel function and water quality.

4.2.3.2 Twin Sisters, Allotment No. 09695

The riparian area associated with an undeveloped spring on this allotment is a heavily used water source for livestock, and subsequently exhibits high levels of pugging and hummocking.

Under this alternative, the spring on the BLM land would be exclosed. Livestock would still have access to the spring below on the private land. The exclosure would protect the spring source and associated riparian vegetation. This would protect water quality, allow for more natural evapotranspiration rates, and maintain spring flow rates.

4.2.3.3 Cache Creek, Allotment No. 09750

Cache Creek has all the building blocks for physical and ecological function; however, there are causes for concern including heavy utilization on preferred woody species and streambank alteration.

Under this alternative, the BLM land would be used in a deferred rotation grazing system between 5/1 and 10/31. A term and condition would be added to the permit limiting the period of use to 6 weeks or less each year on the BLM. This would decrease the amount time livestock are allowed to spend in the riparian area and increase the amount of recovery time. Use during the spring months would enhance woody species recruitment but make streambanks more vulnerable to trampling when wet. Use later in the summer/early fall would be more beneficial to streambanks but not offer as much protection to woody species.

4.2.3.4 Bald Butte, Allotment No. 12806

This allotment is not meeting the riparian standard. Where cattle have easier access to the South Fork of Flatwillow Creek on the lower end of the reach, streambank alteration and uncovered/unstable streambanks are a problem.

Under this alternative, the reach of South Fork of Flatwillow Creek on BLM land would be exclosed from livestock grazing with the exception of a water gap. This would benefit riparian community succession and water quality by providing a healthy vegetative buffer.

4.2.4 Noxious Weeds

Implementation of Alternative 2 would initiate a comprehensive, cooperative weed control effort to systematically treat noxious weeds in the planning area. Priorities would be established utilizing the weed categories outlined in Chapter 3. Infested acres of noxious weeds would decrease through an aggressive, concentrated effort involving all facets of an integrated weed management program.

Wildfire could lead to a temporary increase in post-burn noxious weed infestations. Canada thistle and houndstongue are particularly problematic noxious weeds following a fire event.

Variable conditions influencing noxious weeds include:

- burn severity
- survival of desired plants
- pre-burn noxious weed cover
- survival of weeds
- reproductive capability of noxious weed species
- pre-burn and post-burn soil moisture
- revegetation

Pastures would be rested for two growing seasons following a wildfire. During the grazing rest period, BLM would continue an integrated weed management program as necessary. After the livestock grazing rest period, the BLM would work with permittees in accordance with the cooperative weed control agreements.

Existing infestations of Category 1 noxious weeds would be contained and suppressed utilizing herbicides and biological control. Biological control of leafy spurge has produced very favorable results within the planning area; continual monitoring, dissemination, and new releases of biocontrol agents in addition to continued herbicide control would perpetuate a steady downward trend in leafy spurge acreage. Russian knapweed would be controlled solely with herbicides until an effective bioagent is approved and released. Assertive monitoring would assist in the prevention of new infestations of Category 1 weeds through early detection and control.

Existing infestations of Category 2 noxious weeds would be contained and suppressed or eradicated utilizing herbicides and biological control. Small, relatively new infestations would be eradicated with herbicides. Established, larger infestations of Category 2 weeds would be contained and suppressed with herbicides and applicable biocontrol agents. Assertive monitoring and public awareness/outreach would assist in the prevention of new infestations of Category 2 weeds through early detection and eradication.

Category 3 noxious weeds have not been detected in the planning area or may be found only in small, scattered, localized infestations. Assertive monitoring and public awareness/outreach would assist in the prevention of new infestations of Category 3 weeds through early detection and eradication.

4.2.5 Coniferous Forests

This alternative would not cause any negative impacts (direct or cumulative) to coniferous forests.

4.2.6 Livestock Grazing

Alternative 2 could minimally impact livestock grazing in the planning area. Allotments that are currently meeting upland and riparian health standards and have no grazing management changes proposed would not be impacted. Allotments not meeting health standards could be impacted to varying degrees by proposed grazing management changes discussed in 4.2.2 and 4.2.3 above. If proposed changes result in allotments making significant progress toward meeting rangeland health standards, impacts would positively benefit the permittees, the rangeland and all associated resources.

4.2.7 Visual Resource Management

Impacts to the visual resource under this alternative would include livestock developments such as stocktanks and fences. Improper placement of signs and boundary markers along travel routes could impact the visual resource as well. The LFO sign plan directs proper location and installation of all approved signs.

Livestock developments would be sited away from hilltops and ridges, and preferably where vegetation could screen the structures. Stocktanks located in highly visible areas would be painted using approved BLM earth tone colors.

4.2.8 Wildlife

Several different approaches to meeting standards have been described in this alternative, each designed to address the issues identified in the allotment while accommodating the needs of the individual ranching operation.

Grazing management proposals would include one or more of the following:

- The BLM and permittees would reconstruct or repair existing upland water sources and protect them from trampling or other forms of livestock degradation.
- The BLM and permittees would collaborate on new grazing systems to provide for the needs of vegetation, wildlife and the individual ranching operation.
- New fence construction
- Improve crested wheatgrass management.

Each of these methods would have a positive effect on wildlife in the planning area. Project implementation would be designed specifically to minimize impacts to the various species of birds, mammals, fish, amphibians and reptiles known to inhabit the planning area. Special emphasis would be placed on avoiding identified crucial winter habitats and parturition areas.

The proposed action would not negatively affect any threatened and endangered (T&E) species or their associated habitat. There would be no impacts to sage grouse under Alternative 2. Each allotment not meeting the upland health standard would have some deviation in the current grazing program designed to improve rangeland health. Alteration in the current grazing use dates or rotation has been outlined where feasible. Regardless of the type of grazing management being applied, allotments not meeting standards in the planning area would be monitored closely.

Black-tailed prairie dogs are present in 2 towns in the Snowies – Little Belts planning area; opportunities to improve their habitat are limited. Current BLM policy allowing expansion of prairie dog towns onto public land would be continued. Prairie dog towns provide habitat for mountain plovers and other special status bird and mammal species. Both of the prairie dog towns identified in this plan would have ample room for expansion on BLM land.

This alternative would implement an adaptive management approach to insure goals and objectives outlined in section 1.4 are achieved. If management actions outlined in Alternative 2 do not move resource conditions toward these goals and objectives, changes would be made to correct the course of action. Adaptive management changes would be implemented under the review of a biologist and interdisciplinary team. Prior to implementation of changes, a review of potential resource impacts would be conducted. Management adjustments that could adversely affect T&E species would not be implemented. Adaptive management actions that allow for adjustments such as shortening the length of the grazing period, fencing, water developments, exclosures, and alternating the rotation patterns would not negatively affect wildlife (directly or cumulatively) because they would be selected with the needs and requirement of wildlife in mind.

No major changes are proposed on the allotments listed in table 4.7; no impacts to wildlife (direct or cumulative) would occur on these allotments.

Table 4.7 Allotments With No Impact to Wildlife from Implementation of Alternative 2

Allotment Name	***Allotment Number***	***Identification Number***
South Elk Creek	02802	001
Bear Creek Headwaters	02817	008
Vinger Place	02526	009
Finkbeiner EOU	02699	013
Butler Coulee	02652	014
Blacktail Hills	09834	016
Browns Canyon	09711	019
Forest Grove	02651	022
McCartney Creek	02812	023
Hansen Coulee	09793	025
Martin Creek	09859	026
Green Pole	20049	028

Table 4.7 Allotments With No Impact to Wildlife from Implementation of Alternative 2		
Allotment Name	***Allotment Number***	***Identification Number***
Cache Creek	09750	031
Flying O	09738	034
Willow Creek Headwaters	19737	035
Six Diamond	19824	036
Lehfeldt Ind.	02818	040
South Fork Ranch	02820	041
Potter Creek	02831	042
Running Wolf Creek	09775	050
Dickson Coulee	02532	053
West Fork of Beaver Cr.	10062	056
South Fork Flatwillow	02819	058
C & H	20098	060
Buffalo	09790	061
Pagil Gulch	09795	062
Bar Diamond	02825	063
Rouns Place	02520	066
Sun Creek	09815	068
Saure Place	09817	071
Surprise Creek	09829	075
North Oswick	02675	076
Barber	09862	078

The allotments listed in Table 4.8 do not meet the upland health standard or the biodiversity standard; livestock grazing is not a significant factor (in one or both of the standards). The standards were not met in these allotments due to one or a combination of the following factors:

- weeds
- crested wheatgrass or other non-native grass species
- dense clubmoss

In these specific allotments, the factors are historical and beyond the control of the current livestock grazing permittees. Major grazing management changes would not be required on these allotments, however, management changes and/or range improvements have been proposed by the BLM and permittees on some allotments to improve grazing and vegetation management as discussed following Table 4.8. Implementation of Alternative 2 would not impact wildlife on the allotments with no proposed management changes or range improvements. The allotments listed in bold did not meet the biodiversity standard at least in part due to the presence of noxious weeds. Vegetative diversity would increase and wildlife habitat conditions would improve due to the implementation of cooperative weed control agreements on these 34 allotments.

Table 4.8 Allotments Impacting Wildlife; Livestock Grazing is Not a Significant Factor.		
Allotment Name	***Allotment Number***	***Identification Number***
Luther	**20054**	**002**
Nebel Coulee	**09665**	**003**
Harlow Ranch	10038	004
South Forest Grove	12604	005
Buck Ridge	**02619**	**006**
Twin Sisters	09695	011
Single	**02618**	**012**
Athern Creek	**02814**	**015**
Dinger	**02809**	**017**
Beaver Ball Creek	**02810**	**018**
Atherton Creek	**02622**	**020**
Blacktail Creek	**02811**	**021**
Harlow	**19730**	**027**
Beckett	**02518**	**029**
Pulp 40	**02527**	**030**
Willow Creek	**02807**	**032**
Pronghorn Ranch	**02826**	**033**
Springs Lease	**02534**	**037**
Many Springs	**02816**	**038**
Mary's Knoll	09751	039
Alkali Creek	**02645**	**043**
Lindquist	02643	044
French	12625	045
Piper	**02531**	**046**
Dry Fork Creek	**02530**	**047**
Rose Canyon	02672	048
Meadors Bench	**02648**	**049**
Horsethief Ridge	**02629**	**051**
Horsethief Coulee	02634	052
N Bar	**02821**	**054**
South Beckett	**02829**	**055**
Half Moon	**02827**	**057**
Carl's Spring	**02657**	**059**
Muley Coulee	**02823**	**064**
Bald Butte	**12806**	**065**
Shannon Creek	**09813**	**067**
Elk Creek	**02830**	**069**
Shadow Mountain	**02605**	**070**
No Go	**02671**	**073**
East Fork Beaver Cr.	**20001**	**074**
Three Bar	**20035**	**079**
North McDonald	**12612**	**081**

(Note: The allotments listed in bold did not meet the biodiversity standard at least in part due to the presence of noxious weeds.)

4.2.8.1 Buck Ridge, Allotment No. 02619

Two springs were crudely developed in this allotment many years ago. The springs are trampled out and the improvement materials have deteriorated. The BLM and permittee propose installation of new water collection basins and associated exclosure fences, pipelines, stock tanks and overflows. The spring exclosures would eventually result in riparian vegetation at the spring source and provide habitat for deer, turkeys, and other small game. The exclosure fences would be constructed using BLM wildlife friendly specifications.

4.2.8.2 Twin Sisters, Allotment No. 09695

An undeveloped spring is located on public land within this allotment. The spring is a heavily utilized livestock water source. The BLM proposes to construct an exclusionary fence around the spring to prevent further livestock degradation. The spring exclosure would eventually result in riparian vegetation at the spring source and provide habitat for upland game birds and other small animals. The exclosure fence would be constructed using BLM wildlife friendly specifications.

4.2.8.3 Beaver Ball Creek, Allotment No. 02810

A developed spring and associated small pit reservoir are located in the southwest portion of the BLM parcel. The permittee would be required to fence the spring source for protection from livestock. The spring exclosure would eventually result in riparian vegetation at the spring source and provide habitat for wildlife. The exclosure fence would be constructed using BLM wildlife friendly specifications.

4.2.8.4 Atherton Creek, Allotment No. 02622

The permittee proposes repair of an existing spring development. The BLM and permittee would update the existing range improvement cooperative agreement which will specify that the spring source be fenced from livestock with fence specifications that call for safe passage for wildlife. The spring exclosure would eventually result in riparian vegetation at the spring source and provide habitat for wildlife.

4.2.8.5 Beckett, Allotment No. 02518

A stockwater tank at a developed spring is in non-functioning condition. The permittee has agreed to replace the tank. Livestock drinking from the tank would discourage trampling around the area of the leaking tank and in the associated riparian habitat below the spring. Riparian habitat below the spring would eventually recover and provide quality habitat for wildlife.

4.2.8.6 Lindquist, Allotment No. 02643

The allotment contains a developed spring with a non-functioning stocktank. The permittee has agreed to repair and maintain the project. The BLM would provide specifications for the spring development and the exclosure fence around the spring source. The spring exclosure would eventually result in riparian vegetation at the spring source and provide habitat for wildlife.

4.2.8.7 French, Allotment No. 12625

The BLM and permittee propose a change in the season of use to allow for earlier utilization of crested wheatgrass augmented by fall grazing of late season growth if available. This change in the season of use would provide for optimum utilization of the crested wheatgrass and distribute grazing use to currently unavailable forage. Desirable, native vegetation would be positively impacted through decreased grazing pressure. Improved native vegetation would provide increased forage for deer and antelope and nesting cover for ground nesting birds.

The spring development located in the northwest portion of the allotment does not have a functioning overflow system. The BLM proposes that the permittee install an overflow on the tank. Livestock drinking from the tank would discourage trampling around the area of the overflowing tank and in the associated riparian habitat below the spring. Riparian

habitat below the spring would eventually recover and provide quality habitat for wildlife.

