United States Department of the Interior Bureau of Land Management

Environmental Assessment No. ID-230-2007-EA-3301

January 17, 2008

Permit Renewal for Deer Creek Allotment #80210

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Permit Renewal for Deer Creek Allotment #80210 Pre-Decisional Environmental Assessment No. ID-230-2007-EA-3301

1.0 PURPOSE & NEED

1.1 Introduction:

This Environmental Assessment (EA) has been prepared to disclose and analyze the environmental consequences of renewing the term grazing permit on Deer Creek Allotment as proposed by the Bureau of Land Management. This EA is a site-specific analysis of potential impacts that could result with implementation of the proposed action or an alternative to the proposed action. The EA assists the BLM in project planning and ensuring determination as to whether any "significant" impacts could result from the analyzed actions. "Significance" is defined by NEPA and as described in regulation 40 CFR 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact" (FONSI). If the decision maker determines that this project has "significant" impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record may be signed for the EA approving the selected alternative, whether the proposed action or another alternative. A Decision Record (DR), including a FONSI statement, documents the reasons why implementation of the selected alternative would not result in "significant" environmental Impact (effects) beyond those already addressed in the 1981 Sun Valley Grazing Environmental Impact Statement.

1.2 Background:

The Bureau of Land Management (BLM) is proposing to renew the livestock grazing permit in Deer Creek Allotment in accordance with the Fundamentals of Rangeland Health (43 CFR Subpart 4180). The term grazing permit for Deer Creek Allotment is currently held by Deer Creek Ranch, Inc., it identifies 299 active cattle animal unit months (AUMs) and 136 suspended AUMs for an annual season of May 15 to October 31. Through this environmental analysis, a final decision will be rendered which will supersede the existing grazing use permit for Deer Creek Allotment and result in a specific season of use, number and kind of livestock, AUMs, and management plan. Term grazing permits are issued for a ten-year period.

Livestock grazing use within Deer Creek Allotment was analyzed in the 1981 Sun Valley Grazing Environmental Impact Statement (EIS). Overall for the Sun Valley planning unit, the EIS resulted in a 16 percent decrease in AUMs from the pre-EIS authorized grazing use of 36,476 AUMs. In spite of this overall decrease for the Sun Valley planning area, conditions on the Deer Creek Allotment did not warrant any adjustment to AUMs or grazing season and the active preference remained at 299.

Per the 43 Code of Federal Regulations (43 CFR), Subpart 4180 – Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration, the BLM is required to assess resource conditions on the allotment in conjunction with Technical Reference 1734-6 *Interpreting Indicators of Rangeland Health* (2000) and the final *Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management* (1997). Rangeland Health Standards and Guidelines are used as management goals by the BLM for the betterment of the environment, protection of cultural resources, and sustained productivity of the range. They were developed with the specific intent of providing for the multiple use of the public lands. The regulations direct that existing grazing management be modified through the term permit to ensure that

rangeland health standards are achieved. Ultimately, the intent of the fundamentals of rangeland health and the Idaho standards is to ensure that the resources within the allotment are meeting the Standards for Rangeland Health or are making significant progress toward meeting the Standards.

A Rangeland Health field evaluation was conducted in Deer Creek Allotment in June 2005. Findings of the field evaluation were documented in the Rangeland Health Assessment which was sent out for public review and comment on December 16, 2005. No public comments were received in regard to the Rangeland Health Assessment.

Based on the 2005 field assessment, the allotment was evaluated to determine if it was meeting the Standards for Rangeland Health. The evaluation of the field assessment showed that the allotment was meeting conditions for several standards but not meeting for others. This EA will assess proposed management actions to be implemented in the permit renewal to better meet these conditions in the future.

The Standards are:

Standard 1: Watersheds -Watersheds provide for the proper infiltration, retention, and release of water appropriate to soil type, vegetation, climate, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow.

Standard 2: Riparian Areas and Wetlands – Riparian areas and wetlands are in properly functioning condition appropriate to soil type, climate geology, and landform to provide for proper nutrient cycling, and energy flow.

Standard 3: Stream Channel/Floodplains - Stream channels and floodplains are properly functioning relative to the geomorphology and climate to provide for proper nutrient cycling, hydrologic cycling and energy flow.

Standard 4: Native Plant Communities - Healthy, productive, and diverse native animal habitat and populations of native plants are maintained or promoted as appropriate to soil type, climate, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow.

Standard 5: Seedings - Rangelands seeded with mixtures, including predominately non-native plants, are functioning to maintain life form diversity, production, native animal habitat, nutrient cycling, energy flow, and the hydrologic cycle.

Standard 6: Exotic Plant Communities, other than Seedings - Exotic plant communities, other than seedings, will meet minimum requirements of soil stability and maintenance of existing native and seeded plants. These communities will be rehabilitated to perennial communities when feasible cost effective methods are developed.

Standard 7: Water Quality - Surface and ground water comply with the Idaho Water Quality Standards.

(NOTE: Standard 7 does not apply to Deer Creek Allotment.)

Standard 8: Threatened and Endangered Plants and Animals - Habitats are suitable to maintain viable populations of threatened and endangered, sensitive, and other special status species.

A formal determination by the Shoshone Field Manager has been made in regard to Deer Creek Allotment as to whether each standard is being met as required by federal regulation following a field review for Idaho Standards for Rangeland Health and analysis of available monitoring data. Table 1.1 shows the summary of standards and guidelines. The guidelines, if applicable, direct the selection of grazing management practices and/or livestock management facilities when progress is necessary for attainment or maintenance of the standards.

Applicable Rangeland Health Standards	Meeting/Not Meeting Standard	Applicable Guidelines That Need To Be Addressed*
Standard 1 – Watersheds		
	Meeting	3,4
Standard 2 – Riparian Areas	Not Meeting; Past Livestock	
and Wetlands	Grazing Management Practices	5, 7
	are a Factor	
Standard 3 – Stream	Not Meeting; Past Livestock	
Channel/Floodplains	Grazing Management Practices	5, 7
	are a Factor	
Standard 4 – Native Plant		
Communities	Meeting	9, 12
Standard 5 – Seedings	Does not apply to this	
	allotment	n/a
Standard 6 – Exotic Plant		
Communities, other than	Does not apply to this	n/a
Seedings	allotment	
Standard 7 – Water Quality	Does not apply to this	
	allotment; no water quality	n/a
	issues have been identified in	
	this allotment by the State of	
	Idaho, Division of Water	
	Quality.	
Standard 8 – Threatened and		
Endangered Plants and	Meeting	11, 12
Animals		

 TABLE 1.1 Summary of Rangeland Health Assessment Determination

• Current livestock management practices do not conform to the identified Guidelines. Refer to Appendix A for Guidelines per the *Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management*.

Guidelines direct the selection of grazing management practices on the allotment and are outlined in the *Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management* (refer to Appendix A for a list of the Guidelines). These Guidelines, or grazing management practices, are intended to be implemented on the allotment through the term permit to promote significant progress toward, or the attainment and maintenance of the Rangeland Health Standards. Although it has been determined that only Standards 2 and 3 are "not meeting", all of the above-identified guidelines need to be implemented to continue to maintain rangeland health in regard to Standards 1, 4, and 8, as well as to attain progress toward meeting Standards 2 and 3. Therefore, Deer Creek Allotment was determined to not conform to Guidelines 3, 4, 5, 7, 9, 11and 12 insofar as current grazing management practices are concerned. The permittee and current authorization is shown in Table 1.2.

Current Permittees	Livestock Number & Kind	Grazing Begin -End	% PL ¹	Active AUMs ²	Suspended AUMs	Total AUMs
Deer Creek Ranch						
Inc.	137 cattle	5/15 to 10/31	39	299	136	435

 TABLE 1.2 Current Grazing Permit Authorization

1.3 Need for the Proposed Action:

The current term grazing permit for Deer Creek Allotment does not incorporate Rangeland Health Standards. The underlying need for the proposed action is to incorporate Idaho Rangeland Health Standards into the management of the allotment. Another need is to move the existing condition of specific resources in the allotment toward meeting or making significant progress toward meeting the Idaho Standards for Rangeland Health and to ensure that resources which currently meet the standard continue to maintain rangeland health standards.

A Rangeland Health evaluation was conducted on Deer Creek Allotment in June 2005 and was documented in a subsequent assessment in December 2005. The Standards for Rangeland Health and the findings of the field evaluation, as applied in the State of Idaho, are considered in this EA and the current permit would be renewed by incorporating grazing management practices consistent with the Fundamentals of Rangeland Health Standards and Guidelines, into the management of the allotment.

1.4 Purpose(s) of the Proposed Action:

Based on the mandates of several authorities,³ the purpose of the action is to continue authorizing livestock grazing use in Deer Creek Allotment, consistent with the laws and regulations governing the activity. According to the National Environmental Policy Act (NEPA), an environmental assessment is necessary to determine the manner and degree to which issuing grazing permits would, based on existing information, continue to provide a reasonable balance between competing resources values and meeting the requirements for Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration required by 43 Code of Federal Regulations, Subpart 4180. Therefore, there is a need to determine what grazing authorization would be made and what management practices in the allotment would be established that would move existing resource conditions, i.e., Standards 2 and 3, toward meeting or making significant progress toward meeting the Idaho Standards for Rangeland Health.

¹ %PL = Percent Public Land, accounts for private or State land acreage within an allotment and is used for billing purposes.

 $^{^{2}}$ AUMs = Animal Units Months, the equivalent of forage consumed by one cow and one calf for one month.

³ (a) The Taylor Grazing Act of June 28, 1934 as amended (43 U.S.C. 315, 315a through 315r); (b) The Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) as amended by the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.): (c) Executive orders transfer land acquired under the Bankhead-Jones Farm Tenant Act of July 22, 1937, as amended (7 U.S.C. 1012), to the Secretary and authorize administration under the Taylor Grazing Act; (d) The Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.); and (e) Public land orders, Executive orders, and agreements authorize the Secretary to administer livestock grazing on specified lands under the Taylor Grazing Act or other authority as specified. [43 FR 29067, July 5, 1978, as amended at 49 FR 6449, February 21, 1984: 49 FR 12704, March 30, 1984; 50 FR 45827, November 4, 1985; 61 FR 4227, February 5, 1996]

1.5 Conformance with BLM Land Use Plan(s):

The action of re-issuing a term grazing permit for the allotment would not result in a change in the scope of resource uses or a change in the terms, conditions, and decisions of the EIS and would be in conformance with the 1981 Sun Valley Grazing Environmental Impact Statement and the Sun Valley Management Framework Plan. Establishing management practices and the appropriate grazing authorization through the incorporation of the Fundamentals of Rangeland Health and Guidelines would continue to allow allotment management to comply with the long-range direction outlined in the EIS.

The Proposed Action and the Alternative described herein are in conformance with the following objectives stated on page 1-1 of the Sun Valley Grazing EIS:

- 1. To increase livestock forage production;
- 2. To maintain or improve wildlife habitat;
- 3. To establish and/or maintain a diverse vegetation composition of grasses, forbs, and shrubs;
- 4. To protect and provide for the needs of threatened, endangered, or sensitive plants and animals; and
- 5. To maintain or improve the visual quality of the landscape.

1.6 Relationship to Statutes, Regulations, or other Plans:

The aforementioned authorities (referenced in footnote 3) mandate or allow the BLM to authorize livestock grazing on public lands as part of the multiple-use management of natural resources. Through these authorities and the 43 Code of Federal Regulations Part 4100, the BLM manages allotment resources and issues grazing permits and leases, hereinafter referred to as permits, for a term not to exceed 10 years.

