

**United States Department of the Interior
Bureau of Land Management**

Environmental Assessment DOI-BLM-ID-B010-2012-0013-EA

**Four Rivers Field Office
McPherson Individual Allotment Grazing Permit Renewal
Environmental Assessment**

U.S. Department of the Interior
Bureau of Land Management
Boise District
Four Rivers Field Office
3948 Development Avenue
Boise, ID 83705



**Environmental Assessment # DOI-BLM-ID-B011-2012-0013-EA
Four Rivers Field Office McPherson Individual Allotment**

Table of Contents

1.0	Introduction.....	1
1.1	Need for and Purpose of Action.....	1
1.2	Summary of Proposed Action	2
1.3	Location and Setting.....	2
1.4	Conformance with Applicable Land Use Plan.....	2
1.5	Relationship to Statutes, Regulations, and Other Requirements.....	2
1.6	Scoping and Development of Issues	5
2.0	Description of the Alternatives	6
2.1	Alternative Development Process	6
2.2	Alternatives Considered But Not Analyzed in Detail	6
2.3	Description of Permittee Application and Alternatives	6
2.3.1	Alternative A – Extended Rest	7
2.3.2	Alternative B – Continue Current Use.....	7
2.3.3	Alternative C - Permittee Application	7
2.3.4	Alternative D – BLM Modified-Permittee Proposal	8
2.3.5	Alternative E – BLM Fall/Winter Proposal	9
3.0	Affected Environment and Environmental Consequences	9
3.1	Uplands (Watershed/Vegetation)	11
3.1.1	Affected Environment – Uplands (Watershed/Vegetation).....	11
3.1.2	Environmental Consequences – Uplands (Watershed/Vegetation)	14
3.1.2.1	General Discussion of Impacts	14
3.1.2.2	Alternative A	17
3.1.2.3	Alternative B.....	18
3.1.2.4	Alternative C.....	18
3.1.2.5	Alternative D	19
3.1.2.6	Alternative E.....	19
3.1.3	Cumulative Impacts – Upland Vegetation.....	19
3.1.3.1	Scope of Analysis	19
3.1.3.2	Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions.....	20
3.1.3.3	Cumulative Impacts - Alternatives A-E	20
3.2	Special Status Plants.....	20
3.2.1	Affected Environment – Special Status Plants	20
3.2.2	Environmental Consequences – Special Status Plants.....	21
3.2.2.1	General Discussion of Impacts	21
3.2.2.2	Alternative A	22
3.2.2.3	Alternative B.....	22
3.2.2.4	Alternative C.....	23
3.2.2.5	Alternative D	23
3.2.2.6	Alternative E.....	23
3.2.3	Cumulative Impacts– Special Status Plants.....	23

3.2.3.1	Scope of Analysis	23
3.2.3.2	Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions.....	24
3.2.3.3	Cumulative Impacts - Alternatives A-E	24
3.3	Wildlife.....	24
3.3.1	Affected Environment – Wildlife and Special Status Species.....	24
3.3.2	Environmental Consequences – Wildlife and Special Status Species	25
3.3.2.1	General Discussion of Impacts	25
3.3.2.2	Alternative A	26
3.3.2.3	Alternative B.....	26
3.3.2.4	Alternative C.....	26
3.3.2.5	Alternative D	26
3.3.2.6	Alternative E.....	26
3.3.3	Cumulative Impacts – Wildlife and Special Status Species	27
3.3.3.1	Scope of Analysis	27
3.3.3.2	Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions.....	27
3.3.3.3	Cumulative Impacts - Alternatives A-E	27
3.4	Recreation.....	27
3.4.1	Affected Environment – Recreation	27
3.4.2	Environmental Consequences – Recreation.....	28
3.4.2.1	General Discussion of Impacts	28
3.4.2.2	Alternative A	29
3.4.2.3	Alternative B.....	29
3.4.2.4	Alternative C.....	29
3.4.2.5	Alternative D	29
3.4.2.6	Alternative E.....	29
3.4.3	Cumulative Impacts – Recreation.....	29
3.4.3.1	Scope of Analysis	29
3.4.3.2	Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions.....	29
3.4.3.3	Cumulative Impacts - Alternative A-E.....	30
3.5	Visual Resource Management.....	30
3.5.1	Affected Environment – Visual Resources.....	30
3.5.2	Environmental Consequences – Visual Resources	31
3.5.2.1	Alternative A	31
3.5.2.2	Alternative B.....	31
3.5.2.3	Alternative C.....	31
3.5.2.4	Alternative D	31
3.5.2.5	Alternative E.....	31
3.5.3	Cumulative Impacts – Visual Resources	31
3.6	Cultural and Paleontological Resources.....	32
3.6.1	Affected Environment – Cultural and Paleontological Resources	32
3.6.2	Environmental Consequences – Cultural and Paleontological Resources.....	32
3.6.2.1	General Discussion of Impacts	32
3.6.2.2	Alternative A	33

3.6.2.3	Alternative B.....	33
3.6.2.4	Alternative C.....	33
3.6.2.5	Alternative D	33
3.6.2.6	Alternative E.....	33
3.6.3	Cumulative Impacts – Cultural and Paleontological Resources	33
3.6.3.1	Scope of Analysis	33
3.6.3.2	Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions.....	33
3.6.3.3	Alternative A	34
3.6.3.4	Alternatives B-E	34
3.7	Livestock Grazing	34
3.7.1	Affected Environment – Livestock Management/Social and Economic	34
3.7.2	Environmental Consequences –Livestock Management/Social and Economic	35
3.7.2.1	Alternative A	35
3.7.2.2	Alternative B.....	35
3.7.2.3	Alternative C.....	35
3.7.2.4	Alternative D	36
3.7.2.5	Alternative E.....	36
3.7.3	Cumulative Impacts – Livestock Management/Social and Economic	36
4.0	Consultation and Coordination	37
4.1	List of Preparers	37
4.2	List of Agencies, Organizations, and Individuals Consulted	37
4.3	Public Participation	37
5.0	Literature Cited	38
6.0	Appendices.....	40

1.0 Introduction

1.1 Need for and Purpose of Action

The Cascade Resource Management Plan (RMP) identifies the McPherson Individual Allotment as available for domestic livestock grazing. Where consistent with the goals and objectives of RMP's, and Idaho Standards and Guidelines for Grazing Management (1997), it is BLM policy to authorize livestock grazing to qualified operators. The purpose of the proposed action is to authorize livestock grazing consistent with BLM policy and in a manner that maintains or improves the above allotments resource conditions and achieves the objectives described in the RMP. The analysis and authorizations are needed here and now because:

1. On February 28, 2012, Mr. Hanson's grazing permit on the McPherson Individual Allotment expired. On March 30, 2012, Mr. Hanson submitted an application for renewal of the grazing permit. Slickspot peppergrass (*Lepidium papilliferum*), a threatened species under the Endangered Species Act (ESA), has been identified in the allotment. The element occurrence (EO), management area (2C), and associated occupied habitat were not identified until 2005, one year after grazing permits with known occupied habitat were modified to include terms and conditions based on a 2003 Candidate Conservation Agreement. Because new information, including the presence of proposed critical habitat, and management concerns have been identified, BLM must fully evaluate and process the grazing permit in light of these findings/listings.
2. A Rangeland Health Assessment of the allotment was conducted on April 10, 2012. The Evaluations and Determinations for Achieving Idaho's Standards for Rangeland Health (Standards) and Conformance with the Guidelines for Livestock Grazing Management (Guidelines) (USDI 1997) indicated that the allotment is not meeting one or more standards due to factors other than current livestock management (Table 1).

Table 1. Summary of applicable Rangeland Health Standards for the McPherson Individual Allotment, Ada County, Idaho.

Allotment		Rangeland Health Standards ¹							
Number	Name	1	2	3	4	5	6	7	8
00196	McPherson Individual	M	n/a	n/a	O	n/a	M	n/a	O

¹ Standard 1: Watersheds; Standard 2: Riparian Areas and Wetlands; Standard 3: Stream Channel/Floodplain; Standard 4: Native Plant Communities; Standard 5: Seedings; Standard 6: Exotic Plant Communities, other than Seedings; Standard 7: Water Quality; Standard 8: T&E and BLM special status plant, wildlife, and/or fish species
M = meeting standard; O = not meeting standard, factors other than current livestock management practices are significant factors (e.g., fire, invasive plants, historic grazing practices, off-road vehicles); n/a = not applicable.

The action alternatives should meet the following objectives:

- maintain resource conditions where they are meeting Standards;
- make progress toward meeting Standards where resource conditions are not meeting Standards and livestock use is a contributing factor;
- meet Guidelines and BLM policy; and
- implement appropriate conservation measures identified in the 2003 Candidate Conservation Agreement for Slickspot Peppergrass (2003 CCA, GOSC et al. 2003) and

2009 Conservation Agreement for Slickspot Peppergrass (2009 CA, USDI and USFWS 2009).

1.2 Summary of Proposed Action

The BLM would issue a 10-year livestock grazing permit authorizing 34 animal unit months (AUMs) of cattle use in the McPherson Individual Allotment. A two-pasture rest/rotation grazing system would be implemented. Terms and conditions associated with slickspot peppergrass would be applied. The Big Fire ESR fence would become a permanent pasture fence, approximately 0.70 miles of new allotment boundary fencing would be constructed, and 0.12 miles of existing fencing would be removed.

1.3 Location and Setting

The allotment is located approximately 3.5 miles northwest of Eagle, Idaho (Map 1). The area is characterized by gently rolling topography with elevations ranging from approximately 2,600-2,800 feet. The allotment is comprised of 235 acres of BLM-administered land and 41 acres of private lands.

1.4 Conformance with Applicable Land Use Plan

The 1988 Cascade Resource Management Plan (RMP) is the applicable land use plan. The proposed action to renew the livestock grazing permit would be in conformance with the following RMP objectives:

Livestock Resources

- Manage 449,059 acres of rangeland to provide forage for livestock and wild horses

Vegetative Resources

- Protect candidate or special status plants

Wildlife Resources

- Manage 275,250 acres of deer habitat and provide forage to support proposed populations of these animals
- Maintain existing habitats for other wildlife species

The allotment is categorized as being in the Intensive (I) management category. Allotments in this category have been identified for improvement. Grazing systems (e.g., rest rotation, deferred rotation, or seasonal grazing systems) will be developed during the permit renewal process. The overall RMP objective is to improve soil, vegetation, watershed, wildlife habitat, and other resource values and conditions and to provide vegetation for livestock, wildlife, wild horses, and other consumptive and non-consumptive uses (Rangeland Program Summary Objectives pg. 1).

1.5 Relationship to Statutes, Regulations, and Other Requirements

Federal regulations authorize BLM to issue grazing permits to qualified applicants (43 CFR 4110 and 4130). Permittees may graze livestock on public lands that are designated as available for livestock grazing through the RMP. In addition, the following laws, acts, manuals, policies, and regulations provide the foundation for managing livestock use on BLM-administered lands.

Livestock Management

The Taylor Grazing Act (TGA) of 1934 as amended: Provides for the orderly use of public land. The goals of the TGA were to stop injury to the public grazing lands by preventing overgrazing and soil deterioration; to provide for their orderly use, improvement, and development; to stabilize the livestock industry dependent upon the public range; and for other purposes.

The Federal Land Policy and Management Act (FLPMA) of 1976: Authorized the following: Inventory and identification of BLM-administered lands, land use planning, public involvement and participation. FLPMA also provides BLM with broad management authority under principles of multiple use and sustained yield. Land use planning resulted in the preparation of the Cascade RMP.

The Public Rangelands Improvement Act (PRIA) of 1978: Mandates that livestock grazing be managed to improve range condition and maintain the highest level of productivity.

Title 43 CFR, Subpart 4100 – Grazing Administration, Exclusive of Alaska: The regulations embody the Acts, as amended, listed above. Specifically, 43 CFR 4180.2 is the regulatory requirement that implements Idaho’s Standards for Rangeland Health and Guidelines for Livestock Grazing Management, 1997 (USDI 1997).

Fish and Wildlife

Endangered Species Act (ESA) of 1973 as amended (16 USC 1531): Section 7 of the ESA outlines the procedure for federal interagency cooperation to conserve federally listed species and their designated habitats. Section 7(a) (2) of the ESA states that each federal agency shall, in consultation with Secretary, insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of their habitats. The U.S. Fish and Wildlife Service (USFWS) utilizes these assessments to make a jeopardy/no jeopardy determination for listed species and a destruction/adverse modification determination for critical habitat within a Biological Opinion (BO) that is provided to the action agency (BLM).

Alternative D was incorporated into a Biological Assessment (BA) to evaluate the effects of the actions on slickspot peppergrass and its habitat. The BA determined that the proposed action “may affect,” and is “likely to adversely affect” slickspot peppergrass and slickspot peppergrass habitat, and proposed critical habitat in the action area, and requested a BO for the affects to the species and habitat, and concurrence on the effects to proposed critical habitat. The BA was transmitted to the USFWS on May 21, 2012. While no BO has been received from the USFWS to date, under Section 7(d) of the ESA, the action agency may authorize an action that may affect listed species after initiation of consultation so long as the action agency makes no “irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2).” Because the BLM can, at the discretion of the authorized officer, change grazing permit terms and conditions or suspend use found to cause damage to the public lands or resources, the proposed action does not foreclose the implementation of further conservation measures to protect slickspot peppergrass or its habitat.