4.2.8.8 Rose Canyon, Allotment No. 02672

The permittee and BLM propose installation of two high tensile electric fences to optimize utilization of the crested wheatgrass dominated portion of the allotment. One of the fences would also provide improved livestock management opportunities for the moist deciduous draws on the slopes of Atherton Creek canyon.

Two of the pastures would be dominated by native vegetation and two pastures would be dominated by crested wheatgrass. The electric fences would allow the permittee to concentrate livestock on the crested wheatgrass during the spring when the grass is most palatable. The fences would also provide deferment of the native vegetation within the allotment allowing for increased vigor and productive. Deer and elk would graze on the early green up of the crested wheatgrass if it is managed to remove the rank growth from the previous year. The brush patches in Atherton canyon would become healthier and provide improved cover for deer, bears, and many other animals.

4.2.8.9 N Bar, Allotment No. 02821

The Durfee Hills pasture is poorly watered and is currently used on a very limited basis for livestock grazing. The BLM and permittee have entered into a cooperative weed control agreement to graze sheep on the Durfee Hills Pasture to control leafy spurge. The BLM proposes to authorize sheep grazing with a free use permit. The free use grazing is authorized for the control of leafy spurge. Sheep use may occur for up to one month on public land. This portion of the N Bar allotment is an important elk use area. The limited use period and the pattern of sheep to be banded up in a relative small area would minimize disturbance to the elk. The control efforts on leafy spurge would improve the vegetative diversity and provide better elk forage.

4.2.8.10 Bald Butte, Allotment No. 12806

The season of use is currently 6/1-10/15 for both the LU Pasture and the Bald Butte Pasture. The BLM and permittee propose splitting the season of use between pastures creating some grazing deferment for each pasture. The permittee proposes reconstruction of the west boundary fence to minimize cattle movement between the adjacent private property and this allotment.
The BLM and permittee also propose construction of a 3-wire barbed wire fence to exclude the South Fork of Flatwillow Creek riparian area from the uplands in the L.U. pasture. These proposals would provide grazing deferment for each of the the pastures, prevent excess cattle from coming onto the allotment and provide protection from grazing and trampling along the stream bank of the South Fork of Flatwillow Creek for over 2/3 of a mile. These proposed changes and improvements would increase the vegetative conditions and associated wildlife habitats on both the uplands and the riparian area. The riparian fence would improve fisheries habitat by increasing stream bank vegetation of sedges and willows thereby providing greater amounts of shade and cover.

Table 4.9 Allotments With Impacts to Wildlife from Implementation of Alternative 2

Allotment Name	*Allotment Number*	*Identification Number*
Surenough Creek	12607	007
Moulton	02679	010
Grass Range	02626	024
Wolf Butte	09819	072
Sage Creek	09745	077
Heble	02632	080

Grazing management changes and/or range improvements have been proposed by the BLM and permittees on the allotments listed in Table 4.9. Implementation of Alternative 2 would create impacts to wildlife resources associated with these allotments. Impacts are analyzed for each allotment.

4.2.8.11 Surenough Creek, Allotment No. 12607

This allotment is not meeting the riparian, upland or biodiversity standard. Surenough Creek exhibited excessive levels of stream bank alteration, altered width-to-depth ratios, and utilization on preferred woody species. The allotment contains two pastures, the Surenough Pasture and the Custodial pasture. Under Alternative 2, the BLM proposes changing the season of use in the Surenough Pasture from yearlong to 6/10-6/30. The proposed shortened season of use would provide excellent stream bank recovery, promote woody species recruitment and lead to an upward health trend.

The proposed changes in grazing use would improve the vegetative conditions and associated wildlife habitats on both the uplands and the riparian area. Improved growth and reproduction of the shrubs and other woody vegetation would provide more hiding and thermal cover for big game and many other species of small animals and migratory birds.

4.2.8.12 Moulton, Allotment No. 02679

This allotment is currently not meeting the upland health or biodiversity standard due to the predominance of crested wheatgrass and the degradation of the native vegetation. The BLM proposes modifying the current authorized grazing season from yearling to 4/1-6/15 and 10/1-2/28.

This season of use would provide for optimum utilization of the crested wheatgrass and better distribution of livestock grazing use. Desirable, native vegetation would be positively impacted through decreased grazing pressure. Deer and antelope would graze the early crested wheatgrass green up if managed to remove coarse growth from the previous year. Improved native vegetation would provide increased forage for deer and antelope and nesting cover for ground nesting birds.

4.2.8.13 Grass Range, Allotment No. 02626

This common allotment is currently not meeting the upland health standard. The BLM and permittees propose re-alignment of an existing pasture fence to split the allotment equally. The re-alignment would be a permanent 3-wire barbed wire fence that would meet the BLM wildlife specifications. The resultant allotments would be equal in AUMs, but the seasons of use would be adjusted to reflect the higher percentage of crested wheatgrass in the south pasture. The BLM proposes changing the season of use in the south pasture to 4/20-6/30. This season of use would provide for optimum utilization of the crested wheatgrass and distribute grazing use to currently unavailable forage. Desirable, native vegetation would be positively impacted through decreased grazing pressure. Deer and antelope would graze early crested wheatgrass green up if managed to remove coarse growth from the previous year. Improved native vegetation would provide increased forage for deer and antelope and nesting cover for ground nesting birds.

4.2.8.14 Wolf Butte, Allotment No. 09819

This allotment is currently not meeting the upland health or the biodiversity standard. The permittee has historically utilized adjacent unfenced private land for winter feeding cattle. The permittee has agreed to eliminate all winter use from public land. Winter feeding and water would be located an adequate distance from public land within the allotment. This management action would benefit upland range health by eliminating the majority of livestock use on public land. The reduced livestock use would improve the vegetative condition and biodiversity and consequently provide more big game forage and nesting cover for ground nesting birds.

4.2.8.15 Sage Creek, Allotment No. 09745

This allotment is currently not meeting the upland health or biodiversity standard. The public land is dominated by non-desirable annual grasses and forbs. The allotment was recently acquired by the current permittee. The BLM and permittee have agreed to change the season of use from yearlong to 10/1-2/28. This authorization would benefit upland range health by concentrating grazing pressure during the winter months. The proposed change in season of use would promote desirable perennial vegetation. The improved vegetation would provide nesting cover for ground nesting birds and forage for the mule deer that inhabit the area.

4.2.8.16 Heble, Allotment No. 02632

This allotment is currently not meeting the upland health or the biodiversity standard primarily due to the predominance of crested wheatgrass and degradation of the native vegetation. The BLM proposes continuing the current authorized grazing season with the stipulation that livestock grazing on the allotment would occur, when possible, from 4/1 to 6/15. This season of use would provide for utilization of crested wheatgrass while most palatable early in the grazing season to allow for increase in native species composition and vigor. Deer and antelope would graze early crested wheatgrass green up if managed to remove coarse growth from the previous year. Improved native vegetation would provide increased forage for deer and antelope and nesting cover for ground nesting birds.

4.2.9 Cultural Resources

The impacts from this alternative would be similar to Alternative 1. Beneficial impacts could result from management actions that reduce erosion and restore native vegetation. Weed control by spraying, sheep grazing, and releasing biological agents (beetles) helps restore historical vegetation and also reduces the risk of widespread erosion that could affect site stability and integrity.

Proposed surface disturbing activities, specifically five proposed spring refurbishments on four allotments, could create negative impacts. File searches and Class III (intensive) cultural resource inventories would be conducted prior to all surface disturbance actions proposed in this watershed plan. Possible benefits include identification of additional resources during inventories, as well as the protection of any historic properties associated with the springs that currently are being impacted by cattle grazing activities.

4.2.10 Soils

Grazing management changes which result in allotments making significant progress toward meeting rangeland health standards would create a positive impact to soils in the planning area. Rangelands meeting or exceeding health standards exhibit a higher percentage of increaser forage species, fewer annual grasses and forbs, increased plant vigor and root mass, a decrease in the percentage of bare ground, and an increase in available water holding capacity and infiltration. These characteristics greatly benefit rangeland soils.

Table 4.10 Summary of Proposed Range Improvement Projects in Alternative 2

Proposed Project	*Total Affected Area*
Spring Repair/ Maintenance	2.41 ac.
3-Wire Barbed Wire Fence (2)	1.0 mi.
Temporary Electric Fence	1.16 mi.

The cumulative impact of these proposed projects would have an effect on the soil resource, though it would be minimal. The vast area encompassed by the EA and mitigation measures associated with each of the projects would minimize or eliminate negative impacts. The proposed projects are spread among the 81 allotments and 25,674 total public land acres within the planning area.

Soil could be affected by implementation of this alternative in two ways, surface disturbances and compaction. Spillage of equipment lubricants, fluids, and fuels could also adversely impact soils associated with the range improvement projects.

Construction equipment and vehicular traffic associated with the proposed projects would cause soil compaction; severity would be directly related to soil type, frequency, and weight (lbs./sq. inch) of equipment. Compaction alters soil structure - decreasing porosity, infiltration rate, air space, and available water holding capacity. A combination of these factors would decrease the vegetative capacity and increase the potential for water and wind erosion of affected areas. Mitigation would include limitation of unnecessary traffic associated with the projects and limitation of traffic during wet periods. Excessively wet soils would be defined as soil moisture high enough to:

- foul blades, augers or equipment
- create 3" deep ruts
- conglomerate mud on tires and tracks

Construction and farm equipment and vehicular traffic associated with the proposed projects would also create surface disturbances which could lead to accelerated wind and/or water erosion. Mitigation would include timely rehabilitation of all project-induced surface disturbances as directed by the authorized officer. All seed mixes would be recommended and approved by the authorized officer. Seed would be State of Montana Certified or Registered seed (or certified/registered by the state of origin); certification tags would be made available to the authorized officer for inspection before the seed is planted. Seed would be planted using a disc drill equipped with depth bands (or a suitable depth regulator to ensure proper depth of planting) and packer wheels. Seed would be drilled between one half inch (1/2") and three quarters inches (3/4") deep. Where drilling is not possible, seed would be broadcast and the area would be harrowed or raked to cover the seed. Care would be exercised to prevent burying the seed deeper than one inch (1"). If seed must be broadcast, the drill seeding rate provided by the authorized officer would be doubled. The seeding would be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth would not be made before completion of the first growing season following seeding. Seeding would be completed in the late fall/early winter or early spring between the dates of 10/15 and 05/15. Seedings would not be made when the soil is frozen or snow covered. If moisture conditions are favorable in late summer, seeding may be completed between 08/15 and 09/15, allowing a minimum of 45 days for germination and seedling development before the seedlings go dormant. Late summer plantings should be attempted only when soil moisture is adequate at or very near the surface and to a substantial depth in the profile.

Silt fence would be properly installed to control offsite movement of any required soil stockpiles in areas with slopes greater than 15%, and adjacent to waterways and stream channels. Topsoil would not be used as padding in trenches or for any other use as a construction material. Standard erosion control practices would be employed to minimize erosion during construction operations. If a high groundwater table is encountered requiring dewatering, water would be pumped and discharged in a manner that would minimize sedimentation and prevent off-site erosion and bottom scour in adjacent waterways. Discharge to the surface would be allowable if vegetation is adequate to effectively function as a filter medium. If vegetation is inadequate, bale filters or other appropriate measures would be used to limit siltation.

Drainage control structures would be used to:

- transport surface runoff across disturbed areas with minimal erosion
- direct surface drainage away from disturbed areas
- provide downgradient control of runoff and sediment from all disturbed areas

These structures include drainage channels and water bars. Water bars would be used to direct intercepted runoff away from disturbed areas. Spacing intervals would be:

Slope Gradient (%)	Typical Spacing (ft)
5 - 15	150
16 - 30	100
Greater than 30	75

Soils could also be impacted by fluid spills, including engine oil, hydraulic oil, gear lube, anti-freeze, and fuel (gasoline or diesel fuel). These spills could severely affect soil in localized areas; concentrations may be capable of soil sterilization. Mitigation would include removal and approved disposal of soil from localized spill areas followed by replacement with clean soil and rehabilitation as directed by the authorized officer. Equipment leaks and drips would be fixed immediately upon discovery by the contractor, permittee, or BLM personnel.

All barbed wire fence construction would utilize steel T posts and wooden set posts at corners, stress panels and fence breaks. Wheeled equipment may be used to install the posts and wire creating a short-term impact on vegetation and soils adjacent to the fence alignment. New roads or trails would not be initiated along proposed fence routes, though permittees would be authorized to travel adjacent to fences for maintenance purposes. New fences would alter traditional livestock movement patterns and could create trailing along alignments. Minimal impacts to soils if trailing occurs would be concentrated to the linear fence routes.

All proposed stockwater pipelines would be installed utilizing rotary chain trenchers. Rotary trenchers create a surface disturbance only 6-12" wide, minimizing soil disturbance and potential negative impacts. Trenches would be backfilled immediately upon pipe installation and pressure test completion. Reseeding of the backfilled trenches is generally not required due to the low level of surface disturbance and natural encroachment of adjacent vegetation. Stocktank installation associated with proposed pipeline construction projects or spring development, maintenance and repair would impact soils. The small footprint required during the construction phase (20' x 20') would minimize short-term impacts. Long-term impacts would result from concentrated livestock use around the stocktanks and associated trailing to and from the water source. Mitigation would include proper tank placement relative to resource concerns and livestock grazing management objectives. Stocktanks would not be placed on narrow ridges, in confined spaces or corridors, in riparian areas, or on slopes greater than 5%.

4.2.11 Air Quality

This alternative would not impact air quality.