2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION

2.1 Introduction:

These alternatives were developed based upon issues identified through internal scoping as well as public scoping and involvement. The alternatives were designed to address one or more of the identified issues as well as provide the opportunity for specific comparisons on which the decision maker can base a decision.

2.2 Alternative A – Proposed Action:

This is the preferred alternative.

Issue the grazing permit for a ten-year term which authorizes livestock use in Deer Creek Allotment and incorporates the Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration (43 CFR 4180). This alternative describes the on-the-ground management actions that the BLM proposes to implement and represents the proposed Allotment Management Plan (AMP) and associated Management Guidelines. Under this alternative, a grazing system would be established in which the allotment would be grazed under a three-year cycle, i.e., the allotment would be grazed two years and entirely rested in the third year.

Deer Creek Allotment is proposed to be managed with the kind of livestock, number, grazing use period, preference level, and grazing system described in Table 2.1.

Livestock Number	Grazing Begin –	%	Active	Suspended	Total	Grazing System (7)		
& Kind (1)	End Dates (2)	PL (3)	AUMs (4)	AUMs (5)	AUMs (6)	Year 1	Year 2	Year 3
168 Cattle	6/15 to 10/31	39%	299	136	435	6/15 to 10/31	6/15 to 10/31	REST entire allotment (Year 4 would repeat Year 1)

TABLE 2.1 Proposed Action Grazing Treatment

Grazing Management Actions under the Proposed Action.

The proposed grazing management actions are designed to help the allotment move toward meeting Rangeland Health Standards for riparian areas and stream channels, and to continue to maintain those Standards that the allotment is currently meeting.

The grazing permit would be issued based on the active preference shown in Table 2.1 and would include standard management practices such as salting, range readiness, required maintenance of improvements prior to commencing grazing use, billing, payment of fees, and actual use reporting.

Management actions would include:

1) Grazing within riparian areas would be managed to attain and maintain proper functioning condition. Management would include leaving adequate perennial herbaceous and woody vegetation by the end of the growing season to protect riparian areas from erosion, maintain streambank integrity, provide for sediment catchment and allow for diversity in vegetation structure and age class. A maximum four-inch stubble height on key hydric plant species would

be allowed by the end of the growing season for stream reaches rated functional at-risk. In the event that riparian areas do not have key hydric plant species, these areas would be managed so that streambank alteration does not exceed 20 percent of the streambank in key areas. Livestock would be moved to the next pasture per scheduled move dates addressed in the annual grazing plan or when the limit for stubble height or streambank alteration is reached, whichever occurs first. If all scheduled pastures have been used as outlined in the annual grazing plan and riparian use limits have been reached, then livestock would be removed from the allotment. Key areas would be mutually agreed upon and established in conjunction with the permittee and any other individuals who express an interest.

2) Utilization of native grasses, i.e., bluebunch wheatgrass (*Pseudoroegneria spicata* spp. *spicata*), Idaho fescue (*Festuca idahoensis*), and needlegrass (*Achnatherum nelsonii*), would be limited to 40 percent of current growth in key areas, i.e., up to one-half mile from water features, including perennial/intermittent streams, springs, ponds, or troughs. Livestock would be moved to the next pasture per scheduled move dates addressed in the annual grazing plan or when use limits on key species has been reached, whichever occurs first. If all scheduled pastures have been used as outlined in the annual grazing plan and upland use limits have been reached, then livestock would be removed from the allotment. Utilization would be conducted based on the Height-Weight methodology described in Interagency Technical Reference 1734-3, *Utilization Studies and Residual Measurements*.

Key areas would be mutually agreed upon and established in conjunction with the permittee and any other interested parties. Utilization would be conducted based upon the Height-Weight methodology on the key grass species mentioned in the previous paragraph and would be done periodically in the allotment while cattle are actively grazing and/or immediately after cattle are removed from the allotment.

Actual use would be obtained at the end of the season.

Allotment Monitoring under the Proposed Action.

Upland and riparian monitoring utilization would be conducted at the discretion of the BLM during the active use period. Utilization mapping based upon key forage plant method would be done periodically after cattle are removed from the allotment.

In addition to the upland and riparian monitoring, nested frequency studies would continue to be done at the key study site presently located within Deer Creek Allotment. At a minimum, this site would be read once within the 10-year permit renewal period. Nested frequency studies would be conducted based on the trend study methodology described in Technical Reference 4400-4, *Rangeland Monitoring* (May 1985).

Multiple Indicators Monitoring (MIM) would be conducted on streamside habitats in the allotment for the purpose of monitoring livestock grazing use per Interagency Technical Bulletin 2007-01 *Monitoring Streambanks and Riparian Vegetation – Multiple Indicators* (April 2007). This monitoring protocol evaluates long-term trend of livestock grazing management practices to determine whether the vegetation and streambanks are responding to management guidelines as anticipated. At a minimum, MIM would be read once within the 10-year permit renewal period.

Allotment Improvements under the Proposed Action.

No range improvements are proposed under this alternative.

2.3 Alternative B – No Action:

Under this alternative, there would be no change from current management; the terms and conditions of the permit, as well as the grazing system would remain the same as it is presently. Under current management there is no rotation schedule and the grazing system is season-long, i.e., there is no deferment or incorporated rest and grazing use can occur for the duration of the permitted grazing dates on an annual basis.

The permit for Deer Creek Allotment would be renewed for the same livestock number, kind, grazing use period, and grazing system described in Table 2.2.

Livestock Number & Kind (1)	Grazing Begin – End Dates (2)	% PL (3)	Active AUMs (4)	Suspended AUMs (5)	Total AUMs (6)	Grazing System (7)
137 Cattle	5/15 - 10/31	39%	299	136	435	Annual Use

TABLE 2.2 No Action Grazing Treatment

Grazing Management Actions under the No Action Alternative.

Current management would continue without the implementation or incorporation of any new management actions.

The grazing permit would be issued based on the active preference shown in Table 2.2 and would include standard management practices such as salting, range readiness, required maintenance of improvements prior to commencing grazing use, billing, payment of fees, and actual use reporting.

Range Monitoring under the No Action Alternative.

Nested frequency studies would continue to be done at the key study site presently located within Deer Creek Allotment. At a minimum, this site would be read once within the 10-year permit renewal period. Nested frequency studies would be conducted based on the trend study methodology described in Technical Reference 4400-4, *Rangeland Monitoring* (May 1985).

Multiple Indicators Monitoring (MIM) would be conducted on streamside habitats in the allotment for the purpose of monitoring livestock grazing use per Interagency Technical Bulletin 2007-01 *Monitoring Streambanks and Riparian Vegetation – Multiple Indicators* (April 2007). This monitoring protocol evaluates long-term trend of livestock grazing management practices to determine whether the vegetation and streambanks are responding to management guidelines as anticipated. At a minimum, MIM would be read once within the 10-year permit renewal period.

Range Improvements under the No Action Alternative.

No range improvements are proposed under this alternative.

Permit Terms/ Management Practice	Alternative A – Proposed Action	Alternative B – No Action
AUMs	299	299
Season of Use	6/15 - 10/31	5/15 - 10/31
Grazing System	Complete rest of entire	Grazing use can
	allotment one year in three	occur
		on an annual
		basis
Upland Utilization	Up to 40% use on key perennial	
Standard	native grasses	None
Riparian Management	Maximum 4-inch stubble height	
Actions	on greenline vegetation & no greater than 20%	None
	streambank alteration in key areas	

TABLE 2.3 Summary Comparison of Alternatives

3.0 AFFECTED ENVIRONMENT

3.1 Introduction:

This chapter presents the potentially affected existing environment (i.e., the physical, biological, social, and economic values and resources) of the impact area as identified in the Interdisciplinary Team Analysis Record Checklist found in Appendix B and presented in Chapter 1 of this assessment. This chapter provides the baseline for comparison of impacts/consequences described in Chapter 4.

3.2 General Setting:

Deer Creek Allotment contains approximately 3,579 public land acres. Other intermingled land ownership within the allotment boundary includes approximately 2,995 acres of private land and 698 acres of State land. Although the allotment is managed as a single unit allotment, the boundary of Deer Creek is not contiguous (refer to map). It ranges in elevation from approximately 5,600 feet to 7,300 feet. Slopes in the allotment range from 25 to 50 percent.

Prior to the current permittee, the grazing permit on Deer Creek Allotment was held by the Schmidt Brothers under the name of Deer Creek Company. In July 1990, New Deer Creek Ranch, Inc., acquired 206 active and 99 suspended AUMs, and in February 1991, they acquired the remaining 93 active and 37 suspended AUMs. In 1996, the name of New Deer Creek Ranch, Inc., was changed to Deer Creek Ranch, Inc. The current livestock operator has taken non-use on the allotment since 2000.

Existing range improvements include a developed spring in T3N, R17E, sections 13 and 24, known as Cow's Tail Spring. The development was constructed in 1968 and provides water to two other troughs; one is located roughly 250 feet north of the spring and the second is located approximately 2,400 north of the spring. Other range improvements include approximately 2.2 miles of boundary fence along the west side of the allotment in the vicinity of Imperial Gulch and Deer Creek.

BLM owns the water rights for the springs and streams on public land within the allotment for a specified amount of livestock and wildlife use.

3.3 Critical Elements of the Human Environment and Other Resources/Issues Brought Forward for Analysis:

Critical elements of the human environment identified in Appendix B are subject to requirements specified in treaty, statute, regulation, or executive order and must be considered in all environmental assessments. Other important elements of the human environment, also identified in Appendix B, are not necessarily critical elements, but are nonetheless important to consider in assessing all impacts of the proposal. Elements which are present in the allotment and are likely to be affected are discussed in this section.

Critical and important elements that are checked as "NP" or "NI" (i.e., Not Present or No Impact) were considered during the environmental analysis process but were identified as such because they are either not present within the allotment being analyzed or are present but not affected to a degree that detailed analysis is required. Those resources determined to be potentially impacted on the Interdisciplinary Team Analysis Record Checklist (Appendix B) which will be discussed further include: Floodplains; Invasive, Non-native Plant Species; Threatened, Endangered or Candidate Animal Species; Wetlands/Riparian Zones; Rangeland Health Standards and Guidelines; Livestock Grazing; Woodland/Forestry; Vegetation including Special Status Plant

Species other than FWS Candidate or Listed Species; Fish and Wildlife including Special Status Animal Species other than FWS Candidate or Listed Species, e.g., Migratory Birds; Soils; and Recreation.

3.3.1 Resource 1: Soils. Several soils are located within Deer Creek Allotment, including: Povey, Earcree, Winu, Moonstone, Elk Creek, Vitale, Milligan, Gaib, Lockman, Ketchum and Rock Outcrop.

Povey soils are very gravelly silt loams found on north- and east-facing mountainsides below 7,500 feet on 30 to 60 percent slopes and on open areas on north- and east-facing mountainsides from 6,000 to 9,250 feet on 15 to 60 percent slopes. Parent material is colluvium derived mainly from quartzitic sandstone and related rock. The soil is deep, well drained, and moderately permeable. Runoff is rapid to very rapid and hazard of water erosion is severe to very severe. Povey soils make up approximately 18% of the allotment (all percentages are for BLM land only).

Earcree soils are gravelly coarse sandy loam found on north- and east-facing mountainsides below 7,500 feet on 30 to 60 percent slopes. Parent material is colluvium and slope alluvium over residuum derived from granite. The soil is very deep, well drained, with moderately rapid permeability. Runoff is very rapid and hazard of water erosion is very severe. Earcree soils make up approximately 5% of the allotment.