Special Status Species Management Manual for the Bureau of Land Management (BLM Manual 6840): National policy directs BLM State Directors to designate sensitive species in cooperation with the state fish and wildlife agency. This manual establishes policy for management of species listed or proposed for listing pursuant to the ESA and Bureau sensitive species which are found on BLM-administered lands to conserve sensitive species, including their habitats, and to mitigate adverse impacts. Where relevant to the activities associated with this project, effects to special status species are analyzed in this Environmental Assessment (EA).

Migratory Bird Treaty Act, Executive Order 13186, and BLM Memorandum of Understanding WO-230-2010-04 (between BLM and US Fish and Wildlife Service [USFWS]): Federal agencies are required to evaluate the effects of proposed actions on migratory birds (including eagles) pursuant to the *National Environmental Policy Act of 1969* (NEPA) “or other established environmental review process;” restore and enhance the habitat of migratory birds, as practicable; identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations; and, with respect to those actions so identified, the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the Service. Effects to migratory birds are analyzed in this EA.

Cultural Resources

BLM is required to consult with Native American tribes to “help assure (1) that federally recognized tribal governments and Native American individuals, whose traditional uses of public land might be affected by a proposed action, will have sufficient opportunity to contribute to the decision, and (2) that the decision maker will give tribal concerns proper consideration” (U.S. Department of the Interior, *BLM Manual Handbook H-8120-1*). Tribal coordination and consultation responsibilities are implemented under laws and executive orders that are specific to cultural resources which are referred to as “cultural resource authorities,” and under regulations that are not specific which are termed “general authorities.” Cultural resource authorities include: the *National Historic Preservation Act of 1966*, as amended (NHPA); the *Archaeological Resources Protection Act of 1979*; and the *Native American Graves Protection and Repatriation Act of 1990*, as amended. General authorities include: the *American Indian Religious Freedom Act of 1979*; the NEPA; the FLPMA; and *Executive Order 13007-Indian Sacred Sites*. The proposed action is in compliance with the aforementioned authorities.

Southwest Idaho is the homeland of two culturally and linguistically related tribes: the Northern Shoshone and the Northern Paiute. In the latter half of the 19th century, a reservation was established at Duck Valley on the Nevada/Idaho border west of the Bruneau River. The Shoshone-Paiute Tribes residing on the Duck Valley Reservation today actively practice their culture and retain aboriginal rights and/or interests in this area. The Shoshone-Paiute Tribes assert aboriginal rights to their traditional homelands as their treaties with the United States, the Boise Valley Treaty of 1864 and the Bruneau Valley Treaty of 1866, which would have extinguished aboriginal title to the lands now federally administered, were never ratified.

Other tribes that have ties to southwest Idaho include the Bannock Tribe and the Nez Perce Tribe. Southeast Idaho is the homeland of the Northern Shoshone Tribe and the Bannock Tribe. In 1867 a reservation was established at Fort Hall in southeastern Idaho. The Fort Bridger

Treaty of 1868 applies to BLM's relationship with the Shoshone-Bannock Tribes. The northern part of the BLM's Boise District was also inhabited by the Nez Perce Tribe. The Nez Perce signed treaties in 1855, 1863 and 1868. BLM considers off-reservation treaty-reserved fishing, hunting, gathering, and similar rights of access and resource use on the BLM-administered lands it administers for all tribes that may be affected by a proposed action.

1.6 Scoping and Development of Issues

Internal scoping included a staff review of the grazing application for conformance with grazing regulations, resource conflicts, and management opportunities. External scoping included meetings with the permittee where current grazing and known issues were discussed, and used to develop the permittee application.

On April 3, 2012, an EA Scoping Package or notification letter was sent to all affected parties, interested publics, and agencies to inform the public of the proposal and solicit comments regarding the NEPA review of alternatives. Comments received in response to this solicitation are used to identify potential environmental issues related to the proposed action, and to identify alternatives that meet the purpose and need. One letter and 11 emails providing comments were received.

Resource issues and concerns identified through the scoping process included:

Special Status Plants: Slickspot peppergrass and proposed critical habitat are present. How does livestock grazing affect plants and their associated habitat?

Watersheds: How does livestock grazing affect watershed components including biological soil crusts, and health, vigor and diversity of native perennial and annual species?

Wildfire: Recent and historical wildfires have contributed to increased annual species dominating much of the allotment. How does livestock grazing affect fuel loads and vegetation communities? Several public comment letters were received in support of Alternative C, as a useful "tool" in preventing catastrophic wildfires through the area. While helping mitigate use of the area to the benefit of Slickspot peppergrass.

Wildlife: How does livestock grazing affect wildlife and their habitats?

Riparian Areas and Water Quality: There are no flowing, or free-standing, water resources occurring on public lands; therefore, riparian areas/wetlands, water quality, or fisheries resources will not be analyzed further in this document.

Recreation: Recreation use is prevalent in the area. How would livestock grazing affect recreational opportunities and experiences?

City of Eagle Recreation and Public Purposes Act Application: The city of Eagle submitted comments addressing concerns of this action's effects on their application. This document analyzes impacts of grazing use. Issuance of a grazing permit would not preclude processing the application; therefore, this issue is not considered further at this time.

2.0 Description of the Alternatives

This chapter describes and compares the alternatives considered for the management of the McPherson Individual Allotment. This section presents the alternatives in comparative form, in order to define the differences between each alternative and provide a clear basis for choice among options by the decision maker and the public. Design criteria and monitoring measures incorporated into the alternatives are also described.

2.1 Alternative Development Process

Proposed Alternative was developed from the grazing application received from Mr. Hanson. Subsequent meetings with Mr. Hanson resulted in a modified Permittee Application which incorporates the CCA Agreement terms and conditions. Additional alternatives were developed through internal discussions with the Interdisciplinary (ID) team, and proposed to allow analysis and evaluation of a full range of alternatives and multiple resource values and needs.

2.2 Alternatives Considered But Not Analyzed in Detail

Livestock Trailing

The Four Rivers Field Office recently received 24 crossing permit applications to trail livestock. None of the applications included the McPherson Individual Allotment; however, future applications could. The opportunity to issue crossing permits to allow livestock trailing was considered, but not analyzed in detail, for the following reasons. Slickspot peppergrass plants and habitat (Section 3.2) would be impossible to avoid. Trampling impacts caused by large groups of livestock (recent crossing permit applications included trailing events with livestock numbers of up to 9,000 sheep, USDI 2012) could cause major trampling impacts to slickspots and adversely affect pollinator habitat in the confined area. Alternative trailing routes that avoid the allotment are readily available.

Temporary Nonrenewable (TNR) Use

During above normal precipitation years, forage production may exceed the 34 AUMs currently permitted. Temporary nonrenewable use would allow an applicant to utilize the increased production. Use during the spring or early summer could help reduce fuel loads and subsequent wildfire threats. However, increased livestock use and numbers would adversely affect slickspot peppergrass through trampling damage of slickspots (spring use) and biological soil crusts (dry season use). When annual grasses become dormant, livestock would preferentially use green forage (e.g., remnant native perennial grasses and forbs), resulting in a potential downward trend in desirable species, with no effect on annuals. Because of the small size of the allotment, presence of slickspot peppergrass, and potential adverse effects on desirable species, TNR use will not be analyzed in detail.

2.3 Description of Permittee Application and Alternatives

The following alternatives have been identified based on the permittee application and scoping process:

- Alternative A – Extended Rest
- Alternative B – Continue Current Use (No Action)
- Alternative C – Permittee Application

Alternative D – BLM Proposal
 Alternative E – BLM Fall/Winter Proposal

2.3.1 Alternative A – Extended Rest

A livestock grazing permit would not be issued. No livestock grazing would occur for a 10-year period on BLM-administered lands. Rangeland management projects would remain in place, but normal maintenance would not be expected to occur. The potential for livestock grazing would be evaluated at the end of the ten-year term.

2.3.2 Alternative B – Continue Current Use

A total of 34 AUMs of spring use (April 11-May 31) would be permitted (Table 2).

Table 2. Livestock grazing authorization for Alternative B, McPherson Individual Allotment, Ada County, Idaho.

Allotment Name	Livestock		Start	End	%PL	Preference AUMs		
	Number	Kind				Active	Suspended	Total
McPherson Individual	20	C	4/11	5/31	98	34	0	34

Terms and Conditions

Eight terms and conditions would apply (Appendix 1). No terms and conditions specific to slickspot peppergrass would be implemented.

Rangeland Management Projects

No new projects would be constructed. The Big Fire ESR fence (0.42 miles) would be removed when vegetation objectives were met. Use of the full allotment and AUMs (34) could occur annually after the fence was removed.

2.3.3 Alternative C - Permittee Application

A total of 34 AUMs would be permitted from April 1 through October 31 (Table 3). Two pastures would be created and the pasture with slickspot peppergrass (East Pasture) would be rested in alternate years. Terms and conditions from the 2003 CCA and 2009 CA would be incorporated.

Table 3. Livestock grazing authorization for Alternative C, McPherson Individual Allotment, Ada County, Idaho.

Allotment Name	Year	Pasture	Livestock		Start	End	%PL	Preference AUMs		
			Number ¹	Kind				Active	Suspended	Total
McPherson Individual	Odd	East	34	C	4/1	10/31	100	17	0	34
		West						17		
	Even	East		C	REST		100	0	0	34
		West	34	C	4/1	10/31		34		

¹ Livestock numbers may not exceed 34 head at any time and AUMs would not be exceeded.

Terms and Conditions

Boise District other and BLM standard and other terms and conditions (Appendix 2 and Appendix 3) and the following specific terms and conditions would apply:

1. Permittee shall place water and salt/supplements to minimize trampling of slickspot peppergrass and of slickspots. Water/supplements would be placed at least 0.5 miles, preferably 0.75 miles, from known occurrences. Supplements that are attractants should be placed so that cattle would not trail through an EO to access the supplement. Attractants should be placed so that cattle are drawn away from these areas.
2. Livestock turnout would not occur when slickspot soils are saturated.
3. Livestock would not be trailed through EOs in the management area when slickspot soils are saturated.
4. If soils become saturated, permittee would move cattle away from EOs to a point where the slickspots are not present.
5. Within the management area, permittee would use only existing roads and tracks for vehicle travel.

Rangeland Management Projects

The following projects would be constructed:

- The Big Fire ESR fence would become a permanent pasture fence by rebuilding it to permanent specifications.
- The southern boundary of the West Pasture (115 acres) would be fenced along the canal and property boundaries to allow livestock control when water is not present in the canal (0.5 miles total, with 0.05 miles on BLM-administered lands) (Map 2).
- The east boundary fence of the East Pasture (120 acres) would be moved closer to the section boundary (remove 0.12 miles of existing fence and construct 0.14 miles of new fence) to avoid an occupied slickspot and a cattleguard would be placed where the fence crosses an unimproved road (Map 2).

2.3.4 Alternative D – BLM Modified-Permittee Proposal

A total of 34 AUMs would be permitted from April 1 to October 31 (Table 4). Two pastures would be created and up 34 animals could be grazing. The pasture with slickspot peppergrass (East Pasture) would be rested in alternate (even) years and terms and conditions from the 2003 CCA and 2009 CA would be incorporated. Because this would essentially double the stocking rate on the West Pasture to 3.5 acres/AUM in even years, no more than 40% utilization of key perennial grasses would be allowed. A monitoring plan would be implemented to allow adaptive management as necessary to achieve resource objectives (Appendix 5).

Table 4. Livestock grazing authorization for Alternative D, McPherson Individual Allotment, Ada County, Idaho.

Allotment Name	Year	Pasture	Livestock		Start	End	%PL	Preference AUMs		
			Number	Kind				Active	Suspended	Total
McPherson Individual	Odd	East	34	C	04-01	10-31	100	17	0	34
		West						17		
	Even	East	0	C	REST		100	0	0	34
		West	17	C	04-01	10-31		34		

Terms and Conditions

The terms and conditions described in Alternative C would apply. The following specific terms and conditions would also apply:

1. When soils become saturated (standing water in slickspots) during the odd year rotations, livestock would be moved to the West Pasture until soils are no longer saturated.
2. In even years, the West Pasture would be monitored for utilization 22 days into the grazing period to ensure no more than 40% utilization of key perennial grasses is achieved. If 40% is reached prior to the off date, livestock must be removed from the allotment.
3. During odd years, livestock numbers may not exceed 34 head and during even years, numbers may not exceed 17 head. Also, AUMs would not exceed 34 in any year.

Rangeland Management Projects

The Big Fire ESR and southern boundary fences would be constructed as described in Alternative C. The east boundary fence would be adjusted to accommodate the slickspot peppergrass EO, but the gate would be replaced with a self-closing pedestrian and equestrian friendly gate.

2.3.5 Alternative E – BLM Fall/Winter Proposal

A total of 34 AUMs would be permitted during a fall-winter use period (Table 5).

Table 5. Livestock grazing authorization for Alternative E, McPherson Individual Allotment, Ada County, Idaho.

Allotment Name	Livestock		Start	End	%PL	Preference AUMs		
	Number	Kind				Active	Suspended	Total
McPherson Individual	20	C	11/1	2/28	100	34	0	34

Terms and Conditions

Boise District other and BLM standard and other terms and conditions (Appendix 2 and Appendix 3) and the specific terms and conditions described in Alternative C would apply.

Rangeland Management Projects

The Big Fire ESR fence would be removed as described in Alternative B (current grazing), the southern boundary fence would be constructed as described in Alternative C, and east boundary fence and gate would be constructed as described in Alternative D (Map 2).