4.2.12 Socio-Economics

Alternative 2 would create a short-term economic impact on permittees with allotments not meeting rangeland health standards. The BLM would require grazing management changes or range improvements to meet upland and/or riparian health standards. The Permittees would be responsible for a portion of most proposed projects. In the long term, however, proposed changes would lead to healthy rangelands and sustainable livestock grazing. There would be no impacts to permittees whose allotments are meeting rangeland health standards.

5.0 Consultation and Coordination

The Snowies – Little Belts EA was prepared by a BLM interdisciplinary team including:

- Lowell Hassler, Team Leader/Natural Resource Specialist
- Adam Carr, Rangeland Management Specialist
- Fred Roberts, Wildlife Biologist
- Chad Krause, Hydrologist
- Bruce Reid, Forester
- Vinita Shea, Rangeland Management Specialist
- Dan Brunkhorst, Rangeland Management Specialist
- Zane Fulbright, Archaeologist
- Dan Frank, Cartographic Technician
- Betty Westburg, Range Technician
- Rod Sanders, Recreation Specialist

Other BLM personnel who provided assistance:

- Craig Flentie, Public Affairs Specialist
- Jerry Majerus, NEPA Coordinator
- Willy Frank, Assistant Field Manager, Resources
- Kay Haight, Editing
- Linda Roberts, Editing
- Loyd Bantz, Range Technician
- Mike Barrick, Range Technician
- Debbie Tucek, Realty Specialist

Other agency personnel involved in or notified during the planning process:

- Tom Stivers, MT FWP
- Ann Tews, MT FWP
- Clive Rooney, MT DNRC
- Jim Sparks, Fergus County Weed District

All grazing permittees were contacted by mail or phone during the planning process. The BLM met with all permittees whose allotments were not meeting one or more of the rangeland health standards. A public meeting was held Thursday, February 28, 2008 in the LFO conference room.

APPENDICES

Appendix A	Guidelines for Livestock Grazing Management
Appendix B	Standards for Rangeland Health
Appendix C	Monitoring and Evaluation
Appendix D	Upland Health Assessments & Monitoring Schedule
Appendix E	Riparian Health Assessments
Appendix F	Riparian Monitoring Schedule
Appendix G	Corrective Adjustments for Resource Protection
Appendix H	Upland and Riparian Plant List
Appendix I	Proposed Range Improvement Projects
Appendix J	Montana Noxious Weed List
Appendix K	Current Allotment Information
Appendix L	Land Use Plan Guidance
Appendix M	Standards (determinations by allotment)
Appendix N	BLM Drought Policy
Appendix O	References

Appendix A
Guidelines for Livestock Grazing Management

Guideline #1:

Grazing will be managed in a manner that will maintain the proper balance between soils, water, and vegetation over time. This balance varies with location and management objectives, historic use, and natural fluctuations, but acceptable levels of use can be developed that are compatible with resource objectives.

Guideline #2:

Manage grazing to maintain watershed vegetation, species richness, and floodplain function. Maintain riparian vegetative cover and structure to trap and hold sediments during run-off events to build streambanks, recharge aquifers, and dissipate flood energy. Grazing management should promote deep-rooted herbaceous vegetation to enhance streambank stability. Where non-native species are contributing to proper functioning conditions, they are acceptable. Where potential for palatable woody shrub species (willows, dogwood, etc.) exists, promote their growth and expansion within riparian zones.

Guideline #3:

Pastures and allotments will be managed based on their sensitivity and suitability for livestock grazing. Where determinations have not been previously documented, suitability for grazing will be determined by: topography, slope, distance from water, vegetation habitat types, and soil types must be considered when determining grazing suitability. Unsuitable areas should be excluded from grazing.

Guideline #4:

Management strategies for livestock grazing will ensure that long-term resource capabilities can be sustained. End of season stubble heights, streambank moisture content, and utilization of herbaceous and woody vegetation are critical factors which must be evaluated in any grazing strategy. These considerations are essential to achieving long-term vegetation or stream channel objectives and should be identified on a site-specific basis and used as terms and conditions.

Guideline #5:

Grazing will be managed to promote desired plants and plant communities of various age classes, based on the rate and physiological conditions of plant growth. Management approaches will be identified on a site-specific basis and implemented through terms and conditions. Caution should be used to avoid early spring grazing use when soils and streambanks are wet and susceptible to compaction and physical damage that occurs with animal trampling. Likewise, late summer and fall treatments in woody shrub communities should be monitored closely to avoid excessive utilization.

Guideline #6:

The development of springs and seeps or other projects affecting water and associated resources shall be designed to protect the ecological functions and processes of those sites.

Guideline #7:

Locate facilities (e.g., corrals, water developments) away from riparian-wetland areas.

Guideline #8:

When provided, supplemental salt and minerals should not be placed adjacent to watering locations or in riparian-wetland areas so not to adversely impact streambank stability, riparian vegetation, water quality, or other sensitive areas (i.e., key wildlife wintering areas). Salt and minerals should be placed in upland sites to draw livestock away from watering areas or other sensitive areas and to contribute to more uniform grazing distribution.

Guideline #9:

Noxious weed control is essential and should include: cooperative agreements, public education, and integrated pest management (mechanical, biological, chemical).

Guideline #10:

Livestock management should utilize practices such as those referenced by the NRCS published prescribed grazing technical guide to maintain, restore or enhance water quality.

Guideline #11:

Grazing management should maintain or improve habitat for federally listed threatened, endangered, and sensitive plants and animals.

Guideline #12:

Grazing management should maintain or promote the physical and biological conditions to sustain native populations and communities.

Guideline #13:

Grazing management should give priority to native species. Non-native plant species should only be used in those situations where native seed is not readily available in sufficient quantities, where native plant species cannot maintain or achieve the standards, or where non-native plant species provide an alternative for the management and protection of native rangelands.

Guideline #14:

Allotment monitoring determines ho on-going management practices are affecting the rangeland. To do so, the evaluations should be based on: measurable management objectives; permanent and/or repeatable monitoring locations; and short-term and long-term data.

Appendix B
Standards for Rangeland Health

Standards are statements of physical and biological condition or degree of function required for health sustainable rangelands. Achieving or making significant and measurable progress towards these functions and conditions is required of all uses of public rangelands. Historical data, when available, should be used when assessing progress towards these standards.

Standard #1: Uplands Are In Proper Functioning Condition

This means that soils are stable and provide for capture, storage and safe release of water appropriate to soil type, climate and landform. The amount and distribution of ground cover (i.e., litter, live and standing dead vegetation, microbiotic crusts, and rock/gravel) for identified ecological site(s) or soil-plant associations are appropriate for soil stability.

Evidence of accelerated erosion in the form of rills and/or gullies, erosional pedestals, flow patterns, physical soil crusts/surface scaling and compaction layers below the soil surface is minimal. Ecological processes including hydrologic cycle, nutrient cycle and energy flow are maintained and support healthy biotic populations. Plants are vigorous, biomass production is near potential and there is a diversity of species characteristic of and appropriate to the site. Assessing proper functioning conditions will consider use of historical data.

As indicated by:

Physical Environment

- erosional flow patterns
- surface litter
- soil movement by water and wind
- soil crusting and surface sealing
- compaction layer
- rills
- gullies

Biotic Environment

- cover distribution
- community richness
- community structure
- exotic plants
- plant status
- seed production
- recruitment
- nutrient cycle

Standard #2: Riparian And Wetland Areas Are In Proper Functioning Condition

This means that the functioning condition of riparian-wetland areas is a result of the interaction among geology, soil, water and vegetation.

Riparian-wetland areas are functioning properly when adequate vegetation, landform or large woody debris is present to dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve flood water retention and groundwater recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water

depth, duration, and temperature necessary for native fish production, waterfowl breeding, and other uses appropriate for the area that will support greater species richness.

The riparian-wetland vegetation is a mosaic of species richness and community structure serving to control erosion, shade water, provide thermal protection, filter sediment, aid floodplain development, dissipate energy, delay flood water, and increase recharge of groundwater where appropriate to landform.

The stream channels and flood plain dissipate energy of high water flows and transport sediment appropriate for the geomorphology (e.g., gradient, size, shape, roughness, confinement, and sinuosity), climate, and landform.

Soils support appropriate riparian-wetland vegetation, allowing water movement, filtering sediment, and slowing ground water movement for later release. Stream channels are not entrenching beyond natural climatic variations and water levels maintain appropriate riparian-wetland species.

Riparian areas are defined as land directly influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lake shores and streambanks are typical riparian areas. Excluded are such sites as ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil. Assessing proper functioning conditions will consider use of historical data.

As indicated by:

Hydrologic

- floodplain inundated in relatively frequent events (1-3 years)
- amount of altered streambanks
- sinuosity, width/depth ratio, and gradient are in balance with the landscape setting (i.e., landform, geology, and bioclimatic region); and upland watershed not contributing to riparian degradation.

Erosion/Deposition

- plain and channel characteristics; i.e., rocks, coarse and/or woody debris adequate to dissipate energy
- point bars are being created and older point bars are being vegetated
- lateral stream movement is associated with natural sinuosity
- system is vertically stable
- stream is in balance with water and sediment being supplied by the watershed (i.e., no excessive erosion or deposition)

Vegetation

- reproductive and diverse age class of vegetation
- diverse composition of vegetation
- species present indicate maintenance of riparian soil moisture characteristics
- streambank vegetation is comprised of those plants or plant communities that have deep binding root masses capable of withstanding high streamflow events
- utilization of trees and shrubs
- riparian plants exhibit high vigor
- adequate vegetative cover present to protect banks and dissipate energy during high flows
- where appropriate, plant communities in the riparian area are an adequate source of woody debris

Standard #3: Water Quality Meets Montana State Standards

This means that surface and ground water on public lands fully support designated beneficial uses described in the Montana Water Quality Standards. Assessing proper functioning conditions will consider use of historical data.

As indicated by:

- dissolved oxygen concentration
- pH
- turbidity
- temperature
- fecal coliform
- sediment
- color
- toxins
- others: ammonia, barium, boron, chlorides, chromium, cyanide, endosulfan, lindane, nitrates, phenols, phosphorus, sodium, sulfates, etc.

Standard #4: Air Quality Meets Montana State Standards

This means that air quality on public lands helps meet the goals set out in the State of Montana Air Quality Implementation Plan. Efforts will be made to limit unnecessary emissions from existing and new point or non-point sources.

The BLM management actions or use authorizations do not contribute to air pollution that violates the quantitative or narrative Montana Air Quality Standards or contributes to deterioration of air quality in selected class area.

As indicated by:

Section 176(c) Clean Air Act which states that activities of all federal agencies must conform to the intent of the appropriate State Air Quality Implementation Plan and not:

- cause or contribute to any violations of ambient air quality standards
- increase the frequency of any existing violations
- impede the State's progress in meeting their air quality goals

Standard #5: Habitats are provided to maintain healthy, productive and diverse populations of native plant and animal species, including special status species (federally threatened, endangered, candidate or Montana species of special concern as defined in BLM Manual 6840, Special Status Species Management)

This means that native plant and animal communities will be maintained or improved to ensure the proper functioning of ecological processes and continued productivity and diversity of native plant lifeforms. Where native communities exist, the conversion to exotic communities after disturbance will be minimized. Management for indigenous vegetation and animals is a priority. Ecological processes including hydrologic cycle, and energy flow, and plant succession are maintained and support healthy biotic populations. Plants are vigorous, biomass production is near potential, and there is a diversity of plant and animal species characteristic of and appropriate to the site. The environment contains

components necessary to support viable populations of a sensitive/threatened and endangered species in a given area relative to site potential. Viable populations are wildlife or plant populations that contain an adequate number of reproductive individuals distributed on the landscape to ensure the long-term existence of the species. Assessing proper functioning conditions will consider use of historical data.

As indicated by:

- plants and animals are diverse, vigorous and reproducing satisfactorily noxious weeds are absent or insignificant in the overall plant community
- spatial distribution of species is suitable to ensure reproductive capability and recovery
- a variety of age classes are present
- connectivity of habitat or presence of corridors prevents habitat fragmentation
- species richness (including plants, animals, insects and microbes) are represented
- plant communities in a variety of successional stages are represented across the landscape.

Appendix C
Monitoring and Evaluation

Key areas would be established for upland and riparian utilization. Existing upland study sites would continue to be used and additional sites may need to be established. Additional riparian study sites would need to be established. There should be a minimum of one upland and one riparian study site per pasture unless no significant riparian habitat exists in the pasture.

Monitoring would be collected by permittees and the BLM. Permittees would be responsible to constantly monitor livestock distribution, utilization levels, and stubble heights on their allotments to ensure that livestock grazing is consistent with established guidelines. Monitoring would be conducted according to the Monitoring for Success guidebook (DNRC, August, 1999). Permittees would be responsible to send data and photos of each monitoring site yearly to BLM. The photos would be taken following grazing use. Photos would be reviewed and if there is concern about the site then the BLM would plan to monitor the site the next year.

Monitoring would be conducted utilizing the key species dominant at each study site. In most cases, key upland species would be western wheat grass, green needle and blue bunch wheat grass.

Upland study plots are marked by UTM coordinates listed in Appendix D. Permittees would take four general landscape photos taken from the UTM coordinate facing north, south, east and west. Another photo would be taken directly at the ground. Photos for riparian monitoring sites would be taken from the upstream end of the study reach looking downstream.
BLM would monitor sites (riparian and upland) according to their present condition rating:

- Proper Functioning Condition sites: every 5 years
- Functioning At Risk sites: every 2-3 years
- Non-Functioning sites: yearly

Appendices D & F list the upland and riparian monitoring schedules by study plot.

BLM personnel will be available to provide monitoring training for permittees.

First order fire effects would be monitored following the prescribed burns.

Review of monitoring data would occur yearly. An evaluation taking into account applicable watershed impacts would need to be completed within 10 years for permit renewal. The BLM may require permit/lease holders to monitor conditions on allotments in the future.