Winu soils are stony loams found on north- and east-facing mountainsides on 30 to 60 percent slopes. Parent material is colluvium derived from mainly from latite, andesite, and basalt. The soil is moderately deep, well drained, with moderately slow permeability. Runoff is very rapid and hazard of water erosion is very severe. Winu soils make up approximately 2% of the allotment.

Moonstone soils are coarse sandy loams found on south- and west-facing mountainsides on 30 to 60 percent slopes. Parent material is colluvium and residuum derived from granite. The soil is moderately deep, well drained, with moderately rapid permeability. Runoff is rapid and hazard of water erosion is very severe. Moonstone soils make up approximately 2% of the allotment.

Elk Creek soils are loam found on concave areas on south- and west-facing mountainsides on 30 to 60 percent slopes. Parent material is residuum derived from andesite and basalt. The soil is moderately deep, well drained, with moderately slow permeability. Runoff is very rapid and hazard of water erosion is very severe. Elk Creek soils make up approximately 1% of the allotment.

Vitale soils are very gravelly loam found on south- and west-facing mountainsides on 30 to 60 percent slopes. Parent material is residuum and colluvium derived mainly from quartzitic sandstone and related rock. The soil is moderately deep, well drained, with moderate permeability. Runoff is very rapid and hazard of water erosion is very severe. Vitale soils make up approximately 17% of the allotment.

Milligan soils are very cobbly loam found on south- and west-facing mountainsides on 30 to 60 percent slopes. Parent material is colluvium derived mainly from quartzitic sandstone and related rock. The soil is moderately deep, well drained, with moderately rapid permeability in the upper 18 inches and very rapid below this depth. Runoff is very rapid and hazard of water erosion is very severe. Milligan soils make up approximately 3 to 4% of the allotment.

Gaib soils are very gravelly loam found on convex areas on south- and west-facing mountainsides on 30 to 60 percent slope from 5,000 to 6,500 feet. Parent material is residuum derived from andesite, latite, and basalt. The soil is shallow, well drained, and moderately slow permeability. Runoff is very rapid and hazard of water erosion is very severe. Gaib soils make up approximately 15% of the allotment.

Lockman soils are gravelly coarse sandy loam found on 30 to 60 percent slopes on north- and east-facing mountainsides at elevations below 7,500 feet and all aspects of mountainsides at elevations above 7,500 feet. Parent material is colluvium and alluvium over residuum derived from granite. The soil is very deep, well drained, with moderately rapid permeability. Runoff is very rapid and hazard of water erosion is very severe. Lockman soils make up approximately 2% of the allotment.

Ketchum soils are very gravelly loam found on north- and east-facing mountainsides on 30 to 60 percent slopes from 6,000 to 8,500 feet. Parent material is colluvium derived mainly from quartzitic sandstone and related rock. The soil is deep, well drained, with moderately rapid permeability. Runoff is very rapid and hazard of water erosion is very severe. Ketchum soils make up approximately 6% of the allotment.

Rock Outcrop can be found on ridgetops and convex areas of the landscape and it consists of exposed basalt. Rock Outcrop makes up approximately 9% of the allotment.

The remainder of the allotment consists of contrasting inclusions or other soils types in minor amounts.

3.3.2 Resource 2: Vegetation, including Invasive, Non-native Species;

Woodland/Forestry; and Special Status Plant Species. The allotment is dominated by shrub steppe plant communities, primarily comprised of mountain big sagebrush, bluebunch wheatgrass, and Idaho fescue. The allotment also has approximately 140 acres of aspen and approximately 430 acres of Douglas-fir forest. Currently, concerns with aspen stands in the allotment include increasing conifer encroachment and declining aspen cover and regeneration.

Cheatgrass is present in low amounts in the sagebrush steppe plant communities in the allotment and was most typically encountered during the rangeland health field assessment on some of the drier, warmer south slopes. Diffuse knapweed is abundant along the Democrat Gulch road and is spreading along the trail in Lambs Gulch. Canada thistle and bull thistle were documented in an unnamed tributary to Lambs Gulch during the rangeland health field assessment.

Deer Creek Allotment is within the known range of bugleg goldenweed (*Haplopappus insecticruris*), a BLM Sensitive plant and there are three known subpopulations on public lands within the allotment. Potential habitat likely exists elsewhere within the allotment. Bugleg goldenweed is a perennial yellow composite that occurs in gravelly to heavy clay soils at the edge of ephemerally moist herbaceous meadows, swales, and weak drainages in bottomlands or hillsides, saddles dominated by herbaceous vegetation, the drier edges of seeps, and occasionally on stony sites. These sites usually intergrade into drier sagebrush communities or into the edges of conifer-aspen woodlands, with bug-leg goldenweed occurring between the moist communities dominated by sedges or rushes and the uplands where shrubs dominate

Observations and inventories for bug-leg goldenweed indicate that this species is tolerant of livestock grazing. Shallow disturbances such as hoof-scraping may be tolerated but deep

disturbance such as livestock trailing would kill plants. There is some concern about mechanical impacts from livestock use on the plant and its habitat because livestock tend to concentrate their use primarily in the areas where bug-leg goldenweed occurs. Concentrated use could contribute to bank destabilization and degradation of either riparian or upland plant communities which could damage existing populations as well as impact the quality of potential habitat.

In August 1991, the Democrat fire occurred near the head of Democrat Gulch in T2N, R17E, section 11, and burned approximately a total of seven public land acres. The area was aerially seeded with bluebunch wheatgrass, intermediate wheatgrass, 'Luna' publics wheatgrass, 'Eski' sanfoin, and sagebrush. Two other smaller fires occurred in the allotment in 1957 and 1960.

There are four ecological sites that comprise the majority of Deer Creek Allotment:

- North Slope Loamy 16-20" Mountain Big Sagebrush/Idaho Fescue;
- South Slope Stony 12-16"Mountain Big Sagebrush/Bluebunch Wheatgrass;
- North Slope Loamy 18-24" Mountain Big Sagebrush/Mountain Snowberry/Idaho Fescue;
- Fractured South Slope 12-16"Mountain Big Sagebrush/Bluebunch Wheatgrass.

Another two ecological sites are present but encompass considerably less area in the allotment:

- South Slope Loamy 16-20"Mountain Big Sagebrush/Idaho Fescue; and
- Douglas Fir/Mountain Snowberry 22" plus.

The climate of all the above sites is characterized by cool summers and cold winters, with snow cover most of the winter. About 60 to 65 percent of the moisture comes during the dormant period (October to April), except for the Douglas Fir/Mountain Snowberry 22" plus, when most precipitation comes as early as September and as late as early May. Depending upon the aspect and elevation, the optimum plant growth period is anywhere from late April through mid-August.

Appendix C contains a species list of all plants mentioned in this document.

The Natural Resources Conservation Service (NRCS) site guide description for the North Slope Loamy 16-20" Mountain Big Sagebrush/Idaho Fescue states that visually the dominant vegetation of the site is Idaho fescue, bluebunch wheatgrass, and mountain big sagebrush. The potential natural plant community for grasses on this site includes Idaho fescue, bluebunch wheatgrass, with lesser amounts of prairie junegrass, Nevada bluegrass, Columbia needlegrass, and Thurber needlegrass. Forbs in the potential natural plant community include arrowleaf balsamroot, tapertip hawksbeard, lupine, and geranium, with lesser amounts of aster, buckwheat, milkvetch, one-flower helianthella, stoneseed, and phlox. Shrubs in the potential natural plant community include mountain big sagebrush, with lesser amounts of mountain snowberry, antelope bitterbrush, wild rose, currant, and chokecherry.

Current vegetation present on the North Slope Loamy site includes primarily bluebunch wheatgrass, Idaho fescue, lupine, arrowleaf balsamroot, mountain big sagebrush, and rubber rabbitbrush. Also present is oniongrass, Sandberg bluegrass, big bluegrass, violet, waterleaf, yarrow, pussytoes, tapertip hawksbeard, groundsel, long-leaf phlox, blue-eyed Mary, knotweed, mountain snowberry, and green rabbitbrush.

The NRCS site description for the South Slope Stony 12-16" Mountain Big Sagebrush/Bluebunch Wheatgrass states that visually the dominant vegetation of this site is mountain big sagebrush and bluebunch wheatgrass. The potential natural plant community for grasses on this site includes

bluebunch wheatgrass, with lesser amounts of Nevada bluegrass, Sandberg bluegrass, bottlebrush squirreltail, basin wildrye, and sedge. Forbs in the potential natural plant community include tapertip hawksbeard, arrowleaf balsamroot, and lupine, with lesser amounts of buckwheat, phlox, hooker balsamroot, milkvetch, Indian paintbrush, geranium, and one-flower helianthella. Shrubs in the potential natural plant community include mountain big sagebrush, antelope bitterbrush, mountain snowberry, green rabbitbrush, and chokecherry.

Current vegetation present on the South Slope Stony includes bluebunch wheatgrass, peavine, long-leaf phlox, lupine, tapertip hawksbeard, pale agoseris, stickseed, yarrow, tapertip onion, blue-eyed Mary, and mountain big sagebrush. Also present is oniongrass, basin wildrye, Columbia needlegrass, bottlebrush squirreltail, big bluegrass, knotweed, blazing star, slenderleaf collomia, antelope bitterbrush, green rabbitbrush, and rubber rabbitbrush.

The NRCS site description for the North Slope Loamy 18-24" Mountain Big Sagebrush/Mountain Snowberry/Idaho Fescue states that visually the dominant vegetation of the site is mountain big sagebrush, mountain snowberry, and Idaho fescue. The potential natural plant community for grasses on this site includes Idaho fescue, and bluebunch wheatgrass, with lesser amounts of slender wheatgrass, prairie junegrass, Nevada bluegrass, and big bluegrass. Forbs in the potential natural plant community include arrowleaf balsamroot, lupine, alumroot, with lesser amounts of tapertip hawksbeard, cinquefoil, geranium, giant hyssop, Indian paintbrush, biscuitroot, hawkweed, and penstemon. Shrubs in the potential natural plant community include mountain big sagebrush, and mountain snowberry, with lesser amounts of antelope bitterbrush, rabbitbrush, and snowbush ceanothus.

Current vegetation present on the North Slope Loamy includes bluebunch wheatgrass, pale agoseris, lupine, Wyeth buckwheat, knotweed, blue-eyed Mary, and mountain big sagebrush. Also present is oniongrass, Sandberg bluegrass, Idaho fescue, bottlebrush squirreltail, basin wildrye, prairie junegrass, penstemon, arrowleaf balsamroot, vetch, Indian paintbrush, long-leaf phlox, groundsel, narrowleaf biscuitroot, wild onion, salsify, bedstraw, slenderleaf collomia, Richardson tansymustard, rockcress, cryptantha, green rabbitbrush, rubber rabbitbrush, chokecherry, and antelope bitterbrush. Cheatgrass, an invasive species, is also present in this plant community.

The NRCS site description for the Fractured South Slope 12-16" Mountain Big Sagebrush/Bluebunch Wheatgrass states that visually the dominant vegetation of the site is bluebunch wheatgrass and mountain big sagebrush. The potential natural plant community for grasses on this site includes bluebunch wheatgrass, with lesser amounts of Sandberg bluegrass, Nevada bluegrass, bottlebrush squirreltail, and basin wildrye. Forbs in the potential natural plant community include phlox and balsamroot, with lesser amounts of lupine, penstemon, fleabane, and milkvetch. Shrubs in the potential natural plant community include mountain big sagebrush, antelope bitterbrush, green rabbitbrush, rubber rabbitbrush, and Wyeth buckwheat.