3.0 Affected Environment and Environmental Consequences

Impact Descriptors

Effects can be temporary (short-term) or long lasting/permanent (long-term). These terms may vary somewhat depending on the resource; therefore, each will be quantified by resource where applicable. Generally speaking:

- **Short-term** effects are changes to the environment during and following ground-disturbing activities that revert to pre-disturbance conditions, or nearly so, immediately to within a few years following the disturbance.
- **Long-term** effects are those that would remain beyond short-term ground disturbing activities.

The magnitude of potential effects is described as being major, moderate, minor, negligible, or no effect and is interpreted as follows:

- **Major** effects have the potential to cause substantial change or stress to an environmental resource or resource use. Effects generally would be long-term and/or extend over a wide area.
- **Moderate** effects are apparent and/or would be detectable by casual observers, ranging from insubstantial to substantial. Potential changes to or effects on the resource or resource use would generally be localized and short-term.
- **Minor** effects could be slight but detectable and/or would result in small but measurable changes to an environmental resource or resource use.
- **Negligible** effects have the potential to cause an indiscernible and insignificant change or stress to an environmental resource or use.
- **No effect** = no discernible effect.

Scope of Cumulative Impacts Analysis

In general, impacts to all resources considered were analyzed for cumulative impacts under a temporal scope of 10 years (life of the proposed grazing permit). A geographic scope was established for each resource.

Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions

The following past, present, and foreseeable actions affect conditions in the cumulative impacts analysis areas.

Development - Residential and agricultural development has occurred and will most likely continue to occur on private lands. Development has resulted in habitat conversion, increased noxious and invasive weed invasions, increased off-highway vehicle (OHV) use, increased threat of wildfire, changes to insect pollinator populations, and increased habitat fragmentation. The M3 Eagle development would eliminate up to 6,000 acres of native and invasive annual vegetation northeast of the allotment. Agriculture often requires the use of pesticides and herbicides which may affect insect pollinators. Agricultural areas and agricultural equipment often serve as vectors for the introduction of noxious and invasive species.

Fragmentation - Habitat degradation, alteration, and loss have fragmented habitat. Lack of connectivity reduces or eliminates genetic transfers between natural open spaces. Development and wildfires are the primary causes of fragmentation. The M3 Eagle development will cause a major increase in fragmentation.

Infrastructure - Several powerlines and pipelines occur on public and private lands and pose a potential fire risk. Most of these occur adjacent to roads which often serve as growth and transmission points for noxious and invasive plant species. On a number of occasions, damage to powerlines has resulted in wildfire that has led to the loss and/or degradation of open space habitat. Additional powerlines are planned in the future, most notably those associated with the proposed M3 Eagle development.

Livestock Grazing - In addition to the McPherson Individual Allotment, livestock use is permitted in the adjacent Black Canyon and Spring Valley allotments. Spring and fall domestic

sheep trailing occurs in both allotments. The Black Canyon Allotment receives limited cattle use. The Spring Valley receives spring cattle use; however, use of this area will end when the M3 Eagle development occurs.

Recreation – The analysis area occurs on the western edge of an area known as the “Eagle Foothills.” Open space areas, both public and private, are highly valued for recreational opportunities. Recreation uses can alter or eliminate vegetation cover, generally in repeatedly used areas (e.g., trails), and serve as seed transports (vectors) for noxious and invasive plants. The BLM has entered into a Memorandum of Understanding to develop a management plan for public lands in the Eagle Foothills. Recreational demands, especially on public lands, will increase as development and population increase in the area.

Wildfire – Although not planned, wildfire is a likely event in the analysis areas. Because of increased human presence and disturbance, wildfire frequency will increase over the 10-year period. Most fires would be expected to small because of the proximity to fire suppression resources and the fragmented nature of the area; however, a large fire would also likely occur. Habitat would remain in a degraded state, dominated by exotic annuals.

3.1 Uplands (Watershed/Vegetation)

3.1.1 Affected Environment – Uplands (Watershed/Vegetation)

Standard 1 (Watersheds) addresses the ability of an area to provide for the proper infiltration, retention, and release of water appropriate to soil type, vegetation, climate, and landform to provide proper nutrient and hydrologic cycling and energy flow. Standard 4 (Native Plant Communities) addresses the maintenance and promotion of healthy, productive, and diverse native plant populations and animal habitat, appropriate to soil type, climate and landform to provide proper nutrient and hydrologic cycling and energy flow. Productive and diverse native plant communities, in turn, provide habitat better suited to maintain viable populations of threatened and endangered, sensitive and other special status plant and animal species (Standard 8). Standard 6 (Exotic Plant Communities – other than seedings) addresses minimum requirements of soil stability, maintenance of remnant native and seeded perennial plants. Other requirements under this standard are: prevent the increase of noxious weeds, provide adequate plant litter for soil protection and decomposition to replenish soil nutrients relative to site potential and maintain adequate vigor of remnant perennial plants to enable reproduction and recruitment when favorable climatic or other environmental conditions occur.

Watershed

The uplands range in elevation from 2,500 to 2,750 feet. Annual precipitation ranges from 8 to 12 inches. The allotment is characterized by gently to moderately sloping hillsides and ridges. Soils types range from deep sandy loams to moderately deep clay loams. The watershed is currently meeting Standard 1. Vegetative cover (primarily high exotic annual grass cover, some perennial bunchgrass and shrub cover), biological soil crust cover, and litter amount are adequate to stabilize soils and cycle water and nutrients.

Biological Soil Crusts

Presence of biological soil crusts varies across the allotment. Crust cover ranges from 6% to 15% ground cover (in the interspaces) and 15% to 30% total cover (under vegetation canopy). Areas repeatedly disturbed by vehicles (e.g., two-tracks) or recently disturbed by wildland fire support little or no biological soil crusts.

Vegetation

Based on 2002 Pacific Northwest National Laboratory data, six general upland vegetative cover types are present (Table 6). Exotic Annuals (102 acres) and Big Sagebrush/Big Sagebrush Mix (79 acres) are the most common cover types. Plants typically associated with upland vegetative cover types are provided in Table 6.

Table 6. Total acres and proportion of vegetative cover types in the McPherson Individual Allotment, Idaho.

PNNL Cover Type	Characteristic Vegetation ¹	Acres ²	Proportion
Big Sagebrush/Big Sagebrush Mix	Wyoming big sagebrush, Bunchgrass, Exotic Annuals (occ)	79	34%
Bunchgrass	Thurber needlegrass, Purple threeawn, Sandberg bluegrass, Bottlebrush squirreltail, Basin wildrye, Exotic Annuals (occ)	29	12%
Bitterbrush	Antelope bitterbrush, Bunchgrass, Exotic Annuals (occ)	20	8%
Rabbitbrush	Green or gray rabbitbrush, Exotic Annual (occ) Bunchgrass (occ)	2	1%
Other ³	Sparse Vegetation, Mountain Big Sagebrush, Salt Desert Shrub	1	<1%
Exotic Annuals	Cheatgrass, Tall tumble mustard, Russian thistle, Bur buttercup, Bunchgrass (occ)	102	44%
TOTAL		233	

¹Occ = occasionally present. Perennial forbs (e.g., lupine, yarrow, death camas, and woolypod milkvetch) are also occasionally present in most cover types.

²Acres are slightly less because the Agriculture (1 acre) cover type is not included.

³'Other' was created to combine PNNL Cover Types (Sparse Vegetation, Mountain Big Sagebrush, and Salt Desert shrub) which compose less than 1% each of upland vegetation in the allotment.

Upland vegetation has been shaped by physical site characteristics such as soils, precipitation, and past disturbance (primarily wildland fire). The 1997 Little Gulch Fire burned 182 acres (77%) of BLM-administered land and the 2010 Big Fire re-burned 83 of those acres (36% of BLM-administered land). As a result, a mosaic of Wyoming big sagebrush communities with scattered rabbitbrush and bitterbrush and understories comprised primarily of cheatgrass and

occasional perennial grasses and forbs interspersed with cheatgrass communities (lacking shrubs) now occupy the allotment.

Standard 4 was applied to vegetative communities maintaining approximately 25% to 30% composition of Wyoming big sagebrush (regardless of the understory); that range approximates the Ecological Site Descriptions for sagebrush respective to each ecological site. Standard 4 is not being met on 131 acres due to shifts from native perennial grasses and forbs to exotic annual grass dominated understories. Understories have largely been converted to cheatgrass with varying densities of native perennial bunchgrasses (e.g., Sandberg bluegrass, bottlebrush squirreltail, and purple threeawn) remaining. These shifts can largely be attributed to the Little Gulch Fire, and exacerbated by the Big Fire.

Invasive Species

Annual exotic species (primarily cheatgrass) comprise 44% of the vegetative cover types (Table 6). Cheatgrass is an invasive exotic annual grass that often occupies disturbed areas (e.g., burned communities with reduced native perennial grasses), typically below 5,500 feet in elevation. The ability of cheatgrass to germinate in the late winter/early spring prior to other species and again in the fall, give it a competitive advantage for nutrients and moisture.

Standard 6 was applied to vegetative communities dominated by cheatgrass and annual mustards with low densities of herbaceous perennial vegetation and lacking shrubs. These plant communities are meeting the standard by maintaining adequate ground cover for site protection, maintaining existing perennial plants, and noxious weeds are not increasing.

Noxious Weeds

‘Noxious’ is a legal designation given by the Director of the Idaho State Department of Agriculture (ISDA) to any plant having the potential to cause injury to public health, crops, livestock, land or other property (Idaho Statute 22-2402). The ISDA is responsible for administering the State Noxious Weed Law in Idaho and maintains a list of noxious species which currently includes 64 species.

The Boise District BLM has an active weed control program that annually updates the locations of noxious weeds and treats known weed infestations utilizing chemical, mechanical, and biological control techniques. Infestations of noxious weeds are treated contingent upon the BLM annual weed budget, employee availability, and noxious weed priority.

There are no noxious weed occurrences recorded in the Boise District weed database for the allotment; however, during 2012 site visits, small amounts of rush skeletonweed were observed within the allotment. Rush skeletonweed is a noxious perennial weed capable of invading and dominating disturbed areas (roadsides, areas burned by wildfire, etc.) over a wide range of precipitation regimes and habitats (Sheley and Petroff 1999). It is a commonly occurring noxious weed along much of the Boise and Eagle foothills area. Although rush skeletonweed is present, it is currently not detracting significantly from overall plant community health. Russian knapweed has been documented approximately 0.5 miles north of the allotment.

3.1.2 Environmental Consequences – Uplands (Watershed/Vegetation)

A general discussion of how vegetation responds to livestock grazing and trampling precedes the discussion of consequences specific to each alternative.

The following assumptions apply for analysis purposes:

- Only environmental consequences to upland vegetation on BLM-administered lands are considered in this analysis; therefore, all acres and percentages reported refer solely to BLM-administered lands and only to upland vegetation.
- Short-term effects to upland vegetation would be ≤ 3 years; long-term effects would be >3 years.

Phenology of herbaceous perennial vegetation (i.e., preferred forage) assumptions:

Factors such as elevation, aspect, and temperature influence how early or late herbaceous perennials initiate and terminate growth, but these broad dates capture that spectrum and will be applied for analysis purposes.

- Growing season is generally between the beginning of March to mid-July (3/1-7/15);
- Dormant season is generally between mid-July to the end of February (7/16-2/28).

Utilization as it relates to ingestion or removal of biomass of herbaceous plants is as follows:

- Light utilization = 21% to 40% of the biomass removed
- Moderate utilization = 41% to 60% of the biomass removed
- Heavy utilization = 61% to 80% of the biomass removed
- Severe utilization = 81% to 94% of the biomass removed

3.1.2.1 General Discussion of Impacts

Watershed

Impacts to soils from livestock grazing that are considered include a loss of ground cover such as biological soil crusts, litter, and vegetation. Trampling causes soil compaction and pedestals, especially where ground cover has been reduced or removed. Soil disturbance reduces surface soil resiliency to wind and water erosion. General impacts have been grouped into mechanical and biological categories.

Effects of Mechanical Disturbance

- Soil surface degradation reduces water infiltration and increases surface runoff which can cause accelerated erosion.
- Decreased soil roughness that affects soil texture, micro topography, and soil temperature.
- Biological soil crust degradation can dramatically reduce site fertility and further reduce soil surface stability (Garcia-Pichel and Belnap 1996).

Effects of Biological Disturbance

- Decreased plant carbon and nitrogen fixation.
- Decrease in available nutrients for plants (e.g., magnesium, potassium, iron, and others) (Harper and Belnap in press).
- Decreased spatial distribution of nutrients.

Timing of disturbance can affect the degree to which the cover and species richness of a biological crust is reduced. Soils have different intrinsic soil strengths that vary with moisture content. Soils with little tendency to form aggregates, such as sands, are more susceptible to mechanical damage compression stresses when dry. Crust components are brittle when dry, and the connections they make between soil particles are easily crushed. Thus, compressional disturbances can severely affect the crust's ability to stabilize soils, especially in dry sandy and silty soils (Belnap et al. 2001). As crustal species are only metabolically active when wet and are brittle when dry, disturbance in dry seasons is generally more destructive, and organisms are less able to recover, than when disturbed in wet seasons (Harper and Marble 1988).

Vegetation

Direct impacts to vegetation include reductions in biomass via ingestion (grazing) and breakage (injury, deformity via trampling). Indirect effects include potential degradation of vegetative communities associated with livestock grazing activities, and the potential spread of weedy species passively and/or by livestock/wildlife transport (vectors).