The monitoring schedule was established based on current resource conditions and the need to assess impacts of proposed changes. Random visits will also be taken to the allotments listed above to assess overall conditions. The schedule shown above does not include monitoring of restoration or prescribed fire projects.

Snowies - Little Belts EA: Appendix D - Upland Health Assessments and Monitoring Schedule

Allotment Name	Allot. No. & Transect No.	Identification Number (In order to adhere to the Privacy Act, the names of permittees will not be used in this table. Each permittee was informed, by letter, of which number refers to his/her allotment(s)).	Ecol. Site Index Score/seral stage	Trend	Range Health Indicators (departure from expected for the site)	Transect UTM Coordinates	Monitoring Schedule and Comments
South Elk Creek	02802 T1	001	75 - pnc	6 - up	slight/moderate	12T 0669267 5194520	5 years
Luther	20054 T1	002	66 - late	3 - up	slight/moderate	12T 0000000 0000000	5 years
Luther	20054 T2	002	55 - late	1 - up	none/slight	12T 0604028 5181162	5 years
Luther	20054 T3	002	45 - mid	3 - up	none/slight	12T 0604800 5181640	5 years
Nebel Coulee	09665 T1	003	29 - mid	1 - down	none/slight	12T 0527639 5217541	5 years
Harlow Ranch	10038 T1	004	36 - mid	0 - static	none/slight	12T 0612915 5189964	5 years
South Forest Grove	12604 T1	005	56 - late	6 - up	slight/moderate	12T 0645998 5203857	5 years
Buck Ridge	02619 T1	006	59 - late	4 - up	slight/moderate	12T 0653098 5207750	5 years
Surenough Creek	12607 T1	007	41 - mid	2 - down	slight/moderate	12T 0643977 5198665	3 years
Surenough Creek	12607 T2	007	45 - mid	0 - static	none/slight	12T 0643481 5200136	3 years
Surenough Creek	12607 T3	007	50 - mid	1 - up	slight/moderate	12T 0652075 5205545	3 years
Bear Creek Headwaters	02817 T1	008	50 - mid	5 - up	none/slight	12T 0646576 5197958	5 years
Vinger Place	02526 T1	009	60 - late	5 - up	none/slight	12T 0672619 5193111	5 years
Moulton	02679 T1	010	16 - early	1 - down	slight/moderate	12T 0669965 5212796	3 years
Twin Sisters	09695 T1	011	70 - late	5 - up	none/slight	12T 0573464 5180064	5 years
Single	02618 T1	012	60 - late	4 - up	none/slight	12T 0662352 5202897	5 years
Single	02618 T2	012	44 - mid	3 - up	none/slight	12T 0668039 5202923	5 years
Finkbeiner EOU	02699 T1	013	91 - pnc	6 - up	none/slight	12T 0663491 5201932	5 years
Butler Coulee	02652 T1	014	60 - late	7 - up	none/slight	12T 0673811 5201079	5 years
Athern Creek	02814 T1	015	53 - late	5 - up	none/slight	12T 0647820 5197360	5 years
Blacktail Hills	09834 T1	016	54 - late	4 - up	none/slight	12T 0540405 5209363	5 years
Dinger	02809 T1	017	40 - mid	3 - up	none/slight	12T 0660534 5191564	5 years
Dinger	02809 T2	017	72 - late	8 - up	none/slight	12T 0660917 5193219	5 years
Dinger	02809 T3	017	41 - mid	3 - up	none/slight	12T 0662372 5195315	5 years
Beaver Ball Creek	02810 T1	018	73 - late	5 - up	none/slight	12T 0662036 5197002	5 years
Browns Canyon	09711 T1	019	60 - late	0 - static	none/slight	12T 0560665 5183007	5 years
Atherton Creek	02622 T1	020	65 - late	3 - up	none/slight	12T 0654931 5207475	5 years
Blacktail Creek	02811 T1	021	61 - late	4 - up	none/slight	12T 0654598 5196685	5 years
Forest Grove	02651 T1	022	43 - mid	1 - up	none/slight	12T 0647303 5206993	5 years
Forest Grove	02651 T2	022	60 - late	8 - up	none/slight	12T 0646829 5203572	5 years
McCartney Creek	02812 T1	023	75 - late	4 - up	none/slight	12T 0648162 5192194	5 years
Grass Range	02626 T1	024	74 - late	6 - up	none/slight	12T 0668542 5212251	3 years
Hansen Coulee	09793 T1	025	67 - late	7 - up	none/slight	12T 0522997 5226311	5 years
Martin Creek	09859 T1	026	37 - mid	3 - up	slight/moderate	12T 0541771 5247853	3 years
Harlow	19730 T1	027	62 - late	3 - up	none/slight	12T 0542116 5217918	5 years

* The monitoring schedule was established based on current resource conditions and the need to assess impacts of proposed changes. The schedule does not include random visits or monitoring of restoration projects.

Green Pole	20049 T1	028	48 - mid	0 - static	slight/moderate	12T 0623006 5190530	5 years
Beckett	02518 T1	029	73 - late	6 - up	none/slight	12T 0657795 5202377	5 years
Pulp 40	02527 T1	030	23 - early	2 - down	moderate	12T 0667538 5189482	5 years
Cache Creek	09750 T1	031	64 - late	5 - up	none/slight	12T 0520811 5232931	5 years
Willow Creek	02807 T1	032	53 - late	5 - up	none/slight	12T 0653269 5181067	5 years
Willow Creek	02807 T2	032	45 - mid	5 - up	none/slight	12T 0656207 5180365	5 years
Willow Creek	02807 T3	032	70 - late	5 - up	none/slight	12T 0654657 5184170	5 years
Pronghorn Ranch	02826 T1	033	32 - mid	3 - up	none/slight	12T 0662252 5179711	5 years
Flying O	09738	034	none	none	none/slight	12T 0000000 0000000	5 years
Willow Creek Headwater	19737 T1	035	65 - late	1 - up	none/slight	12T 0551959 5207905	5 years
Six Diamond	19824 T1	036	68 - late	0 - static	slight/moderate	12T 0543334 5243794	5 years
Springs Lease	02534 T1	037	45 - mid	3 - up	slight/moderate	12T 0666115 5192517	5 years
Many Springs	02816T1	038	45 mid	4 - up	none/slight	12T 0666930 5194026	5 years
Mary's Knoll	09751 T1	039	70 - late	5 - up	none/slight	12T 0557629 5204844	5 years
Lehfeldt Ind.	02818 T1	040	49 - mid	2 - up	none/slight	12T 0639308 5183551	5 years
South Fork Ranch	02820 T1	041	27 - mid	1 - down	slight/moderate	12T 0636003 5181996	5 years
South Fork Ranch	02820 T2	041	52 - mid	5 - up	none/slight	12T 0639568 5182985	5 years
Potter Creek	02831 T1	042	60 - late	4 - up	none/slight	12T 0648723 5196898	5 years
Potter Creek	02831 T2	042	70 - late	1 - up	slight/moderate	12T 0647070 5197185	5 years
Alkali Creek	02645 T1	043	51 - late	3 - up	slight/moderate	12T 0650936 5213076	3 years
Lindquist	02643 T1	044	28 - mid	1 - up	slight/moderate	12T 0662802 5203239	5 years
French	12625 T1	045	15 - early	2 - down	slight/moderate	12T 0664950 5205768	5 years
Piper	02531 T1	046	53 - late	1 - down	none/slight	12T 0639154 5206397	5 years
Dry Fork Creek	02530 T2	047	72 - late	4 - up	none/slight	12T 0661621 5203130	5 years
Rose Canyon	02672 T1	048	45 - mid	4 - up	none/slight	12T 0653399 5202286	5 years
Rose Canyon	02672 T2	048	27 - mid	2 - up	slight/moderate	12T 0653732 5201731	5 years
Meadors Bench	02648 T1	049	50 - late	5 - up	none/slight	12T 0657277 5203547	5 years
Running Wolf Creek	09775 T1	050	55 late	7 - up	none/slight	12T 0546836 5206810	5 years
Horsethief Ridge	02629 T1	051	35 - mid	3 - up	none/slight	12T 0642685 5207975	5 years
Horsethief Coulee	02634 T1	052	40 - mid	4 - up	none/slight	12T 0638731 5207253	5 years
Dickson Coulee	02532 T1	053	67 - late	5 - up	none/slight	12T 0653889 5197407	5 years
N Bar	02821 T1	054	53 - late	4 - up	none/slight	12T 0661677 5191443	5 years
N Bar	02821 T2	054	59 - late	3 - up	none/slight	12T 0660988 5185409	5 years
South Beckett	02829	055	none	none	none/slight	12T 0000000 0000000	5 years
West Fork Beaver Cr.	10062 T1	056	33 - mid	2 - up	none/slight	12T 0609892 5195101	5 years
Half Moon	02827 T1	057	21 - early	2 - up	none/slight	12T 0637132 5185655	5 years
Half Moon	02827 T2	057	65 - late	5 - up	none/slight	12T 0634755 5183645	5 years
South Fork Flatwillow	02819	058	none	none	none/slight	12T 0000000 0000000	5 years
Carl's Spring	02657 T1	059	35 - mid	4 - up	slight/moderate	12T 0663719 5205122	5 years
C & H	20098 T1	060	50 - mid	1 - up	none/slight	12T 0615272 5189843	5 years
Buffalo	09790 T1	061	64 - late	4 - up	none/slight	12T 0572583 5180087	5 years

* The monitoring schedule was established based on current resource conditions and the need to assess impacts of proposed changes. The schedule does not include random visits or monitoring of restoration projects.

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Pagil Gulch	09795 T1	062	68 - late	3 - up	none/slight	12T 0556709 5182956	5 years
Pagil Gulch	09795 T2	062	70 - late	4 - up	slight/moderate	12T 0556922 5183050	5 years
Pagil Gulch	09795 T3	062	72 - late	6 - up	none/slight	12T 0558566 5183696	5 years
Bar Diamond	02825 T1	063	55 - late	4 - up	slight/moderate	12T 0637459 5185181	5 years
Bar Diamond	02825 T2	063	37 - mid	2 - up	none/slight	12T 0635026 5183634	5 years
Bar Diamond	02825 T3	063	44 - mid	1 - up	none/slight	12T 0635159 5184563	5 years
Bar Diamond	02825 T4	063	55 - late	4 - up	none/slight	12T 0637722 5183494	5 years
Muley Coulee	02823 T1	064	53 - late	3 - up	none/slight	12T 0664258 5196932	5 years
Bald Butte	12806 T1	065	45 - mid	2 - up	none/slight	12T 0648495 5187273	5 years
Bald Butte	12806 T2	065	63 - late	2 - up	slight/moderate	12T 0524572 5184732	5 years
Rouns Place	02520	066	none	none	none/slight	12T 0000000 0000000	5 years
Shannon Creek	09813 T1	067	49 - mid	3 - up	none/slight	12T 0534881 5221272	5 years
Shannon Creek	09813 T2	067	63 - late	6 - up	none/slight	12T 0537329 5222714	5 years
Sun Creek	09815 T1	068	68 - late	4 - up	none/slight	12T 0547860 5214705	5 years
Elk Creek	02830 T1	069	79 - late	8 - up	none/slight	12T 0669635 5196786	5 years
Elk Creek	02830 T4	069	58 - late	6 - up	slight/moderate	12T 0668554 5195170	5 years
Shadow Mtn.	02605 T1	070	56 - late	5 - up	none/slight	12T 0639049 5210114	5 years
Saure Place	09817 T1	071	60 - late	4 - up	slight/moderate	12T 0594021 5234889	5 years
Wolf Butte	09819 T1	072	60 - late	3 - up	none/slight	12T 0541428 5215529	3 years
No Go	02671 T1	073	49 - mid	5 - up	none/slight	12T 0660447 5207564	5 years
East Fork Beaver Cr.	20001 T1	074	55 - late	1 - up	none/slight	12T 0612668 5195664	5 years
Surprise Creek	09829 T1	075	77 - pnc	7 - up	none/slight	12T 0547175 5220342	5 years
North Oswick	02675 T1	076	74 - late	3 - up	none/slight	12T 0690937 5214315	5 years
Barber	09862 T1	077	75 - pnc	10 - up	none/slight	12T 0601164 5250526	5 years
Sage Creek	09745 T1	078	25 - early	1 - down	slight/moderate	12T 0594903 5234673	3 years
Three Bar	20035 T1	079	53 - late	3 - up	none/slight	12T 0604376 5184131	5 years
Heble	02632 T1	080	49 - mid	6 - down	slight/moderate	12T 0668099 5209921	3 years
North McDonald	12612 T1	081	75 - pnc	9 - up	none/slight	12T 0661565 5212922	5 years

* The monitoring schedule was established based on current resource conditions and the need to assess impacts of proposed changes. The schedule does not include random visits or monitoring of restoration projects.