Current vegetation present on the Fractured South Slope includes bluebunch wheatgrass, vetch, antelope bitterbrush, and mountain big sagebrush. Also present is Sandberg bluegrass, bottlebrush squirreltail, oniongrass, Columbia needlegrass, slender buckwheat, lupine, stickseed, stoneseed, violet, arrowleaf balsamroot, knotweed, rockcress, groundsmoke, aster, and long-leaf phlox. Cheatgrass is also present in the plant community.

Other ecological sites present within the allotment to a lesser degree are the South Slope Loamy 16-20" and the Douglas Fir/Mountain Snowberry 22" plus; vegetation cover information was not collected at these ecological sites during the 2005 field assessment.

The NRCS site description for the South Slope Loamy 16-20" Mountain Big Sagebrush/Idaho Fescue states that visually the dominant vegetation of the site is mixed grass and mountain big sagebrush. The potential natural plant community for grasses on this site includes Idaho fescue, bluebunch wheatgrass, with lesser amounts of slender wheatgrass, California brome, prairie junegrass, Columbia needlegrass, and Sandberg bluegrass. Forbs in the potential natural plant community include arrowleaf balsamroot and lupine, with lesser amounts of agoseris, tapertip hawksbeard, fleabane, phlox, Wyeth eriogonum, and giant hyssop. Shrubs in the potential natural plant community include mountain big sagebrush, with lesser amounts of antelope bitterbrush, green rabbitbrush, common chokecherry, and mountain snowberry.

The NRCS site description for the Douglas Fir/Mountain Snowberry 22" plus states that visually the dominant vegetation of the site is a Douglas fir forest community with a shrub/grass understory. The potential natural plant community for grasses on this site includes elk sedge, mountain brome, and bluebunch wheatgrass, with lesser amounts of pine reedgrass, Idaho fescue, oniongrass, Canby bluegrass, Sandberg bluegrass, blue wildrye, and alpine timothy. Forbs in the potential natural plant community include sticky geranium, western yarrow, and heartleaf arnica, with lesser amounts of arrowleaf balsamroot, tapertip hawksbeard, biscuitroot, silvery lupine, phacelia, groundsel, false solomonseal, rosy pussytoes, and timber loco milkvetch. Shrubs in the potential natural plant community include mountain snowberry and mountain big sagebrush, with lesser amounts of Saskatoon serviceberry, curl leaf mountain mahogany, white spirea, snowbrush ceanothus, myrtle pachistima, Woods rose, and quaking aspen.

3.3.3 Resource 3: Riparian Areas/Wetlands/Floodplains. Deer Creek Allotment contains several springs and perennial and intermittent streams; most of the riparian areas within the allotment boundary are located on private land. All riparian areas assessed during the rangeland health field evaluation were rated Functional At-Risk with no apparent trend. Imperial Gulch which runs through the allotment is an ephemeral drainage, and therefore, was not assessed.

<u>Democrat Gulch and Associated Tributary</u>. The head and a small portion of the mid-section of Democrat Gulch are located on BLM land; the remainder of the Democrat Gulch drainage crosses private land. Nearly all of Democrat Gulch is influenced by an existing county road; most of the road is actively eroding. Some portions of the road are severely gullied, up to eight feet deep and wide. Both segments of Democrat Gulch are well-wooded and the streambanks are intact. However, the road that traverses most of the length of Democrat Gulch is the primary contributor to the instream sedimentation of the channel.

There is approximately 440 feet of a perennial stream which drops into Democrat Gulch at the point where the gradient notably decreases. This tributary also is influenced by a two-track road, and historic mining activities that took place on private land along the tributary. Waste piles from the mine as well as the road have contributed to instream sedimentation to this tributary and further downstream into Democrat Gulch. This unnamed tributary is also heavily wooded and is in good riparian health except for the ongoing instream sedimentation.

<u>Lambs Gulch</u>. Lambs Gulch encompasses approximately 2,030 feet of stream channel and a spring on public land. A two-track road also parallels Lambs Gulch along most of its length and crosses it in a few places. Lambs Gulch is incised but is not actively downcutting. Spike rush and Kentucky bluegrass are the dominant herbaceous species and are limited to the water's edge. Lambs Gulch floodplain has narrowed in the past as evidenced by upland species growing along the streambank including mountain big sagebrush, snowberry, wild rose and rabbitbrush and the

narrow band of riparian herbaceous species along the stream channel's edge. The spring in Lambs Gulch is dominated by Nebraska sedge. The two-track road essentially ends at the spring and a bike trail skirts around the spring.

Further upstream, near the head of Lambs Gulch, approximately 300 feet of the stream is also located on public land. Woody species in this reach of Lambs Gulch are abundant and aspens are present but are largely decadent. Herbaceous hydric species are lacking. The riparian zone within the floodplain appears to have narrowed as evidenced by the presence of cheatgrass, rabbitbrush, mountain big sagebrush, burdock, Canada thistle, and bull thistle within the zone. Basin wildrye, groundsel, and Kentucky bluegrass are also found along the streambank.

3.3.4 Resource 4: Threatened, Endangered or Candidate Animal Species. The U.S. Fish and Wildlife Service's Biannual Resource Area Species List 2007-SL-0310 lists federally listed Threatened or Endangered Species known or suspected to occur in the resource area. Gray wolf (*Canis lupus*) is a listed animal species which may potentially occur in the allotment. Gray wolf is under review for de-listing by the U.S. Fish and Wildlife Service but remains listed at this time.

The recent and continuing expansion of gray wolves in the Big Wood River watershed above Magic Reservoir and adjacent areas has increased the likelihood that gray wolves may make use of lands in the Deer Creek Allotment on an incidental but year-round basis.

3.3.5 Resource 5: Wildlife, including Special Status Species. The BLM lists some additional animals and plants as BLM Sensitive Species in Idaho. The BLM Sensitive Species associated with Deer Creek Allotment are discussed below.

The BLM lists some additional animals as BLM Sensitive Species in Idaho. BLM Sensitive animals that may occur on the allotment during all or a portion of the year are: bald eagle; prairie falcon; sage grouse; fringed myotis; Townsend's big-eared bat; pygmy rabbit; wolverine; common garter snake; western toad; and three passerine bird species: loggerhead shrike; Brewer's sparrow; and sage sparrow. Expected use of habitat conditions on the allotment by the Sensitive animal species varies from incidental foraging activities to year-long use.

The presence of bald eagle in the general project area would most likely occur during the winter. Bald eagles may make incidental use of the allotment areas while wintering in the Big Wood River watershed.

Sage grouse are found primarily in habitats dominated by sagebrush (*Artemisia* spp.), particularly big sagebrush (*Artemisia tridentata* spp.). Records at the Shoshone Field Office show that there are no active sage grouse leks within two air miles of public land in the Deer Creek Allotment. One historic lek on public land in the allotment was last recorded occupied in 1977. The current Idaho sage-grouse habitat map indicates that the allotment contains 2,745 acres of key habitat on public land in the allotment. The shrub/steppe habitat which occurs in the allotment likely provides sage grouse nesting and brood-rearing habitat. Although sage grouse broods have been observed in the allotment, the steep slopes in Deer Creek may limit the suitability of the allotment for breeding. The sagebrush habitat for sage grouse during the late brood-rearing period. A portion of the allotment may provide suitable winter sage grouse habitat during winters with below normal snow accumulations. The present structure and diversity of the various habitats on the allotment provides suitable habitat conditions for many of the Sensitive sagebrush obligate animal species that may inhabit the Deer Creek Allotment.

Prairie falcons, Townsend's big-eared bats, and the fringed myotis may make light incidental use of the general area during the spring, summer, and fall seasons for dispersed foraging activities. Pygmy rabbits may be found in habitats that still contain a sagebrush overstory. Wolverines are wide ranging animals with a large home range. An individual wolverine may make a rare incursion through the allotment while hunting prey.

The three Sensitive passerine bird species and the calliope hummingbird are expected to use suitable habitat on the allotment during the spring, summer and fall season. These birds would use habitat on the allotment for nesting, security, escape and foraging cover. The common garter snake and the western toad have a relatively small home range and are expected to be yearlong residents on the allotment.

Wildlife species which are commonly associated with a native shrub/steppe habitat in foothill and mountainous terrain in the resource area are present in this allotment. Big game wildlife species which occur in the allotment include mule deer, pronghorn and elk. Mule deer use occurs year-round but primarily in the spring, summer and fall months. Public lands in the allotment are part of a mule deer migration corridor. Pronghorn use occurs in the spring, summer, and fall months. Light elk use occurs year-round within Deer Creek Allotment. Seasonal forage allocation levels for native ungulates which utilize public land were established by the Sun Valley MFP. Public land in Deer Creek Allotment was allotted to supply 336 deer months of summer forage. The allotment is also to supply 295 deer months of forage during the winter months. No formal forage allocation for pronghorn or elk use on public lands in Deer Creek Allotment was made during the Sun Valley planning effort. A brief listing of other common wildlife species which are known or likely to be found during a portion of the year include coyote, badger, cottontail, black-tailed jackrabbit, blue grouse, and red-tailed hawk in addition to numerous kinds of small mammals and song birds. A more complete listing of possible animal species likely to occur in habitats found in the allotment is referenced in the Sun Valley Grazing EIS (1981).

3.3.6 Resource 6: Recreation Use, Existing and Potential. BLM land within the allotment is identified as an Extensive Recreation Management Area (ERMA), meaning that recreation management actions are restricted to only those of a custodial nature allowing for recreational activities to take place while reacting to visitor health and safety conflicts, use and user conflicts and resource protection. Activities that occur within the allotment include: motorcycle and OHV riding, mountain biking, dog walking, horseback riding, hiking, trail running and big game hunting. The ERMA was identified in the 1981 Sun Valley MFP. Currently, there is little use or user conflicts within the allotment, this is in part because livestock grazing has not occurred on the allotment since 2000.

The majority of recreation use occurs in the spring (April through June) and fall (September through November). During the summer months, most of the recreation use shifts to the nearby Sawtooth National Forest. The majority of recreationists that recreate on Deer Creek Allotment are from the Wood River Valley.

There is a user-constructed trail that connects Lambs Gulch to Democrat Gulch. The trail was constructed in the early 1990's, then extended and rerouted during the fall of 2005. The reroute is a single-track trail that allows users to avoid three springs and four stream/spring crossings. This loop is becoming one of the most popular non-motorized trail opportunities close to Hailey. In the spring, summer and fall it receives approximately 3,000 visitors. The original two-track road that goes through the springs still exists but is rarely used by mountain bikers.

The BLM will be constructing a trail network in Deer Creek Allotment and three other adjacent allotments. The project, known as the Rotarun Trail Network, became a final decision in 2007. As identified in Rotarun Trail Network final decision, some of the existing trails in Deer Creek Allotment are designated for motorized and non-motorized use. Eventually, approximately 15 miles of single-track trail will be constructed and will also incorporate approximately four miles of existing roads and trails resulting in 18.8 miles of designated motorized and non-motorized trails. The project also includes the rehabilitation of approximately seven miles of existing roads and trails.

3.3.7 Resource 7: Socio-economics. Current costs to the livestock operator for grazing livestock within the allotment include but are not limited to paying \$1.35 per AUM. Additional costs would include salt blocks, mineral supplements, veterinary charges, vehicle gas and maintenance, etc. Other than allotment boundary fences and the sole livestock watering facility, there are no other structural range improvements that exist in the allotment which would require out-of-pocket costs to the operator.

