

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

Environmental Assessment
DOI-BLM-ID-T030-2011-0013-EA

**LIVESTOCK GRAZING PERMIT RENEWAL
September 19, 2014**

South East Fork Allotment

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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 in the South East Fork Allotment as proposed by the Bureau of Land Management (BLM). This EA is a site-specific analysis of impacts expected with the implementation of the proposed action and alternatives. The EA assists the BLM in determining whether any “significant” impacts could result from the analyzed actions. “Significance” is defined by the National Environmental Policy Act (NEPA) and is found in 40 Code of Federal Regulations (CFR) 1508.27 (2010). An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a “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 (DR) may be signed for the EA approving the selected alternative, whether the proposed action or another alternative. A DR, including a FONSI, documents the reasons why implementation of the selected alternative would not result in “significant” environmental impacts (effects) beyond those already addressed in the 1981 Sun Valley Grazing Environmental Impact Statement (EIS) (USDI, 1981).

1.2 Background

The action being analyzed is a renewal of the livestock grazing permit in the South East Fork Allotment in accordance with the Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration [43 CFR 4180.1(2005)], herein referred to as Fundamentals of Rangeland Health. Through this environmental analysis, a final decision will be rendered which will supersede the existing grazing use permit for the South East Fork Allotment and result in a specific season of use, number and kind of livestock, Animal Unit Months (AUMs), and management plan.

The term grazing permit for the South East Fork Allotment is currently held by Lava Lake Land & Livestock LLC, in care of Brian Bean. The current grazing permit allows for 160 head of sheep, 146 AUMs, and a season of use of June 10 through October 26 in the South East Fork Allotment. An AUM is the amount of forage needed to sustain one cow and her calf, one horse, or five sheep or goats for one month. The permitted number of sheep, however, was a result of the BLM’s computer Rangeland Administration System (RAS) which automatically calculates livestock numbers based on season of use and AUMs, and in fact, the permittee has been turning out between 1,000 to 1,500 sheep (1 band) on a yearly basis and grazing for a shorter period of time. In other words, instead of grazing 160 sheep for the entire season of use, the permittees have in the past reached the AUM total by grazing more sheep for a shorter period of time. The baseline condition analyzed in this EA will be based on the actual grazing use on the allotment over the last 20 years.

1.3 Need for the Proposed Action

According to the 2005 Fundamentals of Rangeland Health, the BLM is required to assess resource conditions on allotments in conjunction with Technical Reference 1734-6 Interpreting Indicators of Rangeland Health (USDI BLM, 2005) and the final Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management (USDI BLM, 1997), herein referred to as Idaho Standards for Rangeland Health or Rangeland Health. The BLM is also required to analyze the potential impacts of livestock trailing through 43 CFR, 4130.6-4 Crossing Permits (2005) and 43 CFR, Subpart 4160 Administrative Remedies (2005). Crossing Permits will hereinafter be referred to as trailing permits.

The underlying need for the proposed action is to renew the grazing permit in the South East Fork Allotment, to incorporate Rangeland Health into the management of the allotment and to analyze the potential impacts of continuing to permit livestock trailing through the allotment. Rangeland Health standards 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 is to ensure that the resources within the allotment are meeting or are making significant progress toward meeting the standards.

Rangeland Health evaluations were conducted in the South East Fork Allotment in 2000 and supplemental data was collected in 2010 and 2011. The findings of the Rangeland Health field evaluation, as applied in Idaho, are considered in this EA and the current permit would be renewed by incorporating the Fundamentals of Rangeland Health, or grazing management practices, into the management of the allotment. Periodic observations of the South East Fork Allotment since 2011 have not shown any changes in the health and productivity of the allotment. Riparian monitoring since 2000 has shown improvements in rangeland health and riparian condition.

1.4 Purpose(s) of the Proposed Action

Based on the mandates of several authorities¹, the purpose of the proposed action is to continue authorizing livestock grazing use and livestock trailing in the South East Fork Allotment in a manner consistent with the laws and regulations governing these activities. Therefore, the purpose of the proposed action is to determine what grazing authorization will be made and what management practices will be established in the allotment to continue meeting resource conditions as defined in the Idaho Standards for Rangeland Health.

¹ 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 to BLM Land Use Plan

Reissuance of the grazing permit would be in conformance with the 1981 Sun Valley Management Framework Plan (MFP) as implemented by the record of decision for the 1981 Sun Valley Grazing EIS. This action would not result in a change in the scope of resource use or a change in the terms, conditions, and decisions of the approved plan.

Specifically, the proposed action and alternatives 1, 2 and 3 conform to the following Land Use Plan objectives stated on page 1-1 of the Sun Valley Grazing EIS:

- To improve livestock forage production
- To maintain or improve wildlife habitat.
- To establish and/or maintain a diverse vegetation composition of grasses, forbs, and shrubs.
- To protect and provide for the needs of threatened, endangered, or sensitive plants and animals.
- To maintain or improve the visual quality of the landscapes.

1.6 Relationship to Statutes, Regulations, or other Plans

The authorities referenced in footnote 1 mandate 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 CFR 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.

The South East Fork Allotment is meeting or making significant progress towards meeting all applicable Rangeland Health standards and the proposed action would result in continued compliance with those standards. Management under any of the alternatives will result in the continued maintenance and improvement of the allotment. Establishing management practices and the appropriate grazing authorization through the incorporation of the Fundamentals of Rangeland Health will continue allotment management compliance with the long-range direction outlined in the Sun Valley Grazing EIS.