Effects to vegetation are grouped by source (grazing, trampling, and vectors). These sources are addressed where appropriate for broad vegetative types potentially affected which include: perennial herbaceous vegetation, annual vegetation, and woody vegetation. Perennial herbaceous vegetation includes native and introduced perennial grasses and forbs. Annual vegetation includes native and introduced grasses and forbs. Woody vegetation includes shrubs.

Effects of Grazing

Perennial Herbaceous Vegetation - Livestock would graze preferentially on herbaceous components to the extent that they are actively growing, non-toxic, and non-piercing. Perennial grasses are most susceptible to grazing impacts during their critical growth periods (i.e., from seed stalk emergence to seed dissemination). Utilization during periods when plants are withdrawing reserves from roots for growth, during re-growth, or during seed formation would impact herbaceous species greater than the same level of utilization when the plant is not actively growing or dormant.

Generally, the vigor of perennial grasses can be sustained with repeated light utilization, while repeated moderate to heavy utilization reduces photosynthetic tissue and can diminish plant vigor. Areas which undergo repeated moderate to heavy utilization would maintain fewer perennial grasses and those remaining would be smaller and less vigorous (than lightly utilized plants), or would be found mainly under shrub canopies where they are difficult to reach.

Annual Vegetation - Grazing would remove biomass and could kill plants, but these impacts would be short-term due to the high fecundity and short life cycles of this group, particularly cheatgrass. Palatability and rapid growth of cheatgrass is typically earlier than the rapid growth phase for perennial native grasses. Grazing in these communities during the winter or early spring could result in some minor short-term indirect benefit for perennial native species by potentially relieving some of the grazing pressure on perennial native grasses. However, little change to annual vegetation would be anticipated regardless of use level.

Woody Vegetation - Livestock prefer herbaceous vegetation, but increasingly utilize woody species (e.g., bitterbrush) for browse as herbaceous vegetation goes dormant (Stuth and Winward 1977, Ganskopp et al. 2004).

Effects of Trampling

Perennial Herbaceous Vegetation - Trampling of perennial herbaceous plants could reduce perennial herbaceous plant productivity but would be unlikely to result in mortality of established plants. Trampling could uproot perennial plant seedlings and young plants, resulting in mortality to those plants. This group is generally more resilient to trampling than shrubs or annual plants due to its more flexible tissues and more extensive root systems.

Level of utilization is a reasonable correlation for amount of trampling perennial herbaceous vegetation may incur. Similar to grazing, repeated light use would have less of an effect on perennial plants than repeated moderate to heavy utilization. Areas subjected to repeated moderate to heavy utilization would maintain fewer perennial grasses and those remaining would be smaller and less vigorous (than lightly utilized plants), or would be found primarily under shrubs. A simulated study of hoof action on total shoot biomass and detached material in short grass sod vegetation types suggests moderate levels of trampling (i.e., four footfalls) removes approximately 5% of living biomass (Abdel-Magid et. al. 1987) .

Trampling of perennial vegetation would generally produce less of an impact during dormancy than during growth because perennial plants are less susceptible to above-ground injury when dormant. Soil compaction from trampling also affects vegetation by reducing water and oxygen infiltration and restricting root growth.

Annual Vegetation - Trampling of annual plants could result in injury or mortality, and/or seed bank reductions if trampled during their growing season (before seed set/dissemination). Seedbank reductions would be short-term and negligible to minor due to abbreviated life cycles and generally high fecundity, particularly for introduced and/or invasive species (e.g., cheatgrass).

Woody Vegetation - Trampling of shrubs could deform mature individuals and kill immature shrubs (Owens and Norton 1990). Brittle shrubs, such as bitterbrush, are more sensitive to trampling than more flexible shrubs, such as rabbitbrush. Shrub seedlings are more sensitive to trampling and dislodgement than older plants. Woody species within livestock grazing areas would generally display more deformities and fewer young plants where utilization levels are repeatedly moderate to heavy than adjacent stands.

Effects of Vectors

Animals may transport weed seeds that become attached to their bodies or drop undigested weed seeds in their feces. Cheatgrass can spread in this manner (Young and Longland 1996). Livestock grazing could indirectly elevate competition for limited resources between existing native and exotic species if livestock import and deposit exotic plant materials (Laycock and Conrad 1981). Livestock grazing could also have indirect minor short-term benefits for upland vegetation by dispersing native seeds and creating microhabitats for native species through localized soil disturbance (Burkhardt 1996).

A combination of impacts (i.e., disturbance, preferential grazing of herbaceous perennials, and weed seed transport) could increase invasive species, especially where livestock tend to congregate (e.g., watering facilities and mineral licks). Damage to native plants and soils can reduce plants' overall productivity and competitiveness creating niches for invasive species to occupy. Moist conditions and openings in ground cover created by hoof action provide opportunities for germination and spread of noxious and/or invasive plants.

Magnitude of Effects

Grazing intensity (e.g., utilization, stocking rate) and timing dictate the magnitude of impacts to upland vegetation. Generally speaking, with increased intensity, the degree that plant communities would be directly affected increases. Higher utilization levels would increase potential to trample or ingest vegetation. Grazing when plants are initiating growth or actively growing (typically in spring) would impact them more than when they are dormant (perennials) or have completed their life cycle (annuals).

The intensity of use (number of livestock per acre) also determines the amount of indirect impacts to plant communities. Low to moderate numbers may not damage or remove enough vegetation to allow for noxious or invasive plants to colonize a site. Large to substantial numbers of livestock have a greater potential to damage vegetation and create openings that may allow weedy species to establish. However, when livestock are properly distributed across the landscape, impacts can be reduced (Bailey et al. 1996). Weedy species that become established as a result of livestock grazing could spread into adjacent plant communities resulting in increased competition for resources over the short-and long-term.

3.1.2.2 Alternative A

Watershed

Standard 1 would be met over the long term. Removal of livestock use would result in minor to moderate improvements in watershed conditions over the long term. Mechanical disturbance from livestock, especially when soils are wet, would not occur. Where present, biological soil crust cover would increase slowly (>2 years, Belnap et al. 2001). Biological soil crust recovery would be negligible in areas where annuals dominate or that experienced historic concentrated use. Increased plant vigor and density would improve soil stability and nutrient cycling over the 10-year period.

Vegetation

Removal of livestock related grazing and trampling impacts would result in negligible to moderate improvements in vegetation conditions. Perennial grasses and forbs would complete growth and set seed annually, improving root reserves and reproductive potential resulting in increased vigor and density. However, Standard 4 would not be met over the long term because exotic annuals would persist in the understory. Areas dominated by invasive annuals would not change over the long term. Remnant perennials in these areas would still be at a competitive disadvantage. Rate of spread for noxious weeds that depend on livestock to disperse seeds or plant materials would be reduced; however, other methods (e.g., wind, wildlife, recreational users) could help establish and spread weeds.

3.1.2.3 Alternative B

Watershed

Standard 1 would be met over the long term; however, in shrub interspaces, biological soil crusts and perennial species would have a reduced role in watershed function and exotic annuals would have a greater role. Use could occur when soils are saturated and most susceptible to mechanical disturbance. Use would coincide with the active period of biological soil crusts; however, they would have limited time (e.g., up to one month) to recover from disturbance prior to entering dormancy. Minor additional mechanical damage would occur along existing fences as these areas have already been altered by previous use.

Vegetation

Standard 4 would not be met over the long term because exotic annuals would persist in the understory. Grazing and trampling impacts would occur every spring on perennial herbaceous vegetation. Frequency of species that are actively growing during the use period (e.g., Sandberg bluegrass, squirreltail, needlegrass, and most forbs) would remain static or decline in shrub interspaces, whereas species that are actively growing after the use period (e.g., purple threeawn) could increase over the long term. Standard 6 would be met over the 10-year period. Annual grasses would remain stable or increase where perennials decline. Livestock would be present to help spread noxious weed seeds.

3.1.2.4 Alternative C

Watershed

Standard 1 would be met over the long term; however, increased livestock numbers and an extended use period could reduce biological soil crust cover. A 70% increase in livestock numbers would occur over a 50% smaller area when all animals are in a particular pasture (e.g., even year use in the West Pasture) resulting in minor to moderate impacts to watershed function in shrub interspaces. Mechanical disturbance would be greatest when soils are saturated and biological disturbance would occur when animals are present during the dormant season of biological soil crusts (generally July 1 – September 30). Not turning animals out when soils are saturated would help reduce mechanical disturbance during the early spring; however, soils would still be vulnerable if substantial rain events ($\geq 0.5''$ in a 24-hour period) occur when livestock are present. Every other year rest would allow some recovery in the East Pasture. Trailing along 1.06 miles of fence (0.64 miles of new fence and 0.42 miles of the pasture division fence) would eliminate biological soil crusts, but would have a negligible effect on overall watershed health.

Vegetation

Standard 4 would not be met over the long term because exotic annuals would persist in the understory, but Standard 6 would be met. Increased numbers of livestock for a shorter period of time during the spring would have a negligible effect on annual grasses because use would coincide with perennial grass critical growth periods. Grazing impacts during odd years would be similar to Alternative B as overall use would be the same. During even years, doubling the stocking rate in the West Pasture would result in a downward trend in perennial grasses and forbs when all use occurs during the spring. Removing grazing and trampling impacts during even years in the East Pasture would result in a static or upward trend of perennial forbs and grasses. Use during the dormant period (e.g., July 1 – October 31) would minimize grazing impacts on grasses and forbs, but could result in increased use of palatable shrubs. Livestock could help

spread noxious weed seeds and create localized disturbed areas over a longer use period. Trailing along 1.06 miles of fence could reduce perennial vegetation and create new disturbed areas for annual and noxious weeds to become established.

3.1.2.5 Alternative D

Watershed

Impacts would be similar to those described for Alternative C; however, reducing numbers to 17 animals when only the West Pasture is available would help reduce impacts to biological soil crusts during even years. Moving animals out of the East Pasture when soils are saturated would reduce mechanical disturbances on 120 acres.

Vegetation

Grazing and trampling impacts in the East Pasture, during the dormant season, and along fencelines and impacts from livestock as potential vectors would be as described in Alternative C. Reducing livestock numbers to 17 animals and limiting utilization to <40% during even years would help limit grazing and trampling impacts in the West Pasture; consequently, the frequency of perennial grasses and forbs would remain static over the 10-year period. Moving animals out of the East Pasture when soils are saturated would reduce grazing and trampling impacts on 120 acres.

3.1.2.6 Alternative E

Watershed

Standard 1 would be met over the long term. Animal numbers would be the same as Alternative B; but use would occur when biological soil crusts are least susceptible to damage. Crust cover would remain static or increase slightly over the long term because they would not be disturbed during their active spring growth period. Impacts associated with new fencing would be as described in Alternative C, but mechanical and biological disturbances would be reduced where the Big Fire ESR fence was removed.

Vegetation

Standard 4 would not be met over the long term because exotic annuals would persist in the understory; however, some progress could be made toward meeting the standard. Standard 6 would be met. A minor to moderate reduction of annual grass fuel loads would help reduce the potential for hotter burning fires. Grazing and trampling impacts would occur primarily during the dormant season which would allow frequencies perennial grasses and forbs to increase over the 10-year period. Cool season grasses (e.g., Sandberg bluegrass) that are actively growing in November and February could experience minor grazing impacts, but frequencies would be maintained. Increased biological soil crust cover would help limit exotic annual grasses. Moderate utilization of palatable browse species could occur because most herbaceous forage would be dormant.

3.1.3 Cumulative Impacts – Upland Vegetation

3.1.3.1 Scope of Analysis

The scope of analysis is a 1.5 mile buffer around the allotment. This buffer includes habitat that would support insect pollinators of many of the forb and shrub species.

3.1.3.2 Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions

Approximately 41% of the area is agricultural fields, 3% is residential development, and the remainder is vegetative cover types like those in the allotment (Table 7). The Little Gulch and Big fires affected 55% of the undeveloped areas. Exotic Annuals is the dominant cover type.

3.1.3.3 Cumulative Impacts - Alternatives A-E

Minor to moderate improvements (Alternative A) or minor to moderate changes (alternatives B-E) in watershed and vegetation conditions on 235 acres (13% of analysis area) would have negligible additional cumulative effects. At least 255 acres (15%) of native perennial or exotic annuals cover types would be converted to residential development representing a major change in vegetation conditions. Approximately 253 acres (15%) outside the allotment would remain in poor condition, dominated by exotic annuals because of wildfire and other disturbance factors. Agricultural lands (742 acres, 41%) would be susceptible to erosion when ploughed and would not provide similar vegetative characteristics as native and exotic annual cover types.

3.2 Special Status Plants

3.2.1 Affected Environment – Special Status Plants

BLM special status plants are given a numeric ranking (from 1 to 4) based on several criteria including risk of extinction, population size, distribution, and trend. Species with the greatest threat are assigned a ranking of Type 1 and those with the least threat are assigned a ranking of Type 4. The FRFO obtained an updated list of ESA Listed, Proposed, and Candidate species and critical habitat issued by the USFWS dated August 17, 2011 (County Species List from the Idaho US Fish and Wildlife Service, <http://www.fws.gov/idaho/species/IdahoSpeciesList.pdf>).

Slickspot peppergrass (*Lepidium papilliferum*), currently listed as threatened (Type 1) under the Endangered Species Act, is the only special status plant known to occur in the allotment (Table 7). Slickspot peppergrass Management Area 2C, EO 76, proposed critical habitat, occupied habitat, and slickspot peppergrass habitat occur within the allotment. Proposed critical habitat is habitat that has been defined by the USFWS as critical to the long term survival of the species (221 acres could potentially be affected by livestock grazing). Occupied habitat consists of a 0.5 mile buffer around currently known EOs and was established to provide protection of habitat for the benefit of insect pollinators (267 acres could potentially be affected by livestock grazing). Slickspot peppergrass habitat is habitat that has been surveyed for the presence of the species at least once and is known to contain slickspots (4 acres could potentially be affected by livestock grazing).