3.3.8 Resource 8: Rangeland Health Standards and Guidelines, including Livestock

Grazing. Field data for Deer Creek Allotment was gathered in June 2005 and documented in a subsequent field assessment in December 2005. The field assessment documents that the allotment is meeting the rangeland health standard for all applicable standards except for Standard 2 (Riparian Areas and Wetlands) and Standard 3 (Stream Channel/Floodplain). These resource components of the allotment are not meeting standard for several reasons: 1) the county road in the allotment which is currently gullied; also the road has influenced the hydrogeomorphic aspects of Democrat and Lambs Gulch; 2) historic mining activities and their associated tailing piles; 3) dispersed recreation activities; and 4) past livestock grazing management practices.

The county road parallels Democrat Gulch and is actively eroding and has dumped a considerable amount of sediment into the system. Also, the roads which parallel Democrat and Lambs Gulch have to some degree influenced the hydrogeomorphic aspects of both drainages, i.e., natural hydrologic functions such as lateral movement of the streams, sinuosity, and/or width/depth ratios are likely affected by the presence of the road in their floodplains.

Historic mining activities and tailing piles are located on private land near the head of a tributary to Democrat Gulch. The contents of some of the tailing piles are adjacent to the tributary and through gravity and exposure to the elements of weather the piles are eroding into the drainage.

Dispersed recreation activities along Democrat and Lambs Gulch, in particular mountain and dirt biking, have to some degree affected riparian systems in the allotment. In association with these recreation activities, trails have been pioneered which parallel and cross drainages and wet meadows. As a result, these pioneered trails have contributed to the degradation of the riparian systems through loss of vegetation, soil compaction, and/or accelerated sediment movement into the systems.

Past livestock grazing management practices have left their influence on riparian systems within the allotment. Past livestock grazing took place during the heat of the summer and under current management, without any kind of rotation system that would allow for regrowth or rest. Livestock use tended to concentrate along the drainages where forage, water, and shade are most abundant. The imprint of past livestock use is still evident. Although as time passes and livestock

non-use continues, past grazing management practices become less of a factor in these resource components not meeting rangeland health standards.

4.0 ENVIRONMENTAL IMPACTS

4.1 Introduction:

The National Environmental Policy Act of 1969 mandated that all environmental analyses fully disclose the environmental consequences of a proposed action and the alternative(s) to that action. A variety of environmental consequences will result from implementation of the proposed action or any of the alternatives. This chapter contains a discussion of the direct, indirect, and cumulative impacts for the proposed action and alternative.

Direct effects are those that occur immediately in the area where the action is implemented, while indirect effects are those that occur later in time or are spatially removed from the area where the action is implemented. Cumulative impacts or effects are defined as impacts on the environment which result from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions (40 CFR 1508.7).

Also included in the discussion are the adverse environmental effects which cannot be avoided, the relationship between short-term uses and long-term productivity, and any irreversible or irretrievable commitments of resources involved with the proposed action and alternative.

4.2 Direct/Indirect Impacts:

This section addresses the direct and indirect impacts of the action on the human environment. Direct impacts are effects which are caused by the action and occur at the same time and place. Indirect impacts are effects which are caused by the action but are farther removed in distance or later in time but are still reasonably foreseeable.

4.2.1 Alternative A – Proposed Action:

4.2.1.1 Resource 1: Soils. Under this alternative, grazing would commence a month later than under the current permit, i.e., Alternative B - No Action. Earlier in the spring, soils tend to be wet, and wetter soils are more capable of becoming compacted than are dry soils. The effects of compaction reduces water infiltration and storage into the soils, limits plant growth by physically restricting root growth, and alters soil moisture and temperature which control microbial activity in the soil and the release of nutrients to plants.

With the month later on-date under the proposed action, it is likely that soils would be drier and therefore, less susceptible to the effects of soil compaction. Additionally, the allotment would be entirely rested one year in three. Allowing rest into the management system would reduce the amount of time the soil resource is exposed to the mechanical impacts of livestock use, and thereby allow for increased nutrient cycling in the soil and subsequent release of nutrients to plants. This effect would benefit perennial plant production in the allotment by reducing livestock grazing 21 percent out of a three-year cycle, i.e., livestock would graze the allotment nine months out of 36 months under this alternative versus 16.5 months out of 36 months under the No Action alternative.

4.2.1.2 Resource 2: Vegetation, including Invasive, Non-native Species;

Woodland/Forestry; and Special Status Plant Species. From a phenological standpoint, this alternative would benefit the native plant communities in the allotment. Available phenological information which is closest in proximity to Deer Creek Allotment was collected in 1976 at Croy Creek (southwest aspect at 6,000 feet). This information indicated that bluebunch wheatgrass and Idaho fescue were in the boot stage on approximately June 1 and May 26,

respectively. Both grass plants started flowering around July 5. Prolonging the beginning grazing period by a month would better ensure the productive condition of native grasses and forbs in the allotment because plants would be given more time to develop reproductively and to produce foliage to help replenish carbohydrate reserves.

Under this alternative, a utilization standard of 40 percent of annual production would be implemented. A full year's rest would help perennial plants recover losses of vigor. Incorporation of rest and a utilization standard in the management system would overall reduce grazing pressure in the allotment and specifically benefit native plant species reproduction and vigor. A 40 percent utilization level would, at a minimum, allow for the maintenance of palatable plant forage species in the allotment (Holechek 1999).

As long as noxious weeds (i.e., as identified and listed by the Idaho State Department of Agriculture) and non-native, invasive species are present in the allotment, livestock use would continue to be a source of their spread. However, under this alternative, it is expected that desirable perennial vegetation cover and production would be maximized compared to the Alternative B - No Action. It is expected that an increase in plant cover and biomass would result in a decrease in the amount of bare soil. Consequently, less bare soil and potential seed beds would lead to fewer opportunities for the proliferation of noxious weeds and invasive, non-native species such as cheatgrass.

Aspen stands would continue to be sought out by livestock for shade, but the upland utilization standard and in particular, the riparian stubble height standard and one year's rest in three, would decrease the amount of time mechanical impacts are occurring within the stands.

Although bug-leg goldenweed is intolerant of deep ground disturbance, such as digging and excavation, it is tolerant of impacts associated with most livestock grazing use. It is expected that the proposed action would have a negligible effect on the three known subpopulations or its potential habitat in the allotment.

4.2.1.3 Resource 3: Riparian Areas/Wetlands/Floodplains. Instream sedimentation from the county road and mining road along Democrat Gulch is expected to continue, regardless of the alternative selected. Impacts from Alternatives A and B would be the same.

Livestock use within riparian zones and associated floodplains on BLM land would be managed so that the median four-inch stubble height on riparian hydric species is not exceeded. Managing livestock use in the riparian areas would help control, in general, livestock congregation, and thereby limit streambank trampling, while maintaining vigor and production of riparian species and promote overall riparian health (Clary and Webster 1989). Regulating livestock to leave at least the minimum riparian vegetation stubble would help maintain desirable perennial plant community composition and potentially decrease opportunities for the germination of invasive, non-native species and noxious weeds.

4.2.1.4 Resource 4: Threatened, Endangered or Candidate Animal Species. The proposed livestock grazing treatments are not expected to perceptively alter habitat suitability for the federally listed gray wolf which may occur on Deer Creek Allotment. The suspected very low, incidental use level of the project area by this listed animal species is expected to result in "No Effect" to the continued existence of the portion of the population gray wolf that may make use of the habitat on Deer Creek Allotment.

4.2.1.5 Resource 5: Wildlife, including Special Status Species. Positive impacts to the wildlife resource on upland sites from this alternative would be in the form of a reduced level of direct competition for forage, less social displacement of some wildlife species, and an overall increase in forage, and nesting and escape cover for many small game and non-game wildlife. Cattle grazing during the early use period would result in competition between cattle, elk and mule deer for early season forage in the allotment two years out of three. Rest from cattle grazing would provide an improvement in foraging, nesting and escape cover values for many large mammals, small game and non-game wildlife that utilize the allotment. The expected increase in herbaceous cover values on the allotment would improve nesting, foraging and security habitat values for many shrub/steppe wildlife species. The combination of a later starting date coupled with complete allotment rest one year in three would result in positive benefits to the wildlife species which utilize the allotment.

Providing rest from cattle grazing for one year out of three would reduce direct competition for forage between cattle, elk and to a lesser extent mule deer. Rest from cattle grazing would provide an improvement in foraging, nesting and escape cover values for many small game and non-game wildlife that utilize the allotment.

The proposed grazing treatment sequence and associated utilization standards would lead to the re-establishment and possible expansion of the riparian plant community with all its associated wildlife habitat values. The expected increase in native herbaceous vegetation cover in the riparian areas would improve nesting, foraging, security, and escape habitat values for many species of wildlife. By beginning the grazing season a month later, the length of the early grazing season is reduced on the semi-wet meadows associated with the perennial spring which would improve their wildlife forage production value. Delaying the start of the grazing season would result in an increase in both wildlife nesting and foraging values.

A year of rest from cattle grazing in conjunction with a later livestock use commencement date would improve the habitat conditions for sage grouse nesting and early brood rearing. Because of the expected increased levels of herbaceous cover under the proposed action, improvements in foraging, nesting and brood-rearing habitat values for loggerhead shrike, sage sparrow and Brewer's sparrow would occur from the planned actions. The expected changes in herbaceous cover would likely increase the density and diversity of the small mammal population on the allotment, improving the prey base for prairie falcons that utilize the allotment.

The anticipated decrease in livestock disturbance and the increase in vegetation and structural diversity of the riparian habitat associated with drainages and perennial spring areas would improve nesting and foraging habitat values for the BLM Sensitive species which utilize riparian habitats. The expected improvement in plant community composition and its attendant cover values on upland sites would improve habitat values for the Sensitive passerine birds and the BLM Sensitive bats which occur in the allotment. The expected increase in the establishment and vigor of the herbaceous riparian plant community would improve sage grouse late summer foraging values.

4.2.1.6 Resource 6: Recreation Use, Existing and Potential. Since the allotment has been in non-use by livestock since 2000 there has been no conflict between livestock, livestock operators and recreationists. The majority of recreation use occurs in the spring (April through June) and fall (September through November). Therefore, there could be two weeks in the spring and eight weeks in the fall of high recreation use during the time livestock are utilizing the allotment. However, conflicts could continue throughout the summer based on the increasing

demand for recreation opportunities close to the city of Hailey. Conflicts would most likely consist of livestock being inadvertently pushed into drainages and riparian areas by recreationists and their activities. This is because the roads and trails within the allotment follow drainage bottoms where livestock tend to congregate. Conflicts could also result in recreationists not closing gates, thus allowing livestock to leave the allotment. This is of concern especially in the short term since recreationists are not accustom to experiencing livestock within this area.

If trails within the allotment were realigned to contour hillsides and drainages rather than follow drainage bottoms, this would greatly reduce recreationists inadvertently pushing livestock up or down drainages or into riparian areas. However, since cattle have a tendency to contour hillsides they may utilize trails to negotiate steep slopes that exist within the allotment. This could be damaging to the trail tread, especially when wet, resulting in reduced levels of user satisfaction and increased levels of recreation/livestock conflict.

4.2.1.7 Resource 7: Socio-economics. The permittee would need to find alternative means of grazing his herd during the scheduled rest year. This would require him to utilize his private land or to find pasture for rent. The incorporation of rest into the management system would probably result in an increase in costs to the operator, at least during scheduled rest years.