Allotment Name	Allotment No.	Identification Number (In order to adhere to the Privacy Act, the names of permittees will not be used in this table. Each permittee was informed, by letter, of which number refers to his/her allotment(s)).	Stream Name	Health Rating	Distance (miles)	Meeting Standards?	Reason Not Meeting
South Elk Creek	02802	001					
Luther	20054	002					
Nebel Coulee	09665	003	Unknown Tributary to Big Otter Creek	PFC	0.85	YES	
Harlow Ranch	10038	004					
South Forest Grove	12604	005	Unknown Tributary to South Fork of McDonald Creek	PFC	0.81	YES	
Buck Ridge	02619	006	Unknown Tributary to North Fork McDonald Creek	FAR(upward)	0.54	NO	making progress
Surenough Creek	12607	007	Surenough Creek	FAR(static)	0.69	NO	livestock
Bear Creek Headwaters	02817	008					
Vinger Place	02526	009					
Moulton	02679	010					
Twin Sisters	09695	011	Unnamed Spring	NF		NO	livestock
Single	02618	012	Lentic Wetland	PFC	38.4 acres	YES	
Finkbeiner EOU	02699	013					
Butler Coulee	02652	014					
Athern Creek	02814	015					
Blacktail Hills	09834	016	Dry Wolf Creek	PFC	0.5	YES	
Dinger	02809	017					
Beaver Ball Creek	02810	018					
Browns Canyon	09711	019					
Atherton Creek	02622	020					
Blacktail Creek	02811	021					
Forest Grove	02651	022	Unknown Tributary to South Fork of McDonald Creek	PFC	0.81	YES	
McCartney Creek	02812	023					
Grass Range	02626	024					
Hansen Coulee	09793	025					
Martin Creek	09859	026					
Harlow	19730	027					
Green Pole	20049	028					
Beckett	02518	029					
Pulp 40	02527	030					
Cache Creek	09750	031	Cache Creek	FAR(static)	0.26	NO	livestock
Willow Creek	02807	032					
Pronghorn Ranch	02826	033					
Flying O	09738	034					
Willow Creek Headwaters	19737	035					
Six Diamond	19824	036					
Springs Lease	02534	037					
Many Springs	02816	038					
Mary's Knoll	09751	039					
Lehfeldt Ind.	02818	040	Unknown Tributary to South Fork Flatwillow Creek	PFC	1.14	YES	
South Fork Ranch	02820	041					
Potter Creek	02831	042					
Alkali Creek	02645	043					
Lindquist	02643	044					
French	12625	045					
Piper	02531	046					
Dry Fork Creek	02530	047					
Rose Canyon	02672	048					
Meadors Bench	02648	049					
Running Wolf Creek	09775	050					
Horsethief Ridge	02629	051					
Horsethief Coulee	02634	052					
Dickson Coulee	02532	053					
N Bar	02821	054					
South Beckett	02829	055					
West Fork Beaver Cr.	10062	056					
Half Moon	02827	057	North Fork Flatwillow Creek	PFC (low end)	0.25	YES	
South Fork Flatwillow	02819	058	South Fork Flatwillow Creek	PFC	0.27	YES	
Carl's Spring	02657	059					
C & H	20098	060	Rock Creek	PFC	0.46	YES	
Buffalo	09790	061					
Pagil Gulch	09795	062					
Bar Diamond	02825	063					
Muley Coulee	02823	064					

Bald Butte	12806	065	South Fork Flatwillow Creek	FAR(downward)	0.55	NO	livestock
Rouns Place	02520	066					
Shannon Creek	09813	067					
Sun Creek	09815	068					
Elk Creek	02830	069					
Shadow Mtn.	02605	070	Unknown Tributary to North Fork McDonald Creek	PFC	0.47	YES	
Saure Place	09817	071					
Wolf Butte	09819	072					
No Go	02671	073					
East Fork Beaver Cr.	20001	074					
Surprise Creek	09829	075					
North Oswick	02675	076					
Sage Creek	09745	077					
Barber	09862	078					
Three Bar	20035	079					
Heble	02632	080					
North McDonald	12612	081	North Fork McDonald Creek	PFC	0.62	YES	

Allotment Name	Allotment No.	Identification Number (In order to adhere to the Privacy Act, the names of permittees will not be used in this table. Each permittee was informed, by letter, of which number refers to his/her allotment(s)).	Stream Name	Health Rating	BLM Monitoring Schedule
South Elk Creek	02802	001			
Luther	20054	002			
Nebel Coulee	09665	003	Unknown Tributary to Big Otter Creek	PFC	10 years
Harlow Ranch	10038	004			
South Forest Grove	12604	005	Unknown Tributary to South Fork of McDonald Creek	PFC	10 years
Buck Ridge	02619	006	Unknown Tributary to North Fork McDonald Creek	FAR(upward)	5 years
Surenough Creek	12607	007	Surenough Creek	FAR(static)	3 years
Bear Creek Headwaters	02817	008			
Vinger Place	02526	009			
Moulton	02679	010			
Twin Sisters	09695	011	Unnamed Spring	NF	10 years
Single	02618	012	Lentic Wetland	PFC	10 years
Finkbeiner EOU	02699	013			
Butler Coulee	02652	014			
Athern Creek	02814	015			
Blacktail Hills	09834	016	Dry Wolf Creek	PFC	10 years
Beaver Ball Creek	02810	017			
Dinger	02809	018			
Browns Canyon	09711	019			
Atherton Creek	02622	020			
Blacktail Creek	02811	021			
Forest Grove	02651	022	Unknown Tributary to South Fork of McDonald Creek	PFC	10 years
McCartney Creek	02812	023			
Grass Range	02626	024			
Hansen Coulee	09793	025			
Harlow	19730	026			
Martin Creek	09859	027			
Green Pole	20049	028			
Beckett	02518	029			
Pulp 40	02527	030			
Cache Creek	09750	031	Cache Creek	FAR(static)	5 years
Pronghorn Ranch	02826	032			
Willow Creek	02807	033			
Flying O	09738	034			
Willow Creek Headwaters	19737	035			
Six Diamond	19824	036			
Springs Lease	02534	037			
Many Springs	02816	038			
Mary's Knoll	09751	039			
Lehfeldt Ind.	02818	040	Unknown Tributary to South Fork Flatwillow Creek	PFC	10 years
South Fork Ranch	02820	041			
Potter Creek	02831	042			
Alkali Creek	02645	043			
Lindquist	02643	044			
French	12625	045			
Piper	02531	046			
Dry Fork Creek	02530	047			
Rose Canyon	02672	048			
Meadors Bench	02648	049			

Running Wolf Creek	09775	050			
Horsethief Ridge	02629	051			
Horsethief Coulee	02634	052			
South Beckett	02829	053			
Dickson Coulee	02532	054			
N Bar	02821	055			
West Fork Beaver Cr.	10062	056			
Half Moon	02827	057	North Fork Flatwillow Creek	PFC (low end)	5 years
South Fork Flatwillow	02819	058	South Fork Flatwillow Creek	PFC	10 years
Carl's Spring	02657	059			
C & H	20098	060	Rock Creek	PFC	10 years
Buffalo	09790	061			
Pagil Gulch	09795	062			
Bar Diamond	02825	063			
Muley Coulee	02823	064			
Bald Butte	12806	065	South Fork Flatwillow Creek	FAR(downward)	3 years
Rouns Place	02520	066			
Shannon Creek	09813	067			
Sun Creek	09815	068			
Elk Creek	02830	069			
Shadow Mtn.	02605	070	Unknown Tributary to North Fork McDonald Creek	PFC	10 years
Saure Place	09817	071			
Wolf Butte	09819	072			
No Go	02671	073			
East Fork Beaver Cr.	20001	074			
Surprise Creek	09829	075			
North Oswick	02675	076			
Sage Creek	09745	077			
Barber	09862	078			
Three Bar	20035	079			
Heble	02632	080			
North McDonald	12612	081	North Fork McDonald Creek	PFC	10 years

Appendix G
Corrective Adjustments for Resource Protection

The guidelines described in Appendix A are considered best management practices necessary to achieve objectives identified in this plan and to maintain or improve rangeland resources. Livestock use that exceeds the guideline will reduce the ability to maintain proper range conditions. The success of these guidelines is dependent on active involvement by the livestock permittees in the day-to-day management of allotments.

If the guidelines are exceeded and overuse does occur, corrective actions should be implemented during the next grazing season to insure that such use does not occur again and prevent necessary vegetative recovery from occurring. In such instances, prior to the next grazing season, the permittee(s) and BLM manager should cooperatively develop these corrective adjustments. The recommended management adjustments identified below are a tool that can be used, modified, or added to, on a case by case basis. It is important to note that they are not all inclusive and there may be other corrective adjustments that can be utilized to accomplish healthy rangelands and other resource objectives. The BLM would prefer that the grazing permittee(s) suggest corrective actions needed to maintain vegetative health and vigor while still meeting livestock management needs. If however, a cooperatively developed corrective adjustment cannot be reached, the following adjustments will be applied:

Recommended Stubble Height for Riparian Species = 4 Inches	
Actual Stubble Height (inches)	***Corrective Adjustment***
3 to 4 inches any one year	Discuss situation with permittee
3 to 4 inches two consecutive years	5 inch stubble height the next year
3 to 4 inches more than two consecutive years	6 inch stubble height the next year
2 to 3 inches any one year	5 inch stubble height the next year
2 to 3 inches two consecutive years	6 inch stubble height the next year
2 to 3 inches more than two consecutive years	Rest the pasture the following year
Less than 2 inches in any one year	Rest the pasture the following year

Recommended Riparian Tree and Shrub Utilization = Light to Moderate Browsing	
Actual Browse Level (Light, Moderate, or Intense)	***Corrective Adjustment***
Light to Moderate	No adjustment necessary
Intense any one year	Discuss situation with permittee
Intense two consecutive years	Eliminate hot season (July, August and September) grazing either through change in season of use or some form of fencing

Recommended Upland Species Utilization Level = 50% by Weight	
Actual Utilization Level (%)	***Corrective Adjustment***
Exceeds prescribed level by more than 10% but less than 25%	Discuss situation with permittee
Exceeds prescribed level by more than 25%	Discuss situation with permittee. Limit utilization to 40% the following year.

Appendix H
Upland and Riparian Plant List

Common Upland Plants	Common Riparian Plants
Trees: Ponderosa pine (Pinus ponderosa) Douglas fir (Pseudotsuga menziesii) Shrubs: Big sagebrush (Artemisia tridentata) Silver sagebrush (Artemisia cana) Juniper (Juniperus sp.) Woods' rose (Rosa woodsii) Snowberry (Symphoricarpos albus) Winterfat (Ceratoides lanata) Skunkbush Sumac (Rhus trilobata) Russet Buffaloberry (Shepherdia canadensis) Native Perennial Grasses: Western wheatgrass (Pascopyrum smithii) Bluebunch wheatgrass (Pseudoroegneria spicata) Prairie junegrass (Koeleria macrantha) Sandberg bluegrass (Poa sandbergii) Green needlegrass (Stipa viridula) Needle and thread (Stipa comata) Blue grama (Bouteloua gracilis) Prairie sandreed (Calamovilfa longifolia) Domestic Perennial Grasses: Crested wheatgrass (Agropyron cristatum) Intermediate wheatgrass (Elytrigia intermedia) Smooth brome (Bromus inermis) Kentucky Bluegrass (Poa pratensis) Timothy (Phleum pretense) Annual Grasses: Japanese brome (Bromus japonicus) Cheatgrass (Bromus tectorum) Forbs: Yellow sweetclover (Melilotus officinalis) Stricky Geranium (Geranium viscosissimum) Slimflower Scurfpea (Psoralidium tenuiflorum) Salisify (Trogopogon dubious) Fringed sagewort (Artemisia frigida) Western yarrow (Achillea millefolium) American vetch (Vicea americana) Succulents Pricklypear cactus (Opuntia polyacantha) Pincushion (Chaenactis glabriuscula) Pteridophyte Dense Clubmoss (Selaginella densa)	Trees: Boxelder (Acer negundo) Cottonwood (Populus deltoides) Green Ash (Fraxinus pennsylvanica) Peachleaf Willow (Salix amygdaloides) Quaking Aspen (Populus tremuloides) Rocky Mountain Maple (Acer glabrum) Bog Birch (Betula pumila) Shrubs: Buffaloberry (Shepherdia argentea) Buffalo Currant (Ribes odoratum) Chokecherry (Prunus virginiana) Golden Currant (Ribes aureum) Redosier Dogwood (Cornus sericea) Sandbar Willow (Salix exigua) Yellow Willow (Salix lutea) Hawthorne (Crataegus douglasii) Serviceberry (Amelanchier alnifolia) Forbs: American Licorice (Glycyrrhiza lepidota) Cattail (Typha latifolia) Cocklebur (Xanthium strumarium) Curly Dock (Rumex crispus) Horsetail (Equisetum arvense) Mint (Mentha arvensis) Yellow sweetclover (Melilotus officinalis) White sweetclover (Melilotus alba) Grasses: Baltic Rush (Juncus balticus) Barnyardgrass (Echinochloa muricata) Bulrush (Scripus maritimus) Creeping Spikesedge (Eleocharis palustris) Foxtail Barley (Hordeum jubatum) Hardstem Bulrush (Scripus acutus) Inland Saltgrass (Distichlis spicata) Kentucky Bluegrass (Poa pratensis) Orchardgrass (Dactylis glomerata) Prairie Cordgrass (Spartina pectinata) Quackgrass (Agropyron repens) Reed Canarygrass (Phalaris arundinacea) Sloughgrass (Beckmannia syzigachne) Smooth Brome (Bromus inermis) Threesquare Bulrush (Scirpus pungens) Western Wheatgrass (Pascopyrum smithii)