Table 7. Special status plant species in the McPherson Individual Allotment, Ada County, Idaho.

Common Name	Species	Occurrence	Acres
Slickspot Peppergrass	<i>Lepidium papilliferum</i>	Element Occurrence 76	22
		Proposed Critical Habitat	221
		Occupied Habitat	267
		Slickspot Peppergrass Habitat	4

This species is endemic to the Snake River Plain and extends from Parma, Idaho to Glens Ferry, Idaho in the north and to near Twin Falls, Idaho in the south. In 2006, BLM and the USFWS

entered in a candidate conservation agreement that provided for implementation of a number of conservation measures including ones designed to help offset adverse impacts to the species from livestock grazing. The primary intent of these measures, with respect to livestock grazing, was to manage livestock grazing and trailing to conserve suitable habitat conditions for slickspot peppergrass while implementing rangeland health standards and guidelines.

Standard 8 is not being met due to invasive annuals. Current livestock use is not a significant factor. The viability of much of the current slickspot peppergrass habitat (slickspots) has been compromised because of historic grazing and recent fires. Cheatgrass dominates the understory and native perennial forb diversity was moderate (seven species) and abundance was low. Soil crust cover was low throughout much of the allotment.

3.2.2 Environmental Consequences – Special Status Plants

3.2.2.1 General Discussion of Impacts

In 2009, wildfire and invasion by invasive annuals and noxious weeds were identified as the two primary reasons for slickspot peppergrass decline and loss of habitat (74 FR 52014-52064). Livestock grazing was also identified as a threat, and specific impacts associated with livestock grazing include pollen source reduction, mechanical damage, long-term seed availability, biological soil crust damage, and spread and continued persistence of invasive annuals and noxious weeds.

Slickspot peppergrass is a species of mustard and like most mustards is not particularly palatable to livestock. As a consequence, the direct effects of livestock grazing on these plants are minimal. The primary impacts of livestock grazing are due primarily to trampling of plants and the adjacent habitat, particularly in the spring when plants are flowering and soils tend to be saturated. However, other forb species that support slickspot peppergrass pollinators are susceptible to grazing and trampling.

Pollen source reduction - A reduction in the number and diversity of pollen sources (native forbs) reduces the diversity of pollinators (insects) available to slickspot peppergrass (USFWS 2006). Slickspot peppergrass is primarily an outcrossing species, requiring pollen from separate plants for successful fruit production. Pollen is transported solely through insects; therefore, pollinator conservation is essential to the conservation of slickspot peppergrass. Livestock trampling is known to reduce habitat (natural cavities -dead plant stalks, holes in stems, etc. and ground nests) for insect pollinators as well as reducing the number and diversity of native plants (pollen sources). Forbs tend to be most susceptible to grazing and trampling impacts in the spring (March 1- June 30). Excessive spring grazing that does not allow for seed set inhibits maintenance and expansion of existing native forb communities. Forb communities are the least susceptible to trampling and grazing impacts in the late fall and early winter when most native forbs are dormant (perennials) or overwintering as seeds (annuals).

Mechanical damage – Livestock trampling directly affects slickspots during wet and dry periods. Livestock trampling of water-saturated slickspot soils that breaks through the restrictive layer has the potential to alter the soil structure and functionality of slickspots. Trampling when slickspots are dry can lead to mechanical damage to the slickspot crust, potentially resulting in invasion of non-native plants into the slickspots.

Long-term seed availability – When pollinator diversity is reduced, the amount of viable slickspot peppergrass seeds produced is reduced. Livestock may actually push viable seed below a depth at which it can germinate.

Biological soil crust damage - Loss of soil crusts reduces the water holding capacity and the amount of nitrogen fixation that can occur. This is especially important in desert ecosystems where both water and nitrogen tend to be at a premium. Loss of soil crusts also tends to promote colonization of invasive annuals and noxious weeds. Livestock trampling is known to result in damage to soil crusts. Soil crusts are most susceptible to trampling impacts in the summer and early fall (July 1- October 31) when soil moisture is minimal and crusts are unable to repair any damage because they are dormant. They are least susceptible to trampling impacts in the late fall and winter (November 1- January 31) when soils are moist but not excessively so. Excessive moisture (saturated soils) may also prove detrimental to crusts as trampling may push crusts below the soil surface where they are unable to photosynthesize due to a lack of available light. Early spring grazing (March 1- April 30) reduces the potential impacts to soil crusts. However, late spring (May 1-June 30) grazing is detrimental to soil crusts as trampling damage occurs when there is insufficient time remaining for crusts to repair themselves prior to dormancy.

Spread and continued persistence of invasive annuals and noxious weeds - inhibits the growth of native species and the recovery of native ecosystems. Livestock trampling leads to a continuous and prolonged level of soil disturbance that is conducive to the growth of invasive annuals and noxious weeds. Livestock trailing routes also serve as transmission corridors for the transport of invasive annual and noxious weed seeds primarily through physical transport.

3.2.2.2 Alternative A

Livestock would not affect slickspot peppergrass and its habitat over the 10-year period; however, Standard 8 would not be met because of invasive species. A moderate increase in native perennial forb abundance and diversity would provide additional habitat for slickspot peppergrass pollinators and increase the likelihood that slickspot peppergrass plants would be pollinated in a given year. Trampling of slickspots would not occur and individual slickspots would begin to show signs of recovery as soil moved by wind and water filled in any existing damage. Recovery and/or expansion of existing pockets of soil crust with an accompanying reduction in invasive annual grass cover would occur. Full recovery would probably not occur for at least 20-50 years. However, noticeable effects would probably be apparent within five years.

3.2.2.3 Alternative B

Standard 8 would not be met over the long term because of invasive species; however, every-year spring use would affect 235 acres of slickspot peppergrass habitat. Long-term suppression of native forbs would limit pollinator diversity and success. Use would occur when soils are most likely to be saturated and potential trampling damage could be greatest, especially on 22 acres of the EO. Minor trampling impacts from 20 head would be spread over a 50-day period which would give biological soil crusts a limited recovery period. Trampling damage could occur annually at an occupied slickspot that occurs within 10 feet of the east boundary fence.

3.2.2.4 Alternative C

Standard 8 would not be met over the long term because of invasive species; however, alternate year rest would result in a minor short-term (\leq one year) improvements in the East Pasture (120 acres). In even years, livestock effects on pollinator habitat, mechanical damage, seed availability, and biological soil crusts would not occur in the East Pasture. In odd years, impacts in the East Pasture could be greater than Alternative C because 34 animals could be present (e.g., increased trampling damage during the spring). Minor improvements in pollinator habitat and seed availability in the East Pasture could occur over 10 years. An increase in animal numbers and dormant season use (July 1-September 30) would adversely affect biological soil crusts in both pastures. Dormant season use would reduce effects on pollinators. Implementation of the slickspot peppergrass and Boise District terms and conditions would help minimize trampling damage to slickspots in the spring when soils tend to be most saturated. Doubling the stocking rate in the West Pasture during even years would cause a moderate reduction in pollinator habitat and biological soil crusts and an increase in invasive cover over 10 years. Trampling impacts would occur along 1.06 miles of fence (0.64 miles of new fence and 0.42 miles of the pasture division fence); however, no currently known occupied slickspots would be impacted. Moving the east boundary fence would reduce trampling impacts in an occupied slickspot.

3.2.2.5 Alternative D

Impacts would be similar to those described in Alternative C; however, implementation of additional terms and conditions would reduce short and long term livestock impacts. Removal of livestock from the East Pasture when soils are saturated would help limit mechanical damage and increase long-term seed availability. Reduced livestock numbers (17) and a \leq 40% utilization level would in the West Pasture would benefit pollinator habitat and biological soil crusts by reducing livestock trampling damage and utilization in even years. Minor improvements in slickspot peppergrass habitat would occur over the 10-year period where perennial forb and biological soil crust cover increases and invasive cover decreases. Trampling impacts would associated with fencing would be as described in Alternative C.

3.2.2.6 Alternative E

Standard 8 would not be met over the long term because of invasive species; however, fall/winter use would help minimize livestock grazing impacts over the 10 years. Moderate improvements in 235 acres of pollinator habitat would occur because plants would not be used when they were actively growing. The potential for saturated soil conditions and potential damage to slickspot peppergrass and its habitat would be minimal. Slickspots would begin to show signs of recovery as soil moved by wind and water filled in any existing damage. Long-term seed availability would increase with reduced trampling and improved pollination. There would be a minor decrease in invasive annuals. Use would occur when biological soil crusts are least susceptible to damage. Trampling impacts would occur along 0.92 miles of fence; however, no currently known occupied slickspots would be impacted.

3.2.3 Cumulative Impacts– Special Status Plants

3.2.3.1 Scope of Analysis

Slickspot peppergrass is restricted to the Snake River Plain and occurs within the confines of both the Boise and the Twin Falls Districts. The scope of analysis is a 1.5 mile buffer around the allotment. This buffer includes slickspot peppergrass EOs 76 and 108. The nearest slickspot

peppergrass EO to this buffer is approximately 2.5 miles away and outside the range of known slickspot peppergrass pollinators (0.5 miles). Consequently, these two EOs are most likely genetically isolated from the nearest known location of slickspot peppergrass.

3.2.3.2 Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions

There are approximately 1,580 acres of proposed critical habitat, 1,701 acres of occupied habitat, and 139 acres of slickspot peppergrass habitat in the analysis area. Approximately 41% of the area is agricultural fields, 3% is residential development, and the remainder is vegetative cover types like those in the allotment (Table 7). The Little Gulch and Big fires affected 55% of the undeveloped areas. Exotic Annuals is the dominant cover type.

The effects of current and foreseeable future activities include: livestock grazing, habitat fragmentation, residential and agricultural (including pest control) development, and energy infrastructure. The effects of future wildfires are also considered because these natural events are predictable to a certain degree based on the number and size of wildfires that have occurred in the past decade.

Development - The M3 Eagle development would eliminate approximately 240 acres of occupied habitat. Annual pesticide and herbicide applications would adversely affect pollinators and their habitat; however, some crops (e.g., alfalfa) could provide habitat for pollinators.

Wildfire - Another fire would potentially eliminate slickspot peppergrass from this area given the current habitat conditions, and the relatively small acreage (22-acre EO 76 and 4-acre EO 108) currently occupied by the species.

3.2.3.3 Cumulative Impacts - Alternatives A-E

Minor to moderate improvements (Alternative A) or minor to moderate changes (alternatives B-E) in 235 acres of slickspot peppergrass habitat (13% of analysis area) would have negligible additional cumulative effects. At least 255 acres (15%) of slickspot peppergrass habitat would be converted to residential development fragmenting remaining habitat and providing marginal pollinator habitat. Approximately 253 acres (15%) outside the allotment would remain in poor condition, dominated by exotic annuals because of wildfire and other disturbance factors. Agricultural lands (742 acres, 41%) would fragment habitat and adversely affect pollinators.

3.3 Wildlife

3.3.1 Affected Environment – Wildlife and Special Status Species

The allotment provides limited habitat for big game, Paiute ground squirrel, badgers, American kestrel, and a variety of songbirds. Migratory birds (e.g., loggerhead shrike, Brewer's sparrow) are the only special status species known to occur. The allotment is located on the edge of large expanses of agricultural land and areas of urban development which have degraded the quality of wildlife habitat. The majority of intact big game winter habitat is found to the northeast. Since 1997, wildfires have reduced or eliminated bitterbrush, an important winter browse species, sagebrush, and perennial grasses and forbs in up to 44% of the allotment. Wyoming big sagebrush, antelope bitterbrush, and rabbitbrush, which provide cover and food for wildlife, are present in trace amounts (<2%) in burned areas and are subdominant (10-40%) in unburned areas.

The herbaceous understory which also provides food and cover for wildlife is dominated ($\geq 40\%$) by cheatgrass with subdominant (10-40%) shallow rooted perennial grasses such as Sandberg bluegrass and purple threeawn. Sandberg bluegrass is valuable forage for ground squirrels; however, purple threeawn provides little value to wildlife species and is an indicator of range deterioration (Stubbendieck et al. 2003). Perennial forbs including western yarrow, woolypod milkvetch, and arrowleaf balsamroot make up a minor component (2-5%) of habitat and provide food sources for insects which in turn provide a prey base for small mammals and songbirds. Standards that apply to wildlife habitat (4 and 8) are not being met because of the effects of wildfires.

3.3.2 Environmental Consequences – Wildlife and Special Status Species

3.3.2.1 General Discussion of Impacts

The general effects of grazing on wildlife would include changes in habitat quality, nest/burrow destruction, competition for forage, and fencing.

Short-term impacts - < 1 year

Long-term impacts – 1-10 years

Changes in Habitat Quality/Structure

Changes in wildlife habitat and structure can be both a direct and indirect impact of livestock grazing. Livestock-caused defoliation and trampling of palatable forage species could have short-term impacts on wildlife habitat by reducing plant populations and their ability to reproduce; thereby, limiting resources available to wildlife and the capacity of residual perennial plant communities to reestablish (Anderson and Holte 1981). Livestock grazing that alters plant communities from native perennial species to exotic annuals would benefit species that use disturbed or early successional habitats (e.g., long-billed curlew, horned lark), but would provide marginal foraging habitat for most other species.