4.2.1.8 Resource 8: Rangeland Health Standards and Guidelines, including

Livestock Grazing. Even though livestock use would continue to occur during the hot season, grazing management actions (riparian stubble height and streambank alteration maximum limits) would be implemented to prevent over-use of the riparian ecosystems by livestock. Also, the proposed action would provide rest to the riparian resource one year in three; during the span of the term permit three times more rest would be provided than under current management which provides none. The combination of grazing management actions and the provision for rest, would help the allotment progress further toward achieving the principles of rangeland health for Standards 2 and 3.

4.2. 2 Alternative B – No Action:

4.2.2.1 Resource 1: Soils. Although livestock use would not commence until the allotment is "range ready", i.e., soils are firm, there would be more potential for some soil compaction to occur because the moisture content of the soil would likely be higher in May than in June because of probability of early season weather disturbances. Soils with higher moisture content that are subject to physical disturbances associated with livestock use are more susceptible to soil structure degradation. Well aggregated soils are less vulnerable to the effects of water erosion and the rate of water infiltration tends to be higher. The soil resource would more often be exposed to mechanical impacts under this alternative because rest would not be incorporated into the allotment management system. With a higher exposure to mechanical impacts, it can be expected that there would be more bare soil and soil surface disturbance and less plant composition, distribution, and productivity under this alternative.

4.2.2.2 Resource 2: Vegetation, including Invasive, Non-native Species;

Woodland/Forestry; and Special Status Plant Species. Early spring use, particularly on an annual basis, would be detrimental to the existing native perennial plant community. Also, during early spring use when soils are often wet, there is a higher occurrence of Idaho fescue plants being dislodged (Johnson 1994). Bluebunch wheatgrass is most vulnerable to grazing-related impacts just before and during the boot stage⁴ of plant development. The health and longevity of the plant community, especially Idaho fescue and bluebunch wheatgrass would be

⁴ Boot stage refers to part of the reproductive (flowering) phase of the grass plant. Boot stage occurs when the seedhead is enclosed in the grass-leaf sheath, just prior to the phase in which the seedhead emerges.

compromised.

There is greater potential for moderate to heavy grazing pressure (>50%) to occur because of the lack of management controls such as a utilization standard under this alternative. More grazing use could result in a reduction of native perennial plant maintenance over a period of time. Livestock use (loafing, shading, browsing) in aspen stands would likely increase, thereby suppressing stand regeneration. Perennial vegetation cover, biomass, and litter would decrease which would increase bare soil and opportunities for the germination of noxious weeds and non-native, invasive species.

Effects on bug-leg goldenweed would be similar to those described under Alternative A.

4.2.2.3 Resource 3: Riparian Areas/Wetlands/Floodplains. The riparian resource would continue to not meet Rangeland Health Standards for Idaho under this alternative. Without the incorporation of minimum riparian management actions, livestock use could potentially exceed desired limits during the course of the grazing season. The degree of streambank and spring source trampling and degradation would be greater than Alternative A and the riparian zone would narrow. Eventually, the water table within the riparian areas would be lower because the streambanks' capacity to hold and release water would be reduced.

4.2.2.4 Resource 4: Threatened, Endangered or Candidate Animal Species. The potential impacts to sensitive species which utilize the shrub/steppe and riparian habitat in the allotment would be similar, yet less environmentally preferred, to those described for Alternative A. The beneficial impacts to sensitive species would occur less rapidly and in a longer period of time under the grazing prescription proposed in this alternative than the prescription described in Alternative A.

The anticipated slight decrease in herbaceous cover values under this alternative would provide less quality of the sage-grouse nesting and brood-rearing habitat in Deer Creek Allotment than Alternative A. The expected slight decrease in plant community composition and its attendant cover values on upland sites would cause a slight decline habitat values for the Sensitive passerine birds and the BLM Sensitive bats which occur in the allotment.

4.2.2.5 Resource 5: Wildlife, including Special Status Species. Impacts to wildlife from this action would be a result of seasonal or long term changes in plant community structure, seasonal dietary overlap and, in some instances, social displacement. Cattle and elk have similar seasonal dietary preferences. Livestock grazing during the spring and early summer months and during the fall season would result in the greatest overall dietary overlap with elk. Elk are more likely to utilize forage on slopes greater than 60 percent than are cattle. The ability of elk to use steeper slopes coupled with their social avoidance of domestic livestock would result in elk abandoning the more gently sloped portions of the allotments while livestock are utilizing these areas. Cattle grazing during the early use period would result in competition between cattle, elk and mule deer for early season forage every year. The dietary overlap between cattle and mule deer is limited resulting in a reduced impact to the local mule deer population from competition with cattle for forage.

Grazing can have significant affects on riparian ecosystems and associated wildlife. Because birds are known to be responsive to alterations in structure and vegetation composition of riparian habitats (Szaro and Jakle 1985) they are affected by livestock-induced changes in these habitats (Sedgewick and Knopf 1987, Knopf et al. 1988). A reduction in plant community structure and a decrease in occurrence of riparian plant species would result from the practice of permitting livestock to use riparian areas without prescribed riparian grazing use standards and associated use levels. Decreases in the density and diversity of native riparian plants would result in a reduction in wildlife habitat values for those species which utilize riparian areas.

4.2.2.6 Resource 6: Recreation Use, Existing and Potential. Since livestock would start utilizing the Allotment May 15th this would increase the amount of time they are in the area. Therefore, there could be six weeks in the spring and eight weeks in the fall of high recreation use during the time livestock are utilizing the allotment. All other impacts are similar to the Proposed Action.

4.2.2.7 Resource 7: Socio-economics. This alternative would cause the least expense to the permittee because the allotment could be grazed annually. However, annual use of the allotment could decrease forage productivity particularly in low precipitation years. Decreased productivity could cause the livestock operator to have to remove livestock earlier than planned.

4.2.2.8 Resource 8: Rangeland Health Standards and Guidelines, including

Livestock Grazing. Under this alternative, it is less likely that attainment of or progress toward achieving rangeland health for Standards 2 and 3 would be made. Livestock use within the riparian ecosystems of the allotment would occur for a longer seasonal period and more often (on an annual basis) under this alternative than that which could happen under the proposed action. There would not be any implementation of management action limits (e.g., stubble use heights or streambank alteration) to facilitate the allotment in achieving Standards 2 and 3 while AUMs are harvested. Similar to Alternative A, other factors (e.g., active erosion of county road and tailing piles), outside of the realm of livestock grazing use, would continue to affect the functionality of the riparian ecosystems.

4.3 Cumulative Impacts Analysis:

This section addresses the cumulative impacts of the action which result from the incremental impact of an action when added to other past, present, or reasonably foreseeable actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions that take place over a period of time.

4.3.1 Past and Present Actions:

In regard to livestock use, domestic grazing has occurred in the area presently known as Deer Creek Allotment since the late 1800s. This area was first managed by the General Land Office (GLO) and designated as arid, broken, mountainous, or grazing in character (USDI – BLM 1988). Many western ranchers depended on this remaining public domain to help support their livestock. The local ranchers grazed these lands in conjunction with their private ranch lands and it was on a first-come, first-served basis. All of these lands had unregulated grazing until implementation of the Taylor Grazing Act of 1934. In 1946, the Department of the Interior formed the Bureau of Land Management and grazing on public lands was formalized and divided into grazing allotments. Since 2000, the current permit holder has not grazed livestock on the allotment.

Other past or ongoing actions that affect the same components of the environment as the proposed action include mining. Approximately nine abandoned mines are located within or adjacent to the boundary of Deer Creek Allotment (Mitchell 1990). Most of the mining activity occurred on non-BLM acres. Mining in the Deer Creek Allotment area commenced as early as 1884 and the last recorded activity occurred in 1964. Extractions were for gold, silver, copper,

lead, and zinc and production was less than 50 ounces for gold, and ranged from 1,000 to 5,000 ounces for silver; 1,000 to 5,000 pounds for copper; 500,000 to 2,000,000 pounds for lead; and 100,000 to 500,000 pounds for zinc at the various mines. Some of the abandoned mines have not been reclaimed; if so, any tailing piles located near or in drainages could wear away into the stream channel. Such is the case at the abandoned mine on private land along the unnamed tributary to Democrat Gulch.

The current population of Hailey is 7,500 and is experiencing a yearly growth rate of 3.5 to 6 percent. Hailey had a 70 percent growth rate during the 1980's and a 75 percent growth rate in the 1990's. The population estimates within Blaine County on July 1, 2004, was 21,103 which is a 10 percent increase between 2001 and 2004.

Because of its proximity to the Wood River valley, dispersed recreation activity use in the Deer Creek Allotment has been increasing steadily over the past two to three decades. This trend is expected to continue. The level of recreation use that has taken place has reached a point where damaging impacts to the soil, riparian, and vegetation resource is occurring. Increasing urbanization of the Wood River Valley is expected to increase dispersed recreation use on public lands, including the Deer Creek Allotment area. As the population of the Wood River Valley grows, more individuals will be seeking recreation opportunities on weekends and evenings. The development of the Rotarun Trail Network will make Deer Creek and adjacent allotments an attractive destination for a quick getaway because of its close proximity to the Hailey/Bellevue area.

The BLM Shoshone Field Office is working with the Blaine County Commissioners in developing a Cooperative Conservation Recreation and Travel Plan. This plan will consist of the following:

- Within the Wood River Valley identify Special Recreation Management Areas and designate roads and trails.
- The Blaine County Commissioners will make a formal proposal to the BLM Shoshone Field Office in late winter of 2008. This proposal will then be addressed by the BLM through the appropriate NEPA analysis.
- The planning effort overlaps BLM, State, County and private lands.

4.3.2 Reasonably Foreseeable Action Scenario (RFAS):

The following RFAS identifies reasonably foreseeable future actions that have the potential to cumulatively affect the same resources in the cumulative impact area as the proposed action and alternatives.

In the reasonably foreseeable future, actions include the Croy Creek Preserve Subdivision. This subdivision is located approximately one mile west of Deer Creek Allotment and is a proposal for 21 single family lots ranging from approximately five to eight acres. Subdivision plans include trailhead parking and a non-motorized trail easement along Croy Creek Road. The proposal for this subdivision was made in March 2007 and is in the initial stages of gathering public comment and review.

Also, there is a proposal for 56 subdivided lots over 471 acres for the Croy Creek Ranch near the intersection of the Croy Creek Road and the Rock Creek Road. This proposed subdivision adjoins the Croy Creek Preserve Subdivision to the south. This subdivision project has undergone several public hearings and has been approved by the Blaine County Commissioners.

The Rotarun Trail network is a BLM project for the construction and designation of motorized and non-motorized trails, as well as rehabilitation of some existing roads and trails. Construction of the trail network is expected to start during the summer of 2008. A portion of the trail network runs through the southern part of Deer Creek Allotment and three other adjacent allotments. Approximately seven miles of proposed trail construction lies within Deer Creek and 1.5 miles of existing trail are earmarked for rehabilitation. The analysis for this project has been completed and the decision document was signed on September 21, 2007.

Approximately 2.4 miles of the Democrat Gulch county road traverses the allotment and about .60 miles of the county road is currently severe eroded. Eventually, at a minimum, the eroded potion of the road will need repair in addition to the maintenance the county presently schedules on it. Repair and maintenance would require heavy equipment use, possibly some degree of erosion control measures, and disturbance of the surrounding soil and vegetation to bring the road bed into a usable, functioning condition.

The term grazing permit for Deer Creek Allotment would be issued for a 10-year period. Near the end of the 10-year term period, livestock management and resource objectives and concerns for Deer Creek Allotment will again be reviewed, assessed, and analyzed under the Rangeland Health Standards for Idaho and/or the existing regulations for consideration of permit renewal.