Snowies - Little Belts EA: Appendix I - Proposed Range Improvement Projects

Allotment Name	Allot. No.	Identification Number (In order to adhere to the Privacy Act, the names of permittees will not be used in this table. Each permittee was informed, by letter, of which number refers to his/her allotment(s)).	Proposed RI Projects	Project Area
South Elk Creek	02802	001		
Luther	20054	002		
Nebel Coulee	09665	003		
Harlow Ranch	10038	004		
South Forest Grove	12604	005		
Buck Ridge	02619	006	Proposed spring refurbishment 100' x 300'	.69 ac.
Surenough Creek	12607	007		
Bear Creek Headwaters	02817	008		
Vinger Place	02526	009		
Moulton	02679	010		
Twin Sisters	09695	011	Proposed Jack-Leg fence around a spring, 100' x 150'	.34 ac.
Single	02618	012		
Finkbeiner EOU	02699	013		
Butler Coulee	02652	014		
Athern Creek	02814	015		
Blacktail Hills	09834	016		
Dinger	02809	017		
Beaver Ball Creek	02810	018	Proposed fence around a developed spring, 100' x 100'	.23 ac.
Browns Canyon	09711	019		
Atherton Creek	02622	020	Proposed spring refurbishment 100' x 100'	.23 ac.
Blacktail Creek	02811	021		
Forest Grove	02651	022		
McCartney Creek	02812	023		
Grass Range	02626	024	Proposed crossfence to split allotment, 3 wire barbed wire	.25 mi.
Hansen Coulee	09793	025		
Martin Creek	09859	026		
Harlow	19730	027		
Green Pole	20049	028		
Beckett	02518	029	Proposed spring refurbishment 100' x 100'	.23 ac.
Pulp 40	02527	030		
Cache Creek	09750	031		
Willow Creek	02807	032		
Pronghorn Ranch	02826	033		
Flying O	09738	034		
Willow Creek Headwat	19737	035		
Six Diamond	19824	036		
Springs Lease	02534	037		
Many Springs	02816	038		
Mary's Knoll	09751	039		
Lehfeldt Ind.	02818	040		
South Fork Ranch	02820	041		
Potter Creek	02831	042		
Alkali Creek	02645	043		
Lindquist	02643	044	Proposed spring refurbishment and tank repair 100' x 100'	.23 ac.
French	12625	045	Proposed spring refurbishment 100' x 100'	.23 ac.
Piper	02531	046		
Dry Fork Creek	02530	047		
Rose Canyon	02672	048	Proposed electric fences (2) to optimize crested wheatgrass utilization	1.16 mi.
Meadors Bench	02648	049		
Running Wolf Creek	09775	050		
Horsethief Ridge	02629	051		
Horsethief Coulee	02634	052		
Dickson Coulee	02532	053		
N Bar	02821	054		
South Beckett	02829	055		
West Fork Beaver Cr.	10062	056		
Half Moon	02827	057		
South Fork Flatwillow	02819	058		
Carl's Spring	02657	059		
C & H	20098	060		
Buffalo	09790	061		

Pagil Gulch	09795	062		
Bar Diamond	02825	063		
Muley Coulee	02823	064		
Bald Butte	12806	065	Proposed riparian fence, 3 wire barbed wire	3,475'
Rouns Place	02520	066		
Shannon Creek	09813	067		
Sun Creek	09815	068		
Elk Creek	02830	069		
Shadow Mtn.	02605	070		
Saure Place	09817	071		
Wolf Butte	09819	072		
No Go	02671	073	Proposed spring repair and collection area fence 100' x 100'	.23 ac.
East Fork Beaver Cr.	20001	074		
Surprise Creek	09829	075		
North Oswick	02675	076		
Sage Creek	09745	077		
Barber	09862	078		
Three Bar	20035	079		
Heble	02632	080		
North McDonald	12612	081		

Appendix J
Montana Noxious Weed List

Montana noxious weeds are categorized according to the following criteria:

- *Category 1* noxious weeds are weeds that are currently established and generally widespread in many counties of the state. Management criteria include awareness and education, containment, and suppression of existing infestations and prevention of new infestations. These weeds are capable of rapid spread and render land unfit or greatly limit beneficial uses.

    - Canada Thistle (*Cirsium arvense*)
    - Field Bindweed (*Convolvulus arvensis*)
    - Whitetop or Hoary Cress (*Cardaria draba*)
    - Leafy Spurge (*Euphorbia esula*)
    - Russian Knapweed (*Centaurea repens*)
    - Spotted Knapweed (*Centaurea maculosa*)
    - Diffuse Knapweed (*Centaurea diffusa)*
    - Dalmatian Toadflax (*Linaria dalmatica)*
    - St. Johnswort (*Hypericum perforatum*)
    - Sulfur (Erect) Cinquefoil (*Potentilla recta*)
    - Common tansy (*Tanacetum vulgare*)
    - Ox-eye Daisy (*Chrysanthemum leucanthemum* L
    - Houndstongue (*Cynoglossum officinale* L.)
    - Yellow toadflax (*Linaria vulgaris)*

- *Category 2* noxious weeds have recently been introduced to the state or are rapidly spreading from their current infestation sites. These weeds are capable of rapid spread, rendering lands unfit for beneficial uses. Management criteria includes awareness and education, monitoring and containment of known infestations, and eradication where possible.

    - Dyers Woad (*Isatis tinctoria*)
    - Purple Loosestrife or Lythrum (*Lythrum salicaria*, *L. virgatum*, and any hybrid crosses thereof).
    - Tansy Ragwort (*Senecio jacobea* L)
    - Meadow Hawkweed Complex (*Hieracium pratense*,
    - *H. floribundum*, *H. piloselloides*)
    - Orange Hawkweed (*Hieracium aurantiacum* L.)
    - Tall Buttercup (*Ranunculus acris* L)
    - Tamarisk [Saltcedar] (*Tamarix* spp.)
    - Perennial pepperweed (*Lepidium latifolium*)

- *Category 3* noxious weeds have not been detected in the state or may be found only in small, scattered, localized infestations. Management criteria includes awareness and education, early detection and immediate action to eradicate infestations. These weeds are known pests in nearby states and are capable of rapid spread and render land unfit for beneficial uses.

    - Yellow Starthistle (*Centaurea solstitialis*)
    - Common Crupina (*Crupina vulgaris)*
    - Rush Skeletonweed (*Chondrilla juncea)*
    - Eurasian watermilfoil (*Myriophyllum spicatum*)
    - Yellow flag iris (*Iris pseudacoru)*

Snowies - Little Belts EA: Appendix K - Current Allotment Information - 81 Allotments, 68 Permittees

Allotment Name	Allotment No.	Identification Number (In order to adhere to the Privacy Act, the names of permittees will not be used in this table. Each permittee was informed, by letter, of which number refers to his/her allotment(s)).	Public Acres	AUMs	% Public Land	Livestock No.	Season of Use
South Elk Creek	02802	001	480	164	100	14 cattle	3/1-2/28
Luther	20054	002	400	36	100	3 cattle	3/1-2/28
Nebel Coulee	09665	003	760	67	100	10 cattle	6/1-10/31
Harlow Ranch	10038	004	120	12	51	2 cattle	6/1-11/30
South Forest Grove	12604	005	320	79	100	7 cattle	3/1-2/28
Buck Ridge	02619	006	200	47	100	6 cattle	5/1-12/31
Surenough Creek	12607	007	640	168	100	14 cattle	3/1-2/28
Bear Creek Headwaters	02817	008	280	73	100	7 cattle	3/1-2/28
Vinger Place	02526	009	40	11	100	1 cattle	3/1-2/28
Moulton	02679	010	320	86	100	7 cattle	3/1-2/28
Twin Sisters	09695	011	120	17	100	2 cattle	4/1-11/30
Single	02618	012	400	154	100	13 cattle	3/1-2/28
Finkbeiner EOU	02699	013	120	36	100	3 cattle	3/1-2/28
Butler Coulee	02652	014	40	6	100	1 cattle	5/1-12/1
Athern Creek	02814	015	280	70	100	6 cattle	3/1-2/28
Blacktail Hills	09834	016	280	30	100	2 cattle	3/1-2/28
Dinger	02809	017	480	163	100	14 cattle	3/1-2/28
Beaver Ball Creek	02810	018	80	26	100	2 cattle	3/1-2/28
Browns Canyon	09711	019	120	48	100	4 cattle	3/1-2/28
Atherton Creek	02622	020	160	26	100	2 cattle	3/1-2/28
Blacktail Creek	02811	021	40	12	100	1 cattle	3/1-2/28
Forest Grove	02651	022	200	45	100	4 cattle	3/1-2/28
McCartney Creek	02812	023	240	9	100	1 cattle	3/1-2/28
Grass Range	02626	024	520	176	100	22 cattle	5/15-9/15
Hansen Coulee	09793	025	400	20	100	2 cattle	3/1-2/28
Martin Creek	09859	026	80	16	100	1 cattle	3/1-2/28
Harlow	19730	027	200	64	100	21 cattle	6/1-8/31
Green Pole	20049	028	40	5	100	1 cattle	6/1-10/31
Beckett	02518	029	600	134	100	19 cattle	4/15-11/15
Pulp 40	02527	030	40	2	100	2 cattle	3/1-2/28
Cache Creek	09750	031	40	8	100	1 cattle	6/1-10/15
Willow Creek	02807	032	680	144	100	12 cattle	3/1-2/28
Pronghorn Ranch	02826	033	1135	145	100	13 cattle	3/1-2/28
Flying O	09738	034	80	7	100	1 cattle	3/1-2/28
Willow Creek Headwaters	19737	035	80	16	100	1 cattle	3/1-2/28
Six Diamond	19824	036	40	8	100	1 cattle	4/15-10/31
Springs Lease	02534	037	160	42	100	4 cattle	3/1-2/28
Many Springs	02816	038	160	41	100	4 cattle	3/1-2/28
Mary's Knoll	09751	039	80	8	100	1 cattle	3/1-2/28
Lehfeldt Ind.	02818	040	480	35	38	3 cattle	3/1-2/28
South Fork Ranch	02820	041	360	30	100	4 cattle	3/1-2/28

Snowies - Little Belts EA: Appendix K - Current Allotment Information - 81 Allotments, 68 Permittees

Potter Creek	02831	042	120	42	100	4 cattle	3/1-2/28
Alkali Creek	02645	043	320	66	100	6 cattle	3/1-2/28
Lindquist	02643	044	280	86	100	7 cattle	3/1-2/28
French	12625	045	160	60	100	9 cattle	6/1-12/31
Piper	02531	046	80	10	100	1 cattle	3/1-2/28
Dry Fork Creek	02530	047	570	123	100	10 cattle	3/1-2/28
Rose Canyon	02672	048	400	119	100	10 cattle	3/1-2/28
Meadors Bench	02648	049	240	41	100	4 cattle	3/1-2/28
Running Wolf Creek	09775	050	280	63	100	14 cattle	6/1-10/15
Horsethief Ridge	02629	051	40	1	100	1 cattle	3/1-2/28
Horsethief Coulee	02634	052	200	61	100	6 cattle	3/1-2/28
Dickson Coulee	02532	053	80	13	100	1 cattle	3/1-2/28
N Bar	02821	054	2715	586	100	49 cattle	3/1-2/28
South Beckett	02829	055	200	18	100	2 cattle	3/1-2/28
West Fork Beaver Cr.	10062	056	40	8	100	2 cattle	7/1-10/30
Half Moon	02827	057	440	91	100	8 cattle	3/1-2/28
South Fork Flatwillow	02819	058	280	9	100	1 cattle	3/1-2/28
Carl's Spring	02657	059	554	187	100	16 cattle	3/1-2/28
C & H	20098	060	280	24	100	3 cattle	4/1-11/30
Buffalo	09790	061	360	37	100	3 cattle	3/1-2/28
Pagil Gulch	09795	062	520	90	100	8 cattle	3/1-2/28
Bar Diamond	02825	063	420	92	100	8 cattle	3/1-2/28
Muley Coulee	02823	064	240	75	100	7 cattle	3/1-2/28
Bald Butte	12806	065	1920	270	24	250 cattle	6/1-10/15
Rouns Place	02520	066	40	4	100	1 cattle	3/1-2/28
Shannon Creek	09813	067	200	38	100	5 cattle	5/15-1/1
Sun Creek	09815	068	160	32	100	2 cattle	3/1-2/28
Elk Creek	02830	069	640	204	100	17 cattle	3/1-2/28
Shadow Mtn.	02605	070	320	9	100	9 cattle	5/1-11/30
Saure Place	09817	071	80	11	100	1 cattle	4/1-12/28
Wolf Butte	09819	072	280	85	100	6 cattle	3/1-2/28
No Go	02671	073	320	87	100	8 cattle	3/1-2/28
East Fork Beaver Cr.	20001	074	40	12	100	1 cattle	3/1-2/28
Surprise Creek	09829	075	80	17	100	3 cattle	5/1-10/25
North Oswick	02675	076	600	130	100	11 cattle	3/1-2/28
Sage Creek	09745	077	40	12	100	1 cattle	3/1-2/28
Barber	09862	078	40	4	100	1 cattle	4/1-11/15
Three Bar	20035	079	280	24	81	4 cattle	6/15-12/15
Heble	02632	080	200	53	100	4 cattle	3/1-2/28
North McDonald	12612	081	320	45	100	4 cattle	3/1-2/28
Totals			25674	5225			

Appendix L
Land Use Plan Guidance

- **Energy Mineral Resources:** No surface occupancy restrictions will be used to protect critical paleontology sites and archeology sites. Seasonal and distance restrictions will be included in oil and gas leases to mitigate impacts to wildlife habitat **(JVP)**.

- **Non-energy Mineral Resources:** Federal minerals are available for exploration and development unless withdrawn **(JVP)**.

- **Paleontology:** Major paleontological resources of scientific interest will be protected **(JVP)**

- **Soils:** Soil productivity will be maintained or improved by increasing vegetation cover and reducing erosion **(JVP, Standards and Guidelines)**.

- **Water Resource Management:** Surface and ground water quality will be maintained to meet or exceed state and federal water quality standards **(JVP, Standards and Guidelines)**.

- **Vegetation Management:** The ecological status will be improved or maintained to achieve a plant community of good (late seral) to excellent (potential natural community) on 80% of the public lands within 15 years of implementation of activity plans **(JVP)**.

Public lands that are in satisfactory (good and excellent) ecological condition will be maintained. Public lands with unsatisfactory (poor and fair) ecological condition will be managed according to multiple use objectives based on ecological site potential for specific uses **(Standards and Guidelines)**.

About 40% of the vegetation will continue to be allocated to livestock grazing and about 60% will continue to be allocated to watershed protection and wildlife forage and cover **(JVP)**.