Nest/Burrow Destruction

Livestock could potentially damage nests and burrows. If use occurs during the nesting period or while species reside within their burrows, livestock could cause adult mortalities, but are more likely to impact juveniles that are present because of their reduced mobility. Birds that nest on the ground (e.g. long-billed curlew) or in burrows (e.g. burrowing owls) would be more susceptible to trampling impacts than shrub nesting birds (e.g. Brewer's sparrow) as ground nests tend to be larger and more conspicuous.

Forage Competition

Competition for forage may exist under the following conditions: 1) domestic and big-game animals are utilizing the same area, 2) forage plants are in limited supply, or both domestic and big-game animals are consuming the same forage plants (Smith and Julander 1953). Moderate to severe livestock utilization levels could limit forage for wildlife during critical periods (e.g., winter)

Fencing

Depending on the surrounding topography and vegetation, a fence can blend into the background causing collisions for birds resulting in mortality. Fences can be used as perches by avian predators. Fences impede movement of wildlife, particularly big game.

3.3.2.2 Alternative A

Habitat quality would gradually improve in the absence of livestock grazing. The abundance and diversity of native perennial forbs would increase as plants would have an opportunity to grow to optimal heights and produce seed for multiple years. Increased diversity and abundance of forbs and grasses, and associated increases in insect diversity and abundance, would benefit omnivorous and granivorous species. Annual dominated communities would provide less suitable foraging habitat for shrub-dependent species. Overall, extended rest would result in minor to moderate improvements of wildlife habitat.

3.3.2.3 Alternative B

Standards associated with wildlife habitat (4 and 8) would not be met over the 10-year period primarily because of exotic annual grasses and forbs. Authorizing spring livestock use would help maintain 235 acres of wildlife habitat in a degraded condition. Perennial grasses and forbs would be present, but primarily in shrub understories and in reduced diversity and abundance. Trampling impacts would occur during the nesting period, but minor direct impacts would be expected from 20 animals. However, livestock could be present for up to 50 days. Livestock would primarily be using herbaceous forage which would have a minor impact on forage availability during the spring and a negligible effect on bitterbrush during the winter.

3.3.2.4 Alternative C

Standards associated with wildlife habitat (4 and 8) would not be met over the 10-year period primarily because of exotic annual grasses and forbs. Providing biannual rest on 120 acres (East Pasture) would result in a minor improvement in wildlife habitat food and cover components, but increased use of the West Pasture in even years would reduce food and cover components over the short and long terms. Moderate trampling impacts could occur during the nesting period when 34 animals are present in the West Pasture during even years. Trampling impacts would be spread over a larger area during odd years. Disturbances would be for a shorter period (<1 month) when full livestock numbers are present. Forage competition would be similar to Alternative B; however, use of bitterbrush could increase if livestock grazing occurs when forbs and grasses are dormant. New fencing (0.52 miles beyond current levels) would be built to wildlife standards which would minimize impacts to wildlife passage.

3.3.2.5 Alternative D

Impacts for the East Pasture, dormant season use, and fencing would be as described in Alternative C. Reducing livestock numbers to 17 animals and utilization to 40% in the West Pasture during even years would reduce trampling impacts and help maintain food and cover over the long term.

3.3.2.6 Alternative E

Standards associated with wildlife habitat (4 and 8) would not be met over the 10-year period primarily because of exotic annual grasses and forbs, but progress would be made toward meeting standards where increases in perennial grass and forb cover would benefit wildlife.

There could be minor annual reductions in early season nesting cover, but cover and food sources would be maintained or improved over the long term. Short-term trampling impacts would not occur during the nesting season. Hibernating mammal burrows would be deep enough to avoid trampling impacts. Dormant season use could result in minor forage competition for bitterbrush, but forage competition would not occur during the spring and summer. Impacts from new fencing would be as described in Alternative C and removal of 0.42 miles of fence would have a minor benefit to wildlife passage.

3.3.3 Cumulative Impacts – Wildlife and Special Status Species

3.3.3.1 Scope of Analysis

Scope of analysis is a 3 mile buffer around the McPherson Individual Allotment. A 3 mile buffer would likely incorporate habitat that wildlife present in the allotment may utilize.

3.3.3.2 Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions

Wildlife habitat in the 24,000-acre analysis area is substantially altered. Wildfires and historic grazing have reduced native shrubs, grasses, and forbs which have been replaced with exotic annuals. The area is highly fragmented by degraded habitat, low and high density development, infrastructure (Highway 16, numerous surface roads, and powerlines), and agricultural fields. Future development would eliminate natural habitat and further fragment habitat.

3.3.3.3 Cumulative Impacts - Alternatives A-E

Minor to moderate improvements (alternatives A and E) or minor to moderate changes (alternatives B-D) in 235 acres (1%) of wildlife habitat would have negligible additional cumulative effects. Up to 3,100 acres (13%) of natural habitat would be converted to residential development by M3 Eagle which would fragment remaining habitat and provide marginal wildlife habitat for disturbance tolerant species over the long term. Approximately 6,400 acres (27%) outside the allotment would remain in natural habitat, dominated by exotic annuals and low to moderate density, isolated stands of native shrubs, perennial grasses, and forbs. Wildfire and other disturbance factors would be a moderate to major factor in these areas. Agricultural lands and existing development (12,800 acres, 41%) would fragment natural habitat and provide marginal wildlife habitat.

3.4 Recreation

3.4.1 Affected Environment – Recreation

As the Treasure Valley's population grows, open space in the adjacent foothills becomes more important as a place of recreation and relaxation. The project area is located on the western edge of a block of public land, known locally as the "Eagle Foothills," in close proximity to the communities of Eagle, Star, and Emmett, Idaho. The City of Eagle has entered into a Memorandum of Understanding with the BLM to cooperatively manage BLM-administered lands in the Eagle Foothills for open space values and opportunities. These "urban interface" lands have limited public access where there are privately controlled access points. Public access to the project area is available at the northern terminus of Hartley Road. An exception is where private landowners are situated adjacent to public land; these landowners have personal access but do not make that access available to the general public. As of January 27, 2011, nearly 1,920 acres of public land was temporarily closed for 24 months to allow for recovery and

establishment of native vegetation following the July 2010 wildfire (the Big Fire). This area remains open to non-motorized recreation access.

The northern end of Hartley Road also provides public access to the larger expanse of public lands in the Eagle Foothills. This area offers undeveloped and dispersed recreational opportunities in a roaded-natural type setting. The opportunities and experiences these lands supply in the urban interface are of local recreational importance. The area does not offer the exceptional types of recreational opportunities that draw out-of-state or international visitors, such as the nearby Payette River Corridor. In the last several years the area has become more popular for both motorized and non-motorized, trail based recreation activities, including hiking, mountain biking, horseback riding, and motorcycle and OHV riding.

The BLM-administered lands have an OHV designation of “limited to existing roads and trails.” Cross-country motorized travel is not allowed. There are approximately two miles of informal trails within the allotment. While demand for riding areas and trails has increased, surrounding private lands are becoming more urbanized and some popular trails crossing private lands have been closed to public use as new developments occur. Additionally the area is increasingly being used for target shooting. These activities are not always compatible with other uses.

The Idaho Department of Fish and Game manages hunting in the area. The lower elevations of the foothills serve primarily as winter range for mule deer and elk. The project area falls within the Weiser River Elk Management Zone and Game Management Unit 32. The hunting season for deer ranges from the end of August to the end of October, depending on the permit. The hunting season for elk ranges from the beginning of August to the end of November, depending on the permit. Upland game bird hunting also occurs in the accessible portions of the Eagle Foothills.

The allotment is managed as part of an extensive recreation management area. Management emphasis focuses primarily on visitor health and safety, avoiding user conflict, resource protection, and land health. This custodial management approach is not intensive and there are no recreational facilities such as trail heads, potable water, interpretive signs, or vault toilets provided.

Though direct recreation use observations are not available, BLM estimates that dispersed recreation use for the Eagle Foothills area (about 1,650 acres) is about 3,000 – 4,000 visits per year. Given the small area and limited miles of trail in the project area, weekday trail use would be expected to be very low (0 – 10 visits/day). Weekend use, especially during spring and fall, could likely be 2 – 3 times higher. These use levels would result in an estimated annual use between 1,000 – 2,000 visits.

3.4.2 Environmental Consequences – Recreation

3.4.2.1 General Discussion of Impacts

Livestock grazing could affect visitor’s perceptions of an area. Practices that result in degraded vegetative communities could adversely affect visitor experiences. The presence of livestock affects each user differently. Livestock management projects such as fencing could limit access

to areas. If gates are not provided, equestrian and OHV users would not be able to access areas behind fences.

3.4.2.2 Alternative A

This would result in an improvement in the overall “natural” condition of the area. Those visitors seeking a natural experience would come across better vegetative conditions, a higher scenic quality, and would not encounter livestock. All these conditions would lead to a higher quality recreational experience for those seeking pre-ranching experiences. Removing livestock would eliminate direct impacts to the roads and trails from hoof action. Motorized users are not likely to be affected.

3.4.2.3 Alternative B

Maintaining current vegetative conditions would result in a negligible change in recreational users’ experiences from the existing state. Removing fencing would allow non-motorized users a little more freedom in selecting a travel route to other areas of public land.

3.4.2.4 Alternative C

The creation of East and West pastures would likely have a minor impact to recreation users. Public access is in the East Pasture, and most users using the area travel further east to the larger expanse of public land. The West Pasture is a “dead end” as far as exiting public land. The primary users of the western section are adjacent landowners and not the general public. Gates on new fences would not affect recreationists’ use of the existing roads and trails.

3.4.2.5 Alternative D

Impacts would be the same as Alternative C.

3.4.2.6 Alternative E

Changing when livestock are present from spring/summer to fall/winter use would eliminate most potential conflicts with recreational users. Recreation use in the project area occurs mainly in the spring and fall during nice weather. Hot summer temperatures tend to limit use to early morning or early evening and winter use is also tempered by cold conditions.

3.4.3 Cumulative Impacts – Recreation

3.4.3.1 Scope of Analysis

The scope of the cumulative impacts for recreation is the foothills area used for recreation north of Eagle, Idaho. Recreational use is somewhat restricted by highways on the east and west and private lands.

3.4.3.2 Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions

The area is a relatively small block of public land that is highly valued by local residents for its open space values and recreational opportunities. It is foreseeable that over time this area will be completely surrounded by residential housing. As the surrounding population grows, there will be a greater demand to provide these opportunities to an increasing number of people. There is potential for conflicts between livestock management objectives and the recreating public if these uses are not properly managed.

3.4.3.3 Cumulative Impacts - Alternative A-E

Cumulative impacts to the recreational resources would most likely show an increased number of impacts due to the proposed new housing developments and the accompanying recreation demand associated with an increasing population rather than livestock management. There would be a negligible additional cumulative effect from permitting grazing and constructing up to 1.06 miles of fence.

3.5 Visual Resource Management

3.5.1 Affected Environment – Visual Resources

Scenic quality is the relative worth of a landscape from a visual perception point of view. The BLM is mandated to consider visual character during project planning and developed the Visual Resource Management (VRM) system for that purpose. The VRM system provides a way to identify and evaluate scenic values to determine appropriate levels of management. It also provides a way to analyze potential visual impacts and apply visual design techniques to ensure that surface-disturbing activities are in harmony with their surroundings. Factors of scenic quality include landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. All BLM lands are categorized in one of four VRM classes.

- Class I Objective: To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention
- Class II Objective: To retain the existing character of the landscape. The level of change to the characteristic landscape should be low
- Class III Objective: To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.
- Class IV Objective: To provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.

The project area is managed under the current land use plan as a Visual Resource Management (VRM) Class III area. Management activities may attract attention, but should not dominate the view of the casual observer. Change should repeat the basic form, line, color, and texture elements found in the natural landscape.

The low, rolling foothills create irregular shadows throughout the day. The combination of arid grasslands and low-growing shrubs create an irregular mosaic of muted browns, greens, and yellows that exhibit fine to medium textures. The scenery adjacent to the allotment exhibits a rural to suburban landscape where constructed features like roads and residences are scattered. Visual contrasts are readily noticeable due to proximity to local residents and the viewing angles of travelers along SH-16 and local county roads.

Residents directly south of the allotment, on Homer Road and Hartley Road, experience foreground to middle ground views of the area for potentially long durations. Residents and workers, who live further south and east, towards the cities of Star and Eagle, experience middle ground to background views for long durations. Motorists traveling along SH-16 and other local county roads experience foreground to middle ground views for short durations but commuters may experience these views frequently.

3.5.2 Environmental Consequences – Visual Resources

The VRM class assigned to the area is evaluated against the impacts of the proposed alternatives to determine what, if any, mitigation is required to meet the VRM class objectives.

3.5.2.1 Alternative A

Visual resource management Class III management objectives would be met over the 10-year period. No livestock grazing would result in fewer changes in the vegetation due to grazing thus minimizing changes to the texture of the landscape. Removing existing emergency fences would eliminate infrastructure contrast to the natural environment.

3.5.2.2 Alternative B

Visual resource management Class III management objectives would be met over the 10-year period. No changes to visual resources would occur due to current livestock uses. Removing existing emergency fences would eliminate infrastructure contrast to the natural environment.

3.5.2.3 Alternative C

Visual resource management Class III management objectives would be met over the 10-year period. Changing the time when livestock are present would not alter the visual impact of the public lands. Short-term disturbance caused by the presence of equipment would be visible during the removal and reconstruction of fences. New fencing would add an additional feature to the landscape.