4.3.3 Cumulative Impacts:

Cumulative Impacts of the Proposed Action

Resource 1: Soils

Long-term benefits to the soil and watershed resource are expected with the provision of rest and incorporation of upland and riparian use standards.

Resource 2: Vegetation, including Invasive, Non-native Species; Woodland/Forestry; and Special Status Plant Species

The provisions mentioned under Resource 1 would similarly benefit desirable perennial species in the allotment over the long term. Invasive, non-native species would continue to be a management concern and chemical and biological methods to stem their spread would continue. Positive benefits to desirable plant species would help to decrease competition from invasive, non-native species. However, the expected increase in recreation use would increase the potential for the spread of invasive, non-native species, as well as noxious weeds.

Resource 3: Riparian Areas/Wetlands/Floodplains

Implementing the proposed action would over time increase riparian hydric species vigor and diversity, help to increase streambank saturation capabilities, reduce fine sediments in the stream channel, and help in increasing flows. In the long term, Rangeland Health Standards would be achieved and maintained.

Resource 4: Threatened, Endangered or Candidate Animal Species

Implementation of the proposed action would provide long-term positive benefits to the mountain big sagebrush habitat in the allotment.

Resource 5: Wildlife, including Special Status Species

Implementation of the proposed action would provide long-term positive benefits to the mountain big sagebrush habitat in the allotment.

Resource 6: Recreation Use, Existing and Potential

Potential conflict would not occur during the years the allotment receives livestock rest. Designating land within the Allotment as a SRMA and constructing sustainable contour trails would be done to provide recreation opportunities and beneficial outcomes that are in demand by residents of the Wood River Valley. Satisfaction levels would be monitored to ensure recreationists are attaining targeted experiences and benefits identified through the Cooperative Conservation Recreation and Travel Plan. Livestock encounters/conflicts may compromise the ability of recreationists to achieve those levels of satisfaction.

Resource 7: Socio-economics

Over the next ten-year permit period, out-of-pocket operation costs for the livestock operator would increase because of the three years the permittee cannot graze the allotment. The livestock operator would be required to use his own private haygrounds or rent other private pastureland for the herd.

Resource 8: Rangeland Health Standards and Guidelines, including Livestock Grazing

Other factors, outside of the control of livestock grazing use, such as the existence of roads within the drainages, active erosion of the county road and tailing piles, and dispersed recreation activities, would continue to affect the functionality of the riparian ecosystems. However, under the proposed action, even if attainment of rangeland health for Standards 2 and 3 is not made within the span of the next term permit period, it is unlikely that livestock grazing management practices would be found to be a contributing factor.

Cumulative Impacts of the No Action

Resource 1: Soils

The soil and watershed resource would continue to meet Rangeland Health Standards for Idaho, but in the long-term, soils would be more susceptible to the effects of compaction because of the earlier on-date and the greater chance of soils being wet.

Resource 2: Vegetation, including Invasive, Non-native Species; Woodland/Forestry; and Special Status Plant Species

Non-use has occurred in this allotment for eight seasons. If use were to resume under present management terms, the current status of the allotment, i.e., meeting Rangeland Health Standards for Idaho (for native plant communities) could change within the next 10-year time period. Annual, early use would be detrimental to native vegetation in the long-term. The potential for the spread of invasive, non-native species and noxious weeds, would be similar to the directs effects described for the No Action alternative; i.e., an increase in bare soil is likely, thereby increasing the opportunities for the germination of noxious weeds and non-native, invasive species.

Resource 3: Riparian Areas/Wetlands/Floodplains

If use were to resume as currently permitted, an overall decline in riparian health would ensue over the next 10-year permit period. Riparian areas that are currently in a functional-at risk

condition would remain in such a status and their current no apparent trend could decline into a downward trend if their functionality is compromised by the expected congregation of livestock use in riparian areas.

Resource 4: Threatened, Endangered or Candidate Animal Species

Less positive benefits to habitat for threatened, endangered, and sensitive species would accrue under annual, early use grazing.

Resource 5: Wildlife, including Special Status Species

Less positive benefits to habitat for wildlife species would accrue.

Resource 6: Recreation Use, Existing and Potential

As previously mentioned, livestock grazing non-use has occurred on the allotment since 2000 which is most if not all of the time that the current group of mountain bikers have been using the area. Therefore, in the recent past, biking enthusiasts have not been accustomed to livestock grazing the area. The better known and popular the Rotarun Trail network becomes, the more likely that there will be recreation/livestock conflicts, if livestock use resumes, particularly on an annual basis.

Resource 7: Socio-economics

Cumulative impacts to the livestock operator would be negligible.

Resource 8: Rangeland Health Standards and Guidelines, including Livestock Grazing

Livestock grazing use, active erosion of roads and tailing piles within the drainages, and dispersed recreation activities, would expect to decrease the functionality of the riparian ecosystems. Standards 2 and 3 would not likely attain the standard for rangeland health within the span of the next term permit period.

5.0 CONSULTATION AND COORDINATION:

5.1 Introduction:

The issue identification section of Chapter 1 identifies those issues analyzed in detail in Chapter 4. Appendix B provides the rationale for issues that were considered but not analyzed further. The issues were identified through the public and agency involvement process described in sections 5.2 and 5.3 below.

5.2 Persons, Groups, and Agencies Consulted:

Consultation or Coordination	
consultation of cool anation	Findings & Conclusions
Affected	Ranch manager was consulted with during
permittee/representative;	the development of the Proposed Action.
received the Rangeland Health	
Assessment for Deer Creek	
Allotment which is part of the	
public scoping process in	
leveloping this EA.	
interested public; received the	No comment received in regard to the
Rangeland Health Assessment	Assessment.
or Deer Creek Allotment	
which is part of the public	
bis $E\Delta$	
IIIS LA.	
Consultation as required by the	Received the Rangeland Health
American Indian Religious	Assessment for Deer Creek Allotment
Freedom Act of 1978 (42 USC	which is part of the public scoping process
(1531) and NHPA (16 USC	in developing this EA. No comment
1531).	received in regard to the Assessment.
interested public; received the	No comment received in regard to the
Cangeland Health Assessment	Assessment.
of Deer Creek Anothem	
which is part of the public	
his FA	
A see A A subling to which I a A Fill in R to which he had a subling to which I a A Fill in R to which he had a subling to	ffected ermittee/representative; ceived the Rangeland Health ssessment for Deer Creek llotment which is part of the ablic scoping process in eveloping this EA. tterested public; received the angeland Health Assessment or Deer Creek Allotment hich is part of the public coping process in developing is EA. onsultation as required by the merican Indian Religious reedom Act of 1978 (42 USC 531) and NHPA (16 USC 531). tterested public; received the angeland Health Assessment or Deer Creek Allotment hich is part of the public coping process in developing is EA.

TABLE 5.1: List of all Persons, Agencies and Organizations Consulted for Purposes of EA ID-230-2007-EA-3301

5.3 Summary of Public Participation:

During preparation of this EA, the public was notified of the proposed action by posting on the Idaho internet NEPA database on December 29, 2006. Also, by way of this pre-decisional EA dated January 17, 2008 the public will have opportunity to comment on the proposed action until February 22, 2008.

5.4 Preparers of this EA:

Individuals who participated in the preparation of this EA are listed in the following table.

Name/Field Office	Title	Responsible for the Following Section(s) of this Document
Clare Josaitis/	Rangeland Management	Technical Coordination and Project Record; affected
Shoshone	Specialist/ Team Lead	environment and effects analysis soils, riparian,
		vegetation, and socio-economics
Gary Wright/	Wildlife Biologist	Affected environment and effects analysis for wildlife
Shoshone		and TES Animals
Julie Hilty/	Botanist	Affected environment and effects analysis for TES
Shoshone		Plants
John Kurtz/	Outdoor Recreation	Affected environment and effects analysis for
Shoshone	Planner	recreation
Dean Brown/	Range Technician	General review of analysis
Shoshone		
Lisa Cresswell/	Archaeologist	Review of analysis as it relates to cultural & heritage
Shoshone		resources
John Garth/	Mining Engineer	Review of analysis as it relates to mining activities
Shoshone		
Kasey Prestwich/	Forester	Review of analysis as it relates to woodland & forestry
Shoshone		
Barbara Bassler/	NEPA Planner	Proofreader
Shoshone		

TABLE 5.4 List of Preparers:

6.0 REFERENCES

6.1 References Cited:

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APPENDICES

APPENDIX A

Idaho Guidelines per the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management

- 1. Use grazing management practices and/or facilities to maintain or promote significant progress toward adequate amounts of ground cover (determined on an ecological site basis) to support infiltration, maintain soil moisture storage, and stabilize soils.
- 2. Locate livestock management facilities away from riparian areas wherever they conflict with achieving or maintaining riparian –wetland functions.
- Use grazing management practices and /or facilities to maintain or promote soil conditions that support water infiltration, plant vigor, and permeability rates and minimize soil compaction appropriate to site potential.
- 4. Implement grazing management practices that provide periodic rest or deferment during critical growth stages to allow sufficient regrowth to achieve and maintain healthy, properly functioning conditions, including good plant vigor and adequate vegetative cover appropriate to site potential.
- 5. Maintain or promote grazing management practices that provide sufficient residual vegetation to improve, restore, or maintain healthy riparian-wetland functions and structure for energy dissipation, sediment capture, ground water recharge, streambank stability, and wildlife habitat appropriate to site potential.
- 6. The development of springs, seeps, or other projects affecting water and associated resources shall be designed to protect the ecological functions, wildlife habitat, and significant cultural and historical/archaeological/ paleontological values associated with the water source.
- 7. Apply grazing management practices to maintain, promote, or progress toward appropriate stream channel and streambank morphology and functions. Adverse impacts due to livestock grazing will be addressed.
- 8. Apply grazing management practices that maintain or promote the interaction of the hydrologic cycle, nutrient cycle, and energy glow that will support the appropriate types and amounts of soil organisms, plants, and animals appropriate to soil type, climate, and landform.
- 9. Apply grazing management practices to maintain adequate plant vigor for seed production, seed dispersal, and seedling survival of desired species relative to soil type, climate, and landform.
- 10. Implement grazing management practices and /or facilities that provide for complying with the Idaho Water Quality Standards.
- 11. Use grazing management practices developed in recovery plans, conservation agreements, and Endangered Species Act, Section 7 consultations to maintain or improve habitat for federally listed threatened, endangered, and sensitive plants and animals.
- 12. Apply grazing management practices and/or facilities that maintain or promote the physical and biological conditions necessary to sustain native plant populations and wildlife habitats in native plant communities.

- 13. On areas seeded predominantly with non-native plants, use grazing management practices to maintain or promote the physical and biological conditions to achieve healthy rangelands.
- 14. Where native communities exist, the conversion to exotic communities after disturbance will be minimized. Native species are emphasized for rehabilitating disturbed rangelands. Evaluate whether native plants are adapted, available, and able to compete with weeds or seeded exotics.
- 15. Use non-native plant species for rehabilitation only in those situations where:
 - a. native species are not readily available in sufficient quantities;
 - b. native plant species cannot maintain or achieve the standards; or
 - c. non-native plant species provide for management and protection
 - of native rangelands.

Include a diversity of appropriate grasses, forbs, and shrubs in rehabilitation efforts.