The quality and quantity of summer wildlife forage will be improved by improving the reproduction and availability of palatable forbs for deer and antelope. Deer and antelope winter range (especially woody species) will be maintained and/or improved. Existing sagebrush stands will be maintained at a canopy cover of 15 to 50% with an effective height over 12 inches **(JVP, Standards and Guidelines)**.

The quality and quantity of nesting, brood rearing and winter habitat for upland game birds and waterfowl nesting habitat will be improved by providing residual upland grass and forb cover **(JVP, Standards and Guidelines)**.

Land will be managed for succulent vegetation production, including a variety of forbs, and big and silver sagebrush will be maintained on sage grouse wintering and nesting areas with a canopy coverage of 15 to 50% and an effective height of 12 inches. Woody vegetation will be maintained or improved for sharp-tailed grouse cover **(JVP, Standards and Guidelines)**.

- **Riparian and Wetland Management:** Riparian-wetland areas will be maintained or improved based on proper functioning condition and desires plant community. Riparian-wetland objectives will be initially accomplished through livestock grazing methods at current stocking levels. If grazing

methods are not successful in meeting management objectives, necessary actions will be taken to meet those objectives **(JVP, Standards and Guidelines)**.

All manageable riparian areas will have management plans implemented to maintain, restore or improve riparian areas to achieve a healthy and productive ecological condition for maximum long-term benefits and values **(Standards and Guidelines)**.

- **Land Treatments:** Land treatments will be used to meet watershed, grazing management and wildlife objectives but will be applied only where grazing management alone will not accomplish the desired result **(JVP)**.

- **Noxious Plants:** Noxious plants will be controlled or eradicated through integrated pest management in order to maintain native rangelands **(JVP, Standards and Guidelines)**.

- **Wildlife and Fisheries Management:** Suitable habitat for all wildlife species will be maintained or enhanced. The emphasis for habitat maintenance and development will be on present and potential habitat for sensitive, threatened and/or endangered species, nesting waterfowl, crucial wildlife winter ranges, non-game habitat and fisheries **(JVP, Standards and Guidelines)**.

- **Prairie Dog Management:** Prairie dog towns will be maintained or managed based on the values or problems encountered **(JVP)**.

- **Elk and Bighorn Sheep Management:** Habitat will be provided for elk in the Musselshell Breaks consistent with the MT Dept of FWP Elk Management Plan. **(JVP)**.

- **Recreation:** The recreational quality of public land and resources will be maintained and/or enhanced to ensure enjoyable recreational experiences. Recreation emphasis will be to develop and maintain opportunities for dispersed recreational activities such as hunting, scenic and wildlife viewing and driving for pleasure.

- **Off-Highway Vehicle Use:** BLM will restrict OHV use on BLM land year-long or seasonally to designated roads and trails or close specific areas to protect resource values, i.e., protect vegetation and soils to maintain watersheds and water quality, reduce user conflicts, and reduce harassment of wildlife and provide habitat security. **(JVP)**.

- **Visual Resource Management:** Activities will be managed to comply with VRM policies **(JVP)**.

- **Cultural:** Cultural resources will be properly managed through a systematic program of identification and evaluation. The level of conflict between cultural resources and other land and resource uses will be reduced in compliance with existing laws/regulations **(JVP)**.

- **Fire Management:** Fire will managed in the manner most cost effective and responsive to resource management objectives **(JVP)**.

  Prescribed fire will be utilized only under specific conditions and may be administered on an individual basis in grassland, sagebrush and/or conifer types to improve wildlife habitat and vegetation production **(JVP)**.

Intensive suppression of wildfire will be applied to areas with high resource values, improvements, recreation sites, administrative sites, sagebrush and juniper, fire sensitive woody riparian species, and/or

cultural values and may also be used to prevent fire from spreading to adjoining private property and structures **(JVP)**.

Conditional suppression will be applied to areas with low resource values or to areas not warranting intensive suppression actions and costs. Conditional suppression actions will be used in grass/shrub fuel types, Missouri Breaks fuel types and mountain timber fuel types **(JVP)**.

- **Forest Management:** Minor forest products may be harvested from the Breaks on a selected sustained yield basis with wildlife habitat objectives in mind **(JVP)**.

- **Lands:** Resource values will be protected or enhanced when considering applications or requests for Rights of Ways, leases and permits. Acquisitions will be pursued as opportunities arise through exchange or purchase with willing proponents and/or sellers. **(JVP)**

- **Access to BLM Land:** Access will be pursued to BLM land where no legal public access exists or where additional access to major blocks of BLM land is needed. **(JVP)**

- **Signing:** Appropriate signs and posters will be used to promote safety and convenience for visitors and users, define boundaries, identify management practices, provide information about geographic and historic features and protect vulnerable land areas and resources from misuse. **(JVP)**

Snowies-Little Belts EA: Appendix M - Standards (Determiniations by Allotment)

Allotment Name	Allotment No.	Identification Number (In order to adhere to the Privacy Act, the names of permittees will not be used in this table. Each permittee was informed, by letter, of which number refers to his/her allotment(s)).	Standard 1 (uplands)	Standard 2 (riparian)	Standard 3 (h2o qual)	Standard 5 (biodiv.)	Cause (by standard)
South Elk Creek	02802	001	meeting	n/a	n/a	meeting	
Luther	20054	002	meeting	n/a	n/a	not meeting	5, noxious weeds
Nebel Coulee	09665	003	not meeting	meeting	meeting	not meeting	1, 5 Non-native veg, noxious weeds
Harlow Ranch	10038	004	not meeting	n/a	n/a	not meeting	1,5 non-native veg
South Forest Grove	12604	005	not meeting	n/a	n/a	not meeting	1,5 non-native veg
Buck Ridge	02619	006	meeting	not meeting	meeting	not meeting	2, 5 inadequate spring devp., weeds
Surenough Creek	12607	007	not meeting	not meeting	meeting	not meeting	1,2,5 Livestock
Bear Creek Headwaters	02817	008	meeting	n/a	n/a	meeting	
Vinger Place	02526	009	meeting	n/a	n/a	meeting	
Moulton	02679	010	not meeting	n/a	n/a	not meeting	1,5 livestock, non-native veg
Twin Sisters	09695	011	meeting	not meeting	meeting	meeting	2, livestock (spring)
Single	02618	012	not meeting	meeting	meeting	not meeting	1,5 crested wheatgrass, noxious weeds
Finkbeiner EOU	02699	013	meeting	n/a	n/a	meeting	
Butler Coulee	02652	014	meeting	n/a	n/a	meeting	
Athern Creek	02814	015	meeting	n/a	n/a	not meeting	5, noxious weeds
Blacktail Hills	09834	016	meeting	meeting	not meeting	meeting	Wolf Cr. MDEQ impaired
Dinger	02809	017	not meeting	n/a	n/a	not meeting	1,5 non-native veg, noxious weeds
Beaver Ball Creek	02810	018	meeting	n/a	n/a	not meeting	5, noxious weeds
Browns Canyon	09711	019	meeting	n/a	n/a	meeting	
Atherton Creek	02622	020	meeting	n/a	n/a	not meeting	5, noxious weeds
Blacktail Creek	02811	021	meeting	n/a	n/a	not meeting	5, noxious weeds
Forest Grove	02651	022	meeting	meeting	meeting	meeting	
McCartney Creek	02812	023	meeting	n/a	n/a	meeting	
Grass Range	02626	024	not meeting	n/a	n/a	not meeting	1,5 livestock
Hansen Coulee	09793	025	meeting	n/a	n/a	meeting	
Martin Creek	09859	026	not meeting	n/a	n/a	meeting	1, livestock (increaser species, clubmoss)
Harlow	19730	027	meeting	n/a	n/a	not meeting	5, noxious weeds
Green Pole	20049	028	meeting	n/a	n/a	meeting	
Beckett	02518	029	meeting	n/a	n/a	not meeting	5, noxious weeds
Pulp 40	02527	030	not meeting	n/a	n/a	not meeting	1,5 noxious weeds, annuals
Cache Creek	09750	031	meeting	not meeting	meeting	meeting	2, livestock
Willow Creek	02807	032	meeting	n/a	n/a	not meeting	5, noxious weeds
Pronghorn Ranch	02826	033	not meeting	n/a	n/a	not meeting	1,5 noxious weeds
Flying O	09738	034	meeting	n/a	n/a	meeting	
Willow Creek Headwaters	19737	035	meeting	n/a	n/a	meeting	permittee noted whitetop on allotment
Six Diamond	19824	036	meeting	n/a	n/a	meeting	
Springs Lease	02534	037	not meeting	n/a	n/a	not meeting	1,5 noxious weeds
Many Springs	02816	038	not meeting	n/a	n/a	not meeting	1,5 noxious weeds
Mary's Knoll	09751	039	meeting	n/a	n/a	not meeting	5, dense clubmoss
Lehfeldt Ind.	02818	040	meeting	meeting	meeting	meeting	
South Fork Ranch	02820	041	meeting	n/a	n/a	meeting	
Potter Creek	02831	042	meeting	n/a	n/a	meeting	
Alkali Creek	02645	043	not meeting	n/a	n/a	not meeting	1,5 livestock & noxious weeds
Lindquist	02643	044	not meeting	n/a	n/a	not meeting	1,5 crested wheatgrass
French	12625	045	not meeting	n/a	n/a	not meeting	1,5 crested wheatgrass
Piper	02531	046	not meeting	n/a	n/a	not meeting	1,5, non-native species, noxious weeds
Dry Fork Creek	02530	047	meeting	n/a	n/a	not meeting	5, noxious weeds
Rose Canyon	02672	048	not meeting	n/a	n/a	not meeting	1,5 crested wheatgrass
Meadors Bench	02648	049	meeting	n/a	n/a	not meeting	5, noxious weeds
Running Wolf Creek	09775	050	meeting	n/a	n/a	meeting	
Horsethief Ridge	02629	051	not meeting	n/a	n/a	not meeting	1,5 (1 significant progress) 5 noxious weeds

Not meeting – livestock caused

Not meeting – not livestock caused

Snowies-Little Belts EA: Appendix M - Standards (Determiniations by Allotment)

Horsethief Coulee	02634	052	not meeting	n/a	n/a	not meeting	1,5 historical livestock use
Dickson Coulee	02532	053	meeting	n/a	n/a	meeting	
N Bar	02821	054	not meeting	n/a	n/a	not meeting	1,5 crested wheatgrass, noxious weeds
South Beckett	02829	055	n/a	n/a	n/a	not meeting	5, noxious weeds
West Fork Beaver Cr.	10062	056	not meeting	n/a	n/a	meeting	1, non-native veg species
Half Moon	02827	057	not meeting	not meeting	not meeting	not meeting	2,3 livestock; 1,5 non-native veg & weeds
South Fork Flatwillow	02819	058	n/a	meeting	meeting	meeting	
Carl's Spring	02657	059	not meeting	n/a	n/a	not meeting	1,5 crested wheatgrass, noxious weeds
C & H	20098	060	meeting	meeting	meeting	meeting	
Buffalo	09790	061	meeting	n/a	n/a	meeting	
Pagil Gulch	09795	062	meeting	n/a	n/a	meeting	
Bar Diamond	02825	063	meeting	n/a	n/a	meeting	
Muley Coulee	02823	064	meeting	n/a	n/a	not meeting	5, noxious weeds
Bald Butte	12806	065	not meeting	not meeting	meeting	not meeting	2, livestock; 1,5 non-native veg & weeds
Rouns Place	02520	066	n/a	n/a	n/a	meeting	
Shannon Creek	09813	067	meeting	n/a	n/a	not meeting	5, noxious weeds
Sun Creek	09815	068	meeting	n/a	n/a	meeting	
Elk Creek	02830	069	meeting	n/a	n/a	not meeting	5, noxious weeds
Shadow Mtn.	02605	070	meeting	meeting	meeting	not meeting	5, noxious weeds
Saure Place	09817	071	meeting	n/a	n/a	meeting	
Wolf Butte	09819	072	not meeting	n/a	n/a	not meeting	1,5 livestock & noxious weeds
No Go	02671	073	meeting	n/a	n/a	not meeting	5, noxious weeds
East Fork Beaver Cr.	20001	074	not meeting	n/a	n/a	not meeting	1,5 noxious weeds
Surprise Creek	09829	075	meeting	n/a	n/a	meeting	
North Oswick	02675	076	meeting	n/a	n/a	meeting	
Sage Creek	09745	077	not meeting	n/a	n/a	not meeting	1,5 livestock
Barber	09862	078	meeting	n/a	n/a	meeting	
Three Bar	20035	079	not meeting	n/a	n/a	not meeting	1,5 non-native veg species & noxious weeds
Heble	02632	080	not meeting	n/a	n/a	not meeting	1,5 livestock, non-native veg, noxious weeds
North McDonald	12612	081	meeting	meeting	not meeting	not meeting	3,5 McDonald cr. MDEQ impaired, weeds

Not meeting – livestock caused

Not meeting – not livestock caused

Appendix N
Drought Policy

Bureau of Land Management
Policy for Administering Public Land Grazing
In
Montana, North and South Dakota
During Periods of Drought

Introduction

Livestock grazing is but one of the activities that BLM manages on the public lands. Drought stresses all resources: vegetation, wildlife, soils,watershed, and timber as well as livestock. Unfortunately, only livestock and human activity can be readily controlled or restricted from access to public lands. The other resources are either immobile or not readily controlled. This policy deals with livestock use and implements provisions of existing laws and regulations. Other uses that may require special consideration during severe drought may be addressed in separate policy statements or actions.

Vegetation cover is one part of productive rangelands because it strongly affects soil moisture. When drought reduces the total forage produced and the normal residual vegetation (standing and down plant material) is used by livestock, insects, and other grazing animals; soil moisture and temperature are affected. Soil temperatures are lowered by the residual cover during warm periods and are raised by the residual cover during cold periods. Moisture intake and penetration into soils is keyed to the amount and type of residual cover found on a soil/ecological site. In fact, with little or no residual cover on rangelands, moisture events will likely produce little effective penetration into the soil. Residual cover provides protection for soils, vegetation, wildlife, watersheds, and for the many other resources dependent upon good vegetation and livestock management.