3.5.2.4 Alternative D

Impacts would be similar to Alternative C.

3.5.2.5 Alternative E

Impacts would be the same as Alternative B with respect to livestock grazing and the same as Alternative C with respect to fence removal and new fence construction.

3.5.3 Cumulative Impacts – Visual Resources

The project area is located on the western edge of an area known as the “Eagle Foothills.” The area is a relatively small block of public land that is highly valued by local residences for its open space and scenic values. It is foreseeable that over time this area will be completely surrounded by residential housing. As the surrounding population grows, there is potential for impacts to the visual character from increased motorized recreational uses if these uses are not properly managed.

Under all alternatives, cumulative impacts to the visual resources would continue to meet the management objectives of VRM Class III to partially maintain but allow moderate change to the visual character of the landscape.

3.6 Cultural and Paleontological Resources

3.6.1 Affected Environment – Cultural and Paleontological Resources

Under Section 106 of the NHPA, the BLM must protect cultural resource sites that are listed, or eligible for listing on the National Register of Historic Places (NRHP). Cultural resource sites listed or eligible for listing are known as historic properties. If historic properties cannot be protected, then adverse impacts would be mitigated using guidelines provided by the National Programmatic Agreement and the Idaho state protocol.

A records review and GIS analysis was conducted using the cultural resource database maintained by the BLM and the Idaho State Historic Preservation Office (SHPO) to determine if any historic properties would be impacted by proposed actions. Five Class III Cultural Resources Inventories, including a survey for one of the proposed projects, were conducted between 1992 and 2012. The surveys recorded three historic sites that were interpreted as two historic scatters and one sheep herder's camp. All three sites were evaluated by the BLM and SHPO as not eligible to be listed on the NRHP.

An existing historic road, the Basye Freight Road, is located approximately 160 feet beyond the northeast corner of the allotment. Preliminary research indicates that the road was used by Mr. Basye to haul freight with wagons and horses. The road is believed to date to 1870. The status of the road is undetermined, but for analysis purposes it will be considered eligible to be listed on the NRHP. The road is in the wildland-urban interface and receives regular recreational use including motorized vehicles, equestrians, and hikers. Much of the surface context has been altered by these activities.

BLM records indicated there are no known paleontological resources within the allotment.

3.6.2 Environmental Consequences – Cultural and Paleontological Resources

Because no eligible or paleontological sites occur within the allotment, renewing the permit would not adversely impact any historic properties and the impacts of livestock grazing will not be discussed further. Moving the fence on the northeast boundary could impact the Basye Freight Road; therefore, impacts will be addressed below. If the road is identified by the BLM and SHPO as an historic property, then some form of mitigation would occur. Mitigation may include additional records research, additional site recording, and/or the creation of interpretive signs.

3.6.2.1 General Discussion of Impacts

Livestock management projects (e.g., fences, cattleguards, and troughs) primarily affect historic properties during the construction phase or during subsequent use when concentrated use occurs at the project.

Construction – Activities that disturb the soil profile ≥ 4 inches from the surface would damage or destroy context.

Concentrated Use - Intensive trampling primarily affects surface context and physical condition of historic properties (Nielson 1991). Trampling can cause several types of damage, including

breakage, micro-chipping, and abrasion. Loss of vegetation and subsequent erosion could affect subsurface contexts. Loss of context can result in inaccurate interpretations.

3.6.2.2 Alternative A

Removing livestock would eliminate all threats of damage to cultural resources that could result from concentrated use areas. Increased vegetative cover would help maintain surface and subsurface contexts over the 10 year period.

3.6.2.3 Alternative B

Concentrated use would occur on the existing fence located about 160 feet from the Basye Freight Road. Any damage from trampling or vegetation loss has already occurred. The condition and context would remain unchanged over the 10-year period.

3.6.2.4 Alternative C

Construction of the fence would have negligible surface and subsurface impacts because metal posts have a small impact area. Concentrated use impacts by livestock trailing along the fence would occur on up to 0.17 acres (approximately 5 feet on both sides of 0.14 miles of new fence). Based on impacts occurring at the current fence location, only minor erosion would be expected to occur. The fence would be constructed about 40 feet from the Basye Freight Road. Cattleguard construction on an existing road would affect surface and subsurface context in an 8 foot by 14 foot area.

Currently, the FRFO does not have policy guidance on historic roads but the 1984 Oregon Trail Management Plan for the Boise District provides guidance for the scenic and historic Oregon Trail. The Plan strives to maintain a scenic corridor of at least 0.25 miles on each side of the trail. Moving the fence within the 0.25 mile corridor would have a minor aesthetic affect.

3.6.2.5 Alternative D

Impacts from fence construction and subsequent concentrated use would be as described in Alternative C. No subsurface impacts would occur because no cattleguard would be constructed.

3.6.2.6 Alternative E

The impacts would be the same as noted in Alternative D.

3.6.3 Cumulative Impacts – Cultural and Paleontological Resources

3.6.3.1 Scope of Analysis

The analysis for the historic road is limited to the length of the road as it exists between Boise and Emmett (approximately 27 miles), and a 0.25 mile buffer on each side corresponding to the preservation corridor (approximately 8,800 acres). The length was chosen because preliminary research indicates it was a road to deliver lumber to the Boise market that was milled in Emmett. The width is guidance from the Oregon Trail Plan.

3.6.3.2 Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions

The current condition of the Basye Freight Road through BLM parcels is the result of range fires, recreational activities, livestock grazing, residential and agricultural development, and natural

weathering and deterioration that has occurred since the road was created. The condition through BLM parcels is poor due to heavy vehicular use and increased erosion. The condition through private property for the total length is undetermined at this time, but some segments no longer exist have been plowed over or otherwise impacted.

The effects of past and present actions have impacted the Basye Freight Road by parceling it out to many different land owners, bisecting it with roads, canals, ditches and fences, and by plowing over it or building on top of it. The majority of this road is privately owned, and it only passes through three BLM parcels.

The foreseeable future would predict a continuation of the impacts noted above due to increasing recreational uses from the growing residential developments that will surround this relatively small parcel of public lands. The number of private properties that the road passes through is likely to increase as land is developed and sub-divided. Remains of the road are likely to be destroyed on private property.

On BLM parcels, standard stipulations attached to the grazing permits help protect cultural resources and inadvertent discoveries of human remains. Any future proposed ground disturbing projects would trigger Section 106 of the NHPA to assess impacts to any historic properties that may be recorded in the future. Those stipulations do not apply to private parcels, but Idaho Code 27-502(1) provides protection of cairns and unmarked graves on private property.

3.6.3.3 Alternative A

Removal of grazing impacts would have a negligible cumulative benefit on 0.12 miles of the road. Recreational uses, grazing, and weathering would have a minor to moderate impact on 1.5 miles (600 acres within 0.25 miles of trail) on BLM parcels. Major adverse impacts would occur on private lands (up to 25.5 miles or 8,100 acres) because of development and agricultural uses.

3.6.3.4 Alternatives B-E

Concentrated use impacts along 0.12 to 0.14 miles of the road would have negligible cumulative adverse effects. As described under Alternative A, minor to major impacts from recreational uses, grazing, weathering, and development would occur along up to 26.86 miles of the road.

3.7 Livestock Grazing

3.7.1 Affected Environment – Livestock Management/Social and Economic Livestock Management

The current grazing system has been in place since the Cascade RMP was issued in 1988. The allotment is grazed by a single operator, Robert and Elsie Hanson (#1101175). The permit is for up to 20 head of cattle annually, from April 1 to May 31 for a total of 34 AUMs. The permit is billed as 100% Public Lands (PL). Actual use for the past ten years has averaged 33 AUMs (Appendix 4).

As a result of the 2010 Big Fire, emergency rehabilitation and stabilization measures were implemented. These measures included fencing to exclude livestock grazing from the burned

area, as well as a grazing decision, which included a temporary reduction to 17 AUMs and 10 head of cattle.

Social and Economic

Between 1970 and 2010, Ada County’s population increased 248% to 392,365 people (Table 8). Farm proprietors account for 0.5% of jobs within Ada County. BLM-administered lands account for 31.5% of all lands in the county. Taylor Grazing Act Receipt payments to Ada County’s grazing districts were \$15,470 in 2010. Because of the difference between social and economic factors at the individual and county level, there would be negligible effects at the county level and they will not be discussed further.

Table 8: Social and economic factors in Ada County, Idaho.

Population (2010)		392,365
Number Employed (2010)		263,700
Non-Farm Employment		261,938 (99.3%)
Percent unemployed (2010)		8.9%
Median Household Income (2010)		\$34,730
Farm Proprietors	Number in 2010 (Percent of Total)	1,230 (0.5%)
	Change in Employment (1988 to 2010)	-10%
Farming and Ranching income and expenses	Cash receipts from marketing livestock & products (not crops)	\$120,939,000
	Realized net income 2010	\$31,186,000

3.7.2 Environmental Consequences –Livestock Management/Social and Economic

3.7.2.1 Alternative A

The operator would need to potentially provide other forage for a 50-day period annually. Hay and pasture costs vary according to their respective markets; however, an average of private pasture prices could range between \$15 and \$22/AUM. This would result in an approximate annual cost of \$510 to \$748. Should this not be feasible, a withdrawal from the livestock business could result in an undefinable net loss in income to the operator commensurate with up to 20 head of livestock at full weight, and market prices.

3.7.2.2 Alternative B

Static or declining perennial grasses and static or increasing annual grasses would provide adequate, but likely less predictable (e.g., annual grasses produce less during below normal precipitation years), forage over the 10-year period. There would be negligible to minor impacts to the operator. Fire-related closures or reductions would have minor to major effects on annual forage availability for two or more years.

3.7.2.3 Alternative C

Impacts would be similar to Alternative B; however, increased numbers of livestock and a longer operating period would give the operator greater flexibility. The operator would need to furnish water when the canal is not flowing (likely mid-September through October). Responsibility for maintaining 1.06 miles of additional fence and a cattleguard would represent a minor long-term economic cost to the operator.

3.7.2.4 Alternative D

Increased numbers and a longer operating period would give the operator greater flexibility; however, terms and conditions related to pasture movement related to saturated soil and reduced use during even years (e.g., only 17 animals until a 40% utilization rate occurred) would have a minor to moderate effect on flexibility and potentially available AUMs. Maintenance of perennial grasses over the 10-year period would help minimize annual fluctuations in forage availability. The need to provide water would be as described in Alternative C. Responsibility for maintaining 1.06 miles of additional fence would represent a minor long-term economic cost to the operator.

3.7.2.5 Alternative E

Although permitted AUMs would be the same as alternatives B, C, and possibly D; use from November through February could require the operator to provide forage during the spring if private lands are not available because of farming or other uses. Forage production would be more predictable, but would only meet animal maintenance needs. Water hauling and maintaining 0.64 miles of new fence would have a minor long-term economic cost to the operator.

3.7.3 Cumulative Impacts – Livestock Management/Social and Economic

Because minor to moderate impacts at the operator level would not be apparent at any other level; cumulative impacts will not be addressed.

4.0 Consultation and Coordination

4.1 List of Preparers

Name	Position	Resource
Terry Humphrey	Field Office Manager FRFO	
Matt McCoy	Assistant Field Office Manager	
Dean Shaw	Archaeologist	Cultural
Mark Steiger	Botanist	Special Status Plants
Allen Tarter	Natural Resources Specialist	Riparian
Lara Hannon	Ecologist	Uplands
Martin Espil	Rangeland Management Specialist	Livestock Grazing
Michele Porter	Geographic Information System Specialist	Geographical Information Resources
Larry Ridenour	Outdoor Recreation Planner	Recreation
Joseph Weldon	Wildlife Biologist	Wildlife
Seth Flannigan	NEPA Coordinator	

4.2 List of Agencies, Organizations, and Individuals Consulted

Wings and Roots (Shoshoni-Paiute Tribe) -04/19/2012

U. S. Fish and Wildlife Service

Permittee-Robert and Elsie Hanson

Adjacent Permittees- Frank Shirts, David Little for Little Cattle Co.