- 16. On burned areas, allow natural regeneration when it is determined that populations of native perennial shrubs, grasses, and forbs are sufficient to revegetate the site. Rest burned or rehabilitated areas to allow recovery or establishment of perennial plant species.
- 17. Carefully consider the effects of new management facilities (e.g., water developments, fences) on healthy and properly functioning rangeland prior to implementation.
- 18. Use grazing management practices, where feasible, for wildlife control and to reduce the spread of targeted undesirable plants (e.g., cheatgrass, medusa head, wild rye, and noxious weeds) while enhancing vigor and abundance of desirable native or seeded species.
- 19. Employ grazing management practices that promote natural forest regeneration and protect reforestation projects until the Idaho Forest Practices Act requirements for timber stand replacement are met.
- 20. Design management fences to minimize adverse impacts, such as habitat fragmentation, to maintain habitat integrity and connectivity for native plants and animals.

APPENDIX B

INTERDISCIPLINARY TEAM ANALYSIS RECORD CHECKLIST

Project Title: Permit Renewal for Deer Creek Allotment #80210 (located in Blaine County)

NEPA Log Number: ID-230-2007-EA-3301

File/Serial Number:

Project Leader: Clare Josaitis

DETERMINATION OF STAFF: (Choose one of the following abbreviated options for the left column)

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for significant impact analyzed in detail in the EA; or identified in a DNA as requiring further analysis

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section C of the DNA form.

Det ermi- nation	Resource	Rationale for Determination	Signature	Date				
	CRITICAL ELEMENTS							
NI	Air Quality (Team Leader)	There is no official air quality designation for the area. In any case, air quality is not going to be affected by renewing the permit.	cj	1-11-07				
NP	Areas of Critical Environmental Concern (Project Lead)	There are no ACECs within project area.	cj	1-11-07				
NI	Cultural Resources (Lisa Cresswell)	One historic cabin and one ditch have been identified within the allotment, but are not affected by the renewal of a grazing permit.	LC	1/12/07				
NP	Environmental Justice (Project Lead)	No affect.	cj	1-11-2007				
NP	Farmlands (Prime or Unique) (Project Lead)	There are no prime or unique farmlands.	cj	1-11-2007				
PI	Floodplains (Project Lead)	Streambanks, floodplains did not meet RH standard. Historic livestock grazing issues related to this plus current recreation use effects are occurring.	cj	1-11-2007				
PI	Invasive, Non-native Plant Species (Julie Hilty)	There are documented occurrences of diffuse knapweed in Democrat Gulch and Lambs Gulch. Canada thistle and bull thistle were documented in an unnamed tributary to Lambs Gulch during the S&G assessment. Cheatgrass occurs in patches on south slopes but is not dominant.	ЈН	1/18/07				
NP	Native American Religious Concerns (Lisa Cresswell)	No specific sacred sites have been identified in this area by local tribes.	LC	1/12/07				
NP	Threatened, Endangered or Candidate Plant Species (Julie Hilty)	There are no federally listed or candidate plants in the allotment.	JH	1/18/07				
PI	Threatened, Endangered or Candidate Animal Species (Gary Wright)	Gray wolf (may be removed from list soon), bald eagle and Canada lynx.	GW	1/29/07				
NP	Wastes (hazardous or solid) (Timothy Fuller)	If any pesticides are used, they should be limited to those approved as described on WO IB No. 2007-028. Chemical storage should have prior permission, and only allowed with secondary containment. The permittee should indemnify the BLM in case of	TF	1/19/07				

Det ermi- nation	Resource	Rationale for Determination	Signature	Date
		a hazmat incident.		
NP	Water Quality (drinking/ground) (Lisa Jaro)	No streams or other bodies of water in the allotment have been identified by the State of Idaho as water-quality limited.	LJ	1/31/07
PI	Wetlands/Riparian Zones (Project Lead)	Same discussion as Floodplains resource.	cj	1-11-2007
NP	Wild and Scenic Rivers (Dave Freiberg)	No Wild and Scenic segments in the area.	DF	1/26/07
NP	Wilderness/WSA (Dave Freiberg)	No Wilderness or WSA in the area	DF	1/26/07
OTHER R	ESOURCES / CONCERNS**			
PI	Rangeland Health Standards and Guidelines (Project Lead)	Except for RH Standards for Streambanks/Floodplains and Riparian, the remaining applicable standards are being met in the allotment. Most riparian in allotment is in good health but some were identified as FAR and therefore not meeting the Riparian standard.	cj	1-11-2007
PI	Livestock Grazing (Project Lead)	Term grazing permit is/has expired and needs to be renewed. Current allotment mgmt needs to be reviewed and other mgmt schemes need to be analyzed to order to move all resources toward meeting or maintaining RH Standards.	Cj	1-11-07
PI	Woodland / Forestry (Kasey Prestwich)	There are approximately 144 acres of aspen and 431 acres of Douglas-fir forest types with in the allotment. There would be potential impacts on aspen stands that exist with in close proximity to water; there would be no impact on Douglas-fir stands.	Кр	1/16/2007
PI	Vegetation including Special Status Plant Species other than FWS Candidate or Listed Species (Julie Hilty)	The allotment is dominated by mid-elevation sagebrush steppe vegetation dissected by riparian zones associated with perennial and ephemeral streams. There are 3 documented populations of bugleg goldenweed (<i>Haplopappus insecticruris</i>), as well as additional potential habitat, within the allotment boundary.	ЛН	1/18/07
PI	Fish and Wildlife including Special Status Animal Species other than FWS Candidate or Listed Species e.g., Migratory Birds. (Gary Wright)	Numerous BLM Sensitive animal species are either known or are likely to make use of the upland and riparian habitat conditions on public land in the allotment.	GW	1/29/07
PI	Soils (Project Lead)	Grazing use/mechanical impacts to the soil/watershed resource are expected.	cj	1-11-2007
PI	Recreation (John Kurtz)	The allotment is within the Monument Extensive Recreation Management Area (ERMA). Within ERMA's visitor health and safety conflicts, use and user conflicts and resource protection need to be addressed.	ЈК	1/29/07
NI	Visual Resources (Dave Freiberg)	Visual resources are present, and will be impacted, and should be considered in the EA, but unlikely to very much affected.	DF	1/26/07
NP	Geology / Mineral Resources/Energy Production (John Garth)	No locatable, leasable, or saleable minerals projects have been proposed or approved in the area of interest.	JG	1/31/2007
NP	Paleontology (Lisa Cresswell)	No known paleontological resources	LC	1/12/07
NI	Lands / Access (Tara Hagen)	There are some rights-of-way authorizations and access easements within the project area; however, they will not be affected by the proposed action or alternatives.	TH	1/17/2007
NI	Fuels / Fire Management (Joe Russell)	Vegetation communities consist primarily of mid-elevation shrub steppe and mountain shrub communities but would not be affected	JR	2/02/07

Det ermi- nation	Resource	Rationale for Determination	Signature	Date
		to a degree where detailed analysis of fire and fuels management would be required.		
PI	Socio-economics (Team Lead)	PI – a potential change in allotment mgmt may have an affect upon permitholder's personal economy.	cj	1-11-2007
NP	Water Rights (Lisa Jaro)	There are stockwater and wildlife water right claims for the springs and streams within the project area; however, they will not be affected by the proposed action or the proposed alternatives.	LJ	1-26-07
NI	Wilderness characteristics (Dave Freiberg)	Wilderness Characteristics exist in this area and should probably be considered in this EA, however, the area has been evaluated for wilderness character and the wilderness values present were determined not to rise to a level requiring consideration as a Wilderness Study Area, or as Wilderness.	DF	01/26/07

Reviewer Title	Signature	Date	Comments
NEPA / Environmental Coordinator			
Authorized Officer			

APPENDIX C

Plant Species List for Deer Creek Allotment EA ID-230-2007-EA-3301

SHRUBS

Mountain snowberry Symphoricarpos occidentalis	5
Rubber rabbitbrushChrysothamnus nauseosus	
Green rabbitbrush Chrysothamnus viscidiflorus	
Antelope bitterbrush Purshia tridentata	
Chokecherry Prunus virginiana	
Snowbrush ceanothus	
Saskatoon serviceberryAmelanchier alnifolia alnifo	lia
Curl leaf mountain mahogany Cercocarpus ledifolius	
White spirea Spirea betulifolia	
Myrtle pachistima Pachistima myrsinites	
Woods roseRosa woodsii	

GRASSES & GRASS-LIKE

Bluebunch wheatgrass	Pseudoroegneria spicata
Idaho fescue	Festuca idahoensis
Cheatgrass	Bromus tectorum
Oniongrass	Melica bulbosa
Sandberg bluegrass	Poa sandbergii
Big bluegrass	Poa ampla
Nevada bluegrass	Poa nevadensis also Poa sandbergii
Bottlebrush squirreltail	Elymus elymoides
Blue wildrye	Elymus glaucus
Basin wildrye	Leymus cinereus
Sedge	<i>Carex</i> spp.
Columbia needlegrass	Achnatherum nelsonii
Slender wheatgrass	Elymus trachycaulus
Prairie junegrass	Koeleria cristata
California brome	Bromus carinatus
Mountain brome	Bromus marginatus
Pine reedgrass	Carex rupestris
Elk sedge	.Carex geyeri
Canby bluegrass	Poa canbyi
Alpine timothy	Phleum alpinum

FORBS

Lupine	Lupinus spp.
Silvery lupine	Lupinus argenteus
Arrowleaf balsamroot	Balsamorhiza sagittata
Hooker balsamroot	Balsamorhiza hookeri
Violet	Viola spp.

APPENDIX C – cont.

Ballhead waterleaf	Hydrophyllum capitatum
Yarrow	Achillea millefolium
Pussytoes	.Antennaria spp.
Rosy pussytoes	. Antennaria rosea
Tapertip hawksbeard	.Crepis acuminata
Groundsel	. Senecio spp.
Long-leaf phlox	.Phlox longifolia
Goatsbeard	.Aruncus spp.
Blue-eyed Mary	.Collinsia parviflora
Knotweed	Polygonum spp.
Wyeth buckwheat	. Eriogonum heracleoides
Slender buckwheat	.Eriogonum microthecum
Phlox	Phlox spp.
Milkvetch	Astragalus spp.
Timber loco milkvetch	Astragalus miser
Indian paintbrush	. <i>Castilleja</i> spp.
Geranium	. Geranium spp.
Sticky geranium	.Geranium viscosissimum
One-flowered helianthella	.Helianthella uniflora
Peavine	Lathyrus pauciflorus
Pale agoseris	.Agoseris glauca
Stickseed	.Hackelia patens
Tapertip onion	.Allium acuminata
Wild onion	.Allium spp.
Blazing star	. Mentzelia albicaulis
Slenderleaf collomia	.Collomia linearis
Alumroot	<i>.Heuchera</i> spp.
Cinquefoil	.Potentilla gracilis
Giant hyssop	.Agastache spp.
Biscuitroot	<i>Lomatium</i> spp.
Narrowleaf biscuitroot	.Lomatium triternatum
Hawkweed	<i>.Hieracium</i> spp.
Penstemon	Penstemon spp.
Salsify	Tragopogon dubius
Richardson tansymustard	Descurainia richardsonii
Rockcress	.Arabis spp.
Cryptantha	Cryptantha watsonii
Fleabane	Erigeron spp.
Stoneseed	Lithospermum ruderale
Bedstraw	Galium spp.
Groundsmoke	Gavophytum spp.
Aster	Macraeanthera spp.
Heartleaf arnica	.Arnica cordifolia
Phacelia	Phacelia spp.
False solomonseal	.Smilacina spp.

APPENDIX C – cont.

TREES

Aspen	Populus tremuloides
Douglas-fir	Pseudotsuga menziesii

NOXIOUS WEEDS

Diffuse knapweed	Centaurea diffusa
Canada thistle	Cirsium arvense
Bull thistle	Cirsium vulgare