Authority

This document implements provisions of:

- Taylor Grazing Act of June 28, 1934, as amended;
- Federal Land Policy and Management Act of 1976, as amended;
- Public Rangelands Improvement Act of 1978;
- Regulations in 43 code of Federal Regulations, Group 4100(43 CFR 4100).

Policy

It is the policy and objective of the BLM to: manage the public lands and authorize livestock grazing under the principles of multiple use and sustained yield; provide for the orderly administration of grazing by domestic livestock on the public lands; and provide for the conservation and protection of soil and vegetation resources.

Accomplishment of these objectives becomes more difficult during periods of range depletion caused by drought. Normal grazing schedules and livestock management practices may have to be modified. Additional coordination, consultation, and data exchange between livestock operators and Bureau personnel will be required, over and above that level normally practiced. Appropriate state agencies and other interested parties will have to be involved at appropriate times and kept informed at all time.

The principal thrust of the policy and procedures in this document, and other regulatory and procedural requirements not repeated here, will be for the livestock operator and BLM to jointly develop strategies for livestock use on public land during and following drought. Strategies selected should be those that best protect rangeland resources while minimizing impacts on the operator to the extent possible. To that end, every degree of flexibility provided by the laws and implementing regulations will be available to authorized officers of the Bureau.

Voluntary adjustments in livestock use of public lands should be sought at the earliest date it becomes apparent that "normal" grazing schedules cannot be followed; or, if followed, would result in degradation of long-term resource productivity. The earlier an agreement can be reached or a decision is made that "normal" grazing schedules cannot be followed; the more opportunities livestock operators will have to consider alternatives to minimize impacts on his or her operation. Waiting until the last minute before scheduled turnout to make a determination or decision will reduce the options available to both the operator and the Bureau.

In keeping with established Bureau policies and priorities, efforts to manage public rangeland under drought conditions will be directed first to allotments with resource concerns such as "I" category allotments. Specific allotments in the "M" and "C" categories can also be considered high priority when resource values or conditions so require. Regardless of the category assigned to an allotment, operators should be aware of the procedures and flexibilities available for dealing with drought condition.

BLM fully expects that the vast majority of livestock operators will recognize the need for and voluntarily make adjustments in livestock use of public lands if the extended drought continues. These adjustments will be recognized during the permitting process and grazing bills will be adjusted accordingly. In those situations where agreement cannot be reached, authorized officers of the Bureau have the final responsibility and accountability for ensuring that public lands are not permanently damaged by improper use.

If issuance of a decision concerning livestock use becomes necessary, the procedure specified in 43 CFR 4160 will be followed. Briefly, this procedure calls for a proposed decision, setting forth the proposed action.

Proposed decisions are issued by the Field Office Manager. The permittee then has 15 days in which to protest the proposed decision and set forth reasons why he or she believes the proposed decision is in error. The authorized officer then reviews the proposed decision in light of the protestant's statement of reasons and any other information that may bear on the case. At the conclusion of the review, a final decision is prepared and served on appropriate parties. Any person whose interest is adversely affected by a final decision may appeal the decision for the purpose of a hearing before an Administrative Law Judge.

It should be further understood that final decisions can be modified or rescinded, if the conditions that existed when the decision was issued no longer exist. If significant amounts of precipitation occur during the growing season, producing significant changes in the amount of moisture available to plants, this may cause decisions to be reconsidered. The consultation and coordination process will be used to obtain livestock operator involvement in such cases.

If a proposed decision is not protested, during the 15-day period, it becomes the final decision of the authorized officer without further action.

In cases such as the need for temporary changes caused by conditions such as drought, final decisions may become effective upon issuance (43 CFR 4160.3(f) 4110.3-2(a)).

Procedures

The following guidelines and procedures are intended to provide the data, flexibility and direction for public land managers and livestock operators to develop strategies and make decisions during drought conditions. Consultation
and coordination with livestock operators and other interested parties will be carried out during all procedural steps.

I. Winter Assessment (Mid-November - January)

A. Analysis

1. Review past season's monitoring results. Analyze plant growth, actual use, occurrence of insect infestations, and especially the use of "rest" pastures.

2. Analyze precipitation records and distribution patterns from the National Weather Service, local cooperators, BLM, and other agencies. Tabulate moisture departures from normal levels and timing of precipitation in relation to past years' growing season.

3. In "I" allotments where there is concern because there is less residual cover, effective precipitation well below normal, rest pastures already used, etc., measure soil moisture in representative areas. Where available, use RAWS/OMNI sites, existing soil moisture stations, etc. Additional soil moisture samples are to be taken at the rooting depth of major forage species in representative areas using techniques found in agency manuals/handbooks and professional literature and experienced personnel.

B. Action

1. Where it is apparent resource degradation might occur if drought continues, begin to notify operators through letters and news releases that the coming year's livestock grazing might be affected.

2. Set up range user meetings in affected communities to discuss available information and possible actions to prevent range resource damage.

3. Encourage operators to make needed changes in their grazing schedules, including applying for non-use. If non-use is taken then activated, BLM will waive the $10 service fee in accordance with 43 CFR 4130.8.3. Authorized officers may issue refund or credit of grazing fees under 43 CFR 4130.8-2(b).

4. Meet with individual operators when available information indicates a particular allotment is affected by severe drought condition. Attempt to reach agreement on alternative grazing strategies if conditions do not change.

II. Late Winter and Spring Assessment (February - April)

A. Analysis

1. Review precipitation and soil moisture data for winter and early spring.

2. Review the effects of winter grazing use; snow pack influence for stock water, soil temperatures, etc-

3. Continue soil moisture measurements where problems are apparent or in areas of concern. Measurements at rooting depth to measure available water for plants will be especially important during this period.

4. Assess availability of livestock water, in consultation with permittees.

B. Action

1. If drought conditions are continuing, or becoming more severe, follow up winter letters and news releases with more releases and letters that update the situation. Conduct meetings with Grazing and District Advisory Boards. Meetings are encouraged with other concerned individuals and agencies as a part of the grazing management strategy.

2. Contact remaining operators who have not voluntarily made needed changes. Where you believe you have enough information to indicate an allotment is in severe drought condition, meet with the operator to review and explain the information you have and attempt to reach agreement on a grazing strategy. If an agreement cannot be reached and, especially if the allotment has a relatively early turnout date, issue a proposed decision. The extent of use adjustment contained in this decision (delayed turnout, reduction in numbers or duration, total exclusion, etc.) will depend on your assessment of all the factors involved. These include past grazing use, range condition, residual cover, precipitation, soil moisture and the land use objectives for the allotment.

3. If soil moisture is below the middle line on Figure 1, delay turnout until key forage plants have grown to approximately one-half their normal height (for most of our native grass species about 6 inches).

III. Continuing Assessment (throughout grazing season)

A. Analysis

1. Continue to closely monitor precipitation in "I" allotments and areas of concern. Attention is directed to determining effective (soil moisture) growing season precipitation.

2. Closely monitor utilization of key plant species and key areas. Remember to consider management objectives when selecting key species and areas.

3. Continue to measure soil moisture in "I" allotments and areas of concern.

4. Monitor factors other than livestock grazing, such as insect infestations, congregations of wildlife, availability of livestock water, etc.

B. Action

1. If soil moisture drops below the middle line on Figure 1 and utilization has reached objective levels or a maximum of 30 percent utilization has occurred, livestock are to be removed.

2. If soil moisture remains unacceptable (below the bottom line in Figure 1) during most of the spring and early summer with little or no growth in primary forage species for livestock (i.e., range readiness has not been reached), advise affected permittees that fall and winter ranges may not be available for use during the current year. Also advise that production in subsequent years may be affected if plant basal areas and density have been severely reduced.

3. For those permittees in "I", allotments with AMPs having available standing forage in rest pastures or fall or winter use pastures, advise the permittees that livestock must be removed from public lands; when consumption of standing forage has reached objective levels or a maximum of 50 percent.

4. Adjust monitoring plans to collect data concerning plant death, loss of basal area, density, and yield for analysis and use in later years.

IV. Other Considerations

1. The use of salt, mineral, and certain mineral supplements as necessary to overcome natural shortages of minerals in rangeland forage may be authorized as necessary to provide for proper range management(4130.3-2(c)).

2. Maintenance feeding on public lands is not authorized except under very unusual short-term conditions and by permit only. Maintenance feeding during drought conditions is specifically excluded.

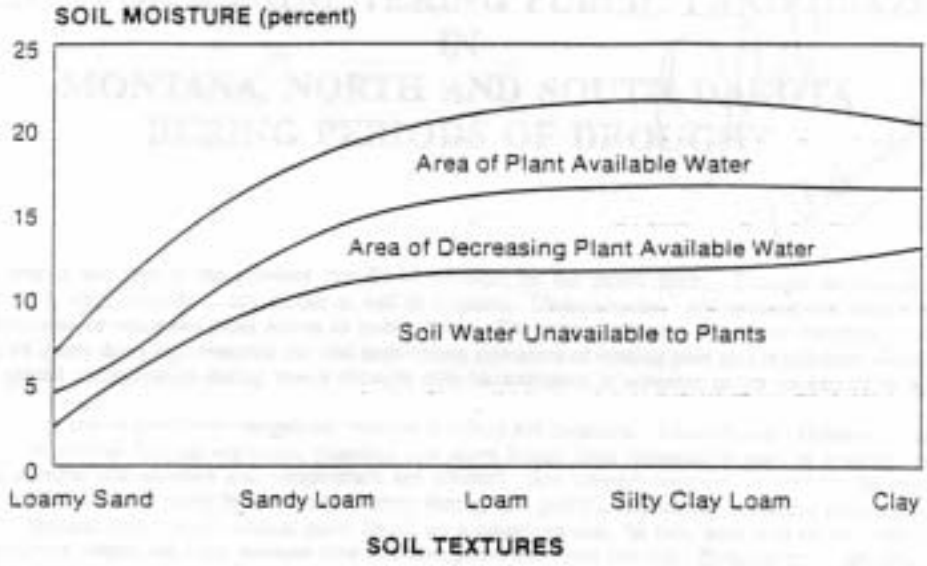
3. Applications for a maintenance feeding permit due to poor forage conditions associated with drought should be denied and livestock removed or not allowed.

Definitions:

Available water. That portion of water in a soil that plants can extract from the soil. Generally measured per unit volume of soil.
Basal area (range). The area of ground surface covered by the stem or stems of a range plant, usually measured 1 inch above the soil in contrast to the full spread of the foliage.
Density. (1) The number of individual plants per unit area; (2)Refers to the relative closeness of plants to one another.
Flexibility. The ability to alter the grazing management plan to meet changing conditions.
Flushing. Feeding female animals a concentrated feed shortly before and during the breeding period for the purpose of stimulating ovulation.
Growing season. In temperate climates, that portion of the year when temperature and moisture are usually most favorable for plant growth.
Key species. (1) Forage species whose use serves as our indicator to the use of associated species; (2) Those species which must, because of their importance, be considered in the management program.
Maintenance feeding. Supplying feed to range animals when available forage is too limited to meet their minimum daily requirement (examples are cubes, pellets, baled or loose hay).
Phenology. The study of periodic biological phenomenon such as flowering, seeding, etc., especially as related to climate.
Range readiness. The defined stage of plant growth at which grazing may begin under a specific management plan without permanent damage to vegetation or soil.

Supplemental feed. A feed which supplements the forage available from the public lands and is provided to improve livestock nutrition and good animal husbandry and rangeland management practices. An example is salt or mineral block. Creep feeders to supplement feed for calves and supplemental feeding to "flush" cattle and sheep for breeding may be authorized on public lands when compatible with the resource management objectives.

FIGURE 1
Plant Available Water Capacities



When using Figure 1, the following information should be kept in mind.

a. Soil moisture is measured the depth of plant roots or to a root limiting layer. It will vary by plant(s) and soil type.

b. Soluble salts, gravel and heavy clay will decrease plant available water capacity.

c. Organic matter, good soil structure will increase plant available water capacity (The capacity increases about 1 percent for each 1 percent of organic matter).

d. Soils with water restricting layers like naturally compact subsoil, shallow bedrock or stratification can increase plant available water capacity of the overlying soil layers.

e. Soils that are deep, medium textured and uniform can have decreased plant available water but allow for deeper rooting.

Figure 1 was developed from research done in the 1980s in northern and eastern Montana. Published research was reviewed by soil scientists, range scientists and plant physiologists. These data are currently found in USDA, NRCS soil survey manuals, engineering manuals, irrigation guides, ARS and University research. It is tested and well accepted information.

The lines on the graph represent the relationship of various soil texture and soil water available to plants common to the Northern Gt. Plains and nearby Rocky Mountains.

For site specific application the lines should be adjusted to reflect the needs of key forage species on a given soil in area of interest. For example, a western wheat plant is capable of extracting more soil moisture from a silty clay soil than is a bluegrass plant.

The area above the top line is the amount of soil water in excess of what a given soil type can hold. This soil water will likely move down, through and
out of the soil root zone and possibly become ground water.
The area between the middle and top lines represents the soil moisture contents which most plants need for normal growth.

The area below the bottom line indicates soil moisture that is not available to the plant; e.g., if there is less than 4 percent moisture in a loamy sand soil within the root depth of the plant, it will not grow.

The area between the bottom and middle lines indicates a moisture level that is marginal to plant growth. The plant is becoming stressed at this point and, if further stressed by removal or damage to the top growth, it will begin to lose vigor, roots and thus its ability to grow. It is not unusual to reach this moisture level during late summer in much of Montana and other semi-arid areas.

Appendix O
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