4.3 Public Participation

Public comments were received from:

Gerry Robbins

Doris Schirmer

City of Eagle

John and Paula Garvin

Joan Langdon

Mary Lou Orndorff

Larry Hellhake

Ken and Linda Hamilton

Katie Fite on behalf of Western Watersheds Project

Jim Flack

Gerald Quick

5.0 Literature Cited

- Abdel-Magid, A.H., M.J. Trlica, R.H. Hart. 1987. Soil and vegetation responses to simulated trampling. *J. Range Manage.* 40:303-306.
- Anderson, J. E. and K. E. Holte. 1981. Vegetation development over 25 years without grazing on sagebrush-dominated rangeland in Southeastern Idaho. *J. Range Manage.* 34:25-29.
- Bailey, D. W., J. E. Gross, E. A. Laca, L. R. Rittenhouse, M. B. Coughenour, D. M. Swift, and P. L. Sims. 1996. Mechanisms that result in large herbivore grazing distribution patterns. *J. Range Manage.* 49:386-400.
- Belnap, J., J. H. Kaltenecker, R. Rosentreter, J. Williams, S. Leonard, and D. Eldrige. 2001. *Biological Soil Crusts: Ecology and Management*. U.S. Department of the Interior. Technical Reference 1730-2 118pp.
- Burkhardt, J. W. 1996. Herbivory in the intermountain west. Station Bulletin 58. Idaho Forest, Wildlife and Range Experimental Station, Moscow, ID.
- Ganskopp, D., T. Svejcar, F. Taylor, and J. Farstvedt. 2004. Can spring cattle grazing among young bitterbrush stimulate shrub growth. *J. Range Manage.* 57(2): 161-168.
- _____, _____, _____, _____, and K. Painter. 1999. Seasonal cattle management in 3 to 5 year old bitterbrush stands. *J. Range Manage.* 52(2):166-173.
- Garcia-Pichel, F., and J. Belnap. 1996. The microenvironments and microscale productivity of cyanobacterial desert crusts. *J. of Phycology* 32: 774-782.
- GOSC (Governor's Office of Species Conservation), Idaho Department of Fish and Game, Idaho Department of Lands, Idaho National Guard, Ted Hoffman (Non-governmental Cooperator Representative), and Bureau of Land Management. 2003. Candidate conservation agreement for slickspot peppergrass (*Lepidium papilleiferum*). Governor's Office of Species Conservation, Boise, ID. 140 pp.
- Harper, K.T., and J.R. Marble. 1988. A role for nonvascular plants in management of arid and semiarid rangeland. in: Tueller, P.T., ed. *Vegetation Science Applications for Rangeland Analysis and Management*. Kluwer Academic Publishers, Dordrecht. Pages 135-169.
- _____ and J. Belnap. In press. The influence of biological soil crusts on mineral uptake by associated seed plants. *J. of Arid Env.*
- Laycock, W. A., and P. W. Conrad. 1981. Responses of vegetation and cattle to various systems of grazing on seeded and native mountain rangelands in eastern Utah. *J. Range Manage.* 53:52- 59.

- Nielson, Axel E. 1991. Trampling the archaeological record: an experimental study. *American Antiquity* 56(3):483-503.
- Owens, M.K. and B.E. Norton. 1990. Survival of juvenile basin big sagebrush under different grazing regimes. *J. Range Manage.* 43: 132-135.
- Sheley, R. L., Petroff, J. K., eds. 1999. *Biology and management of noxious rangeland weeds.* Corvallis, OR: Oregon State University Press. pp: 85, 202, 217, 249, 261, 315, 350, 362, 401, and 408.
- Smith, J. G., and O. Julander. 1953. Deer and sheep competition in Utah. *J. Wild. Manage.* 17:101-112.
- Stubbendieck, J., S.L. Hatch, and L.M. Landbolt. 2003. *North American wildland plants: a field guide.* University of Nebraska, Lincoln, Nebraska.
- Stuth, J. W. and A. H. Winward. 1977. Livestock-deer relations in the lodgepole pine-pumice region of central Oregon. *J. Range Manage.* 30(2): 110-116.
- USDI (US Department of the Interior). 1996. *Utilization Studies and Residual Measurements, BLM Technical Reference 1734-3.* USDI, Bureau of Land Management, Denver, Colorado. 165 pp.
- _____. 1997. *Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management.* Idaho State Office, Boise, ID. BLM/ID/PT-97/002+4120 rev 8/97.
- _____. 1999. *Sampling Vegetation Attributes 1734-4.* USDI, Bureau of Land Management, Denver, Colorado. 163 pp.
- _____. 2005. *Interpreting Indicators of Rangeland Health 1734-6.* USDI, Bureau of Land Management, Denver, Colorado. 136 pp.
- _____. 2012. *Livestock Trailing Environmental Assessment, DOI-BLM-ID-B010-2012-0008-EA.* Boise District Office, Bureau of Land Management, Idaho.
- _____ and USFWS (U.S. Fish and Wildlife Service). 2009. *Conservation agreement for Idaho Bureau of Land Management existing land use plans. Agreement to provide land use plan level conservation measures for slickspot peppergrass for all applicable existing Idaho BLM land use plans signed August 27, 2009.* pp. 34.
- Young, J.A., and W.S. Longland. 1996. Impact of alien plants on great basin rangelands. *Weed Technology.* 10(2):484-391. Apr. – Jun.

6.0 Appendices

Appendix 1. Current Permit Terms and Conditions.

1. Your base property lease expires 02-28-2013. You must notify BLM in writing of any changes regarding your lease.
2. Fees are due on the date specified on the grazing bill. Failure to pay your grazing bill within 15 days of the due date specified in the bill shall result in a late fee of \$25.00 or 10 percent of the grazing bill, whichever is greater, but not to exceed \$250.00. Payment made later than 15 days after the due date shall include the appropriate late fee assessment. Upon failure to make payment within 30 days, livestock may be considered in trespass.
3. As provided in the code of federal regulations, CFR 43, 4130.6-2D, you are hereby required to submit a certified Actual Use Report within 15 days after completion of your annual grazing use. Failure to comply could result in the cancellation of your permit in whole or in part.
4. You are required to perform normal maintenance on the range improvements to which you have been assigned maintenance responsibility as per your signed cooperative agreements.
5. Livestock enclosures located within your grazing allotment are closed to all domestic grazing use. It is your responsibility to keep the fences in good repair where maintenance has been assigned to you. Permittees who willingly cause and willingly allow their livestock to graze in enclosures closed to grazing will be charged with trespass.
6. Salt and/or mineral blocks shall not be placed on public lands within one quarter mile of springs, streams, meadows, riparian habitats, or aspen stands.
7. All appropriate documentation regarding state and/or private leased lands, private lands offered for exchange-of use, and livestock control agreements must be approved by the authorized officer prior to allowing livestock to graze on public lands.
8. The turn-out date shown above would be subject to range readiness. Range readiness occurs once the soils have firmed after the spring thaw, and the physiological requirements of the plants have been met, a copy of the range readiness guidelines is available upon request.

Appendix 2. Boise District Other Terms & Conditions

1. Turn-out is subject to Boise District Range Readiness Criteria.
2. Salt/supplement shall not be placed within one-quarter (0.25) mile from any springs, streams, meadows, aspen stands, playas, special status plant populations, or water developments.
3. A trailing permit or similar authorization may be required prior to crossing public lands. Trailing activities must be coordinated with the BLM prior to initiation. Permittee would also notify any/all affected permittees in advance of trailing.
4. Livestock enclosures located within your grazing allotment are closed to all domestic grazing use.

5. All appropriate documentation regarding the control of base property/other lands (non-public)/livestock must be submitted to and approved by the authorized officer prior to initiation of grazing actions.
6. The permittee shall ensure bird ladders that meet BLM standards are installed and maintained on all water troughs and open tanks prior to annual turnout.

Appendix 3. BLM Standard and Other Terms and Conditions

1. Grazing permit or lease terms and conditions and the fees charged for grazing use are established in accordance with all the provisions of the grazing regulations now or hereafter approved by the Secretary of the Interior.
2. They are subject to cancellation, in whole or in part, at any time because of:
 - a. Noncompliance by the permittee/lessee with rules and regulations.
 - b. Loss of control by the permittee/lessee of all or a part of the property upon which it is based.
 - c. A transfer of grazing preference by the permittee/lessee to another party.
 - d. A decrease in the lands administered by the Bureau of Land Management within the allotment(s) described.
 - e. Repeated willful unauthorized grazing use.
3. They are subject to the terms and conditions of allotment management plans if such plans have been prepared. Allotment management plans must be incorporated in permits or leases when completed.
4. Those holding permits or leases must own or control and be responsible for the management of livestock authorized to graze.
5. The BLM may require counting and/or additional or special marking or tagging of the livestock authorized to graze.
6. The permittee's/lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.
7. Grazing permits or leases are subject to the nondiscrimination clauses set forth in Executive Order 11246 of September 24, 1964, as amended. A copy of this order may be obtained from the BLM.
8. Livestock grazing use that is different from that authorized by a permit or lease must be applied for prior to the grazing period and must be filed with and approved by the BLM before grazing use can be made.
9. Billing notices are issued which specify fees due. Billing notices, when paid, become a part of the grazing permit or lease. Grazing use cannot be authorized during any period of delinquency in the payment of amounts due, including settlement for unauthorized use.
10. The holder of this authorization must notify the authorized officer immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (cultural items), stop the activity in the area of the discovery and make a reasonable effort to protect the remains and/or cultural items.
11. Grazing fee payments are due on the date specified on the billing notice and must be paid in full within 15 days of the due date, except as otherwise provided in the grazing permit or lease. If payment is not made within that time frame, a late fee (the greater of \$25 or 10 percent of the amount owed but not more than \$250) would be assessed.

12. Permittees or lessees shall provide reasonable administrative access across private and leased lands to the Bureau of Land Management for the orderly management and protection of the public lands.
13. Member of, or Delegate to, Congress or Resident Commissioner, after his election or appointment, or either before or after he has qualified, and during his continuance in office, and no officer, agent, or employee of the Department of the Interior, other than members of Advisory committees appointed in accordance with the Federal Advisory Committee Act (5 U.S.C. App.1) and Sections 309 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) would be admitted to any share or part in a permit or lease, or derive any benefit to arise therefrom; and the provisions of Section 3741 Revised Statutes (41 U.S.C. 22; 18 U.S.C. Sections 431-433, and 43 CFR Part 7), enter into and form a part of a grazing permit or lease, so far as the same may be applicable.

Appendix 4. McPherson Individual Allotment Actual Use (1996-2010)

YEAR	CLASS	NUMBER	ON DATE	OFF DATE	AUMS
1996	C	20	4/15/1996	5/30/1996	32
1997	C	20	4/11/1997	5/31/1997	32
1998	C	20	4/12/1998	5/31/1998	32
1999	C	20	4/14/1999	5/25/1999	32
2000	C	20	4/14/2000	5/31/2000	32
2001	C	20	4/12/2001	5/29/2001	32
2002	C	25	4/11/2002	5/31/2002	42
2003	C	20	4/11/2003	5/31/2003	34
2004	C	20	4/11/2004	5/31/2004	34
2005	C	20	4/15/2005	5/31/2005	31
2006	C	20	4/18/2006	5/31/2006	29
2008	C	20	4/15/2008	5/31/2008	31
2010	C	20	4/15/2010	5/31/2010	31

Appendix 5. McPherson Individual Allotment Monitoring Plan

The following is a description of monitoring practices that would be implemented to measure progress toward meeting the Standards for Rangeland Health and RMP objectives. This monitoring plan was developed in accordance with the Idaho BLM Draft Monitoring Strategy for Rangelands (2007). Monitoring practices are divided into two categories:

- *Implementation Monitoring* - Conducted more frequently to determine adherence to Annual Indicator Criteria/Annual Objectives.
- *Effectiveness Monitoring* - Used to make comparisons of resource conditions across years (i.e., trends). Trends indicate whether significant progress is made toward meeting standards in allotments which are not currently meeting one or more standards. Coordination with permittees, local and state agencies, and the interested public would occur during Effectiveness Monitoring site (key area) establishment and data collection.

Technical Reference 1734-4 *Sampling Vegetation Attributes* (USDI 1999) defines key areas as follows: "key areas are indicator areas that are able to reflect what is happening on a larger area as a result of on-the-ground management actions. A Key Area should be a representative sample of a large stratum, such as a pasture, grazing allotment, wildlife habitat area, herd management area, watershed area, etc., depending on the management objectives being addressed by the study."

Determination of Key Areas would take the following factors into account:

- Known livestock and wildlife use patterns
- Proximity to water or other range developments such as fences
- Topographic position
- Ecological site type
- Vegetation type
- Historic disturbance (i.e., past fire or vegetation treatments)

Implementation Monitoring (Short-Term/1-3 years)

Special Status Plants: Slickspot peppergrass populations would be monitored each year for habitat disturbance (livestock trampling). A line-point or step-point method would be used to assess intensity of trampling within these populations.

Upland Utilization:

Upland utilization and/or use pattern mapping would include herbaceous and browse removal methods. Herbaceous removal would be measured using Key Species or Height-Weight methods. Upland utilization would be conducted annually during and/or at the end of the growing period or grazing period (whichever is later) in the allotment's East and West pastures. Additionally, seasonal utilization would be conducted as needed during the grazing period (22 days into the grazing period) when key species are actively growing. When utilization estimates approach the established maximum levels (40%), a statistical test would be applied. Standard deviation and confidence intervals would be calculated for utilization data at $p \leq 0.1$.

Actual Use: Actual use records would be compiled from the actual use reports submitted by the grazing permittees in accordance with permit terms and conditions.

Effectiveness Monitoring (Long-Term/>3 years)

Special-Status Plants: The IDFG Heritage Program would monitor slickspot peppergrass populations on a three year cycle. Data related to total plant numbers, habitat condition, and age-class structure would be collected.

Upland Vegetation Trend: A nested plot frequency transect (NPFT), photo plot (PP), or other BLM approved monitoring method(s) would be implemented to study plant community trends. Data would be collected every 4 to 5 years in accordance with TR 1734-4 (USDI 1999) or other appropriate references and manuals.

Rangeland health would be assessed prior to the next ten-year permit renewal process in accordance with TR 1734-6 (USDI 2005), and may be periodically assessed at other times.

Monitoring Data Review

- Implementation monitoring data would be reviewed as it is collected during each grazing season to determine compliance with Annual Indicator Criteria. If Annual Indicator Criteria are reached or exceeded, the authorized officer would make the necessary grazing management modifications such as redistributing or removing livestock from the pasture or allotment.
- Effectiveness monitoring data would be formally reviewed by a BLM interdisciplinary team prior to the expiration of the grazing permit. However, if informal review of effectiveness monitoring data (e.g., at the 5-year mark) reveals resource issues, a formal review may be completed sooner. The team and authorized officer would determine and implement necessary modifications to grazing management to ensure significant progress is made toward meeting Standards for Rangeland Health.