The proposed action and alternatives are in accordance with the Archeological and Historic Preservation Act of 1960 (P.L. 86-523, 16 U.S.C. 469- 469c-2), as amended, and the National Historic Preservation Act (NHPA) of 1966 (P.L. 89-665; 16 U.S.C. 470 et seq.). Consultation with the State Historic Preservation Office has occurred as required.

Section 7 of the Endangered Species Act (ESA) of 1973 outlines the procedures for Federal interagency cooperation to conserve federally listed species and their designated habitats. Section 7(a)(2) of the ESA states that each Federal agency shall, in consultation with the Secretary, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of their habitats. Since there are currently no known occurrences of federally listed species in the South East Fork Allotment, the proposed permit renewal would not impact the continued existence of listed species. Consultation under the ESA is not needed for this proposal.

The Clean Water Act of 1977, as amended in 1987, provides for the protection, restoration, and improvement in water quality. The Clean Water Act enables States to establish programs for regulating and managing point and non-point sources of pollution and directs Federal agencies to comply with State water quality laws. Various Executive Orders and Department of Interior (DOI) and BLM manuals also direct the BLM to maintain and improve water quality. The 2010 Integrated Report developed by Idaho Department of Environmental Quality (DEQ) was used for this analysis and the potential for impacts to water quality are discussed in this EA.

The proposed action is in accordance with the Migratory Bird Treaty Act, as amended, with Executive Order 13186, dated January 11, 2001 and with 43 CFR 4130.6-3, 43 CFR 4160, Section 123 of the 2012 Appropriations Omnibus Act.

1.7 Identification of Issues

Issues raised during the analysis were identified during public scoping with interested publics and the permittees. A Rangeland Health Assessment for the South East Fork Allotment dated June 4, 2002 was mailed to interested publics and the permittee. Comments were received for the South East Fork Allotment in regards to the Rangeland Health Assessment from Idaho Department of Environmental Quality on June 17, 2002 and from Idaho Department of Fish & Game on June 26, 2002.

Issues have also been raised through internal (BLM) review and interdisciplinary processes including meetings, personal communication, and an Interdisciplinary (ID) Team analysis record checklist. The analysis record checklist of all resources considered is located in the allotment Standards & Guidelines file. The following section is a list of issues relevant to this analysis.

1.7.1 Livestock Grazing & Idaho Standards for Rangeland Health

- The action being analyzed in this EA is a renewal of the livestock grazing permit in the South East Fork Allotment in accordance with the Fundamentals of Rangeland Health. Currently, the allotment is meeting or making progress towards meeting all applicable standards. The permittee has requested a change to the season of use as well as an increase in the number of sheep that can graze the allotment in order to allow for a typical band of sheep. The requested changes to the permit will be analyzed in the proposed action.
- Another action being analyzed is the authorization of livestock trailing through the South East Fork Allotment. This allotment is an important trailing route, not only for the current permittee, but also for another livestock operator in the area.

1.7.2 Soils & Water Quality

- This allotment is currently meeting the Rangeland Health standard for watersheds; however, there is some concern about the degree of mechanical impacts from livestock use and recreational use to the soil resource. Addressing these potential impacts will allow the allotment to continue to make improvement over and above those necessary to meet Rangeland Health in the future.

1.7.3 Vegetation, including BLM Sensitive Species

- The current starting date for livestock grazing in the allotment is an acceptable start-date for grazing to occur on the native grasses such as bluebunch wheatgrass (*Pseudoroegneria spicata*) and Idaho fescue (*Festuca idahoensis*) from a phenological perspective, especially because it occurs on an annual basis under the current terms of the permit.
- One rare plant, bug-leg goldenweed (*Pyrrcoma insecticruris*), has been identified in a neighboring allotment. Bug-leg goldenweed is listed as a Type 3 BLM Special Status Species plant. This species tolerates livestock grazing and effects to bug-leg goldenweed will be described in this EA.
- Idaho Department of Fish & Game brought up some concerns from the Allotment Assessment pertaining to Standard 4 (Native Plant Communities). They stated in their comment letter that there was a lack of site specific information that made it difficult to assess community diversity and structure and native plant status, production and recruitment. The BLM concurred and more vegetation data was collected in 2010 and 2011.

1.7.4 Fish & Wildlife, including Threatened, Endangered and BLM Sensitive Species

- The South East Fork Allotment provides year-round habitat for elk and mule deer. The importance of public land to these species has likely increased in recent decades as adjacent, lower elevation areas have undergone anthropogenic development.
- The allotment provides suitable habitat for BLM sensitive animal species. The potential impacts of livestock grazing are discussed in Chapter 4.

1.7.5 Wetlands & Riparian Areas

- The allotment contains several intermittent springs that support riparian vegetation as well as two perennial streams: the East Fork of the Wood River and a tributary of the Wood River called Cove Creek. Cove Creek runs through both National Forest and BLM lands but is only a perennial water source on the National Forest. The BLM portion is intermittent but there is potential for it to become perennial in the future by re-establishing a floodplain. Currently, the East Fork of the Wood River is meeting Idaho Standards for Rangeland Health. Portions of Cove Creek are not meeting but are making significant progress towards meeting Rangeland Health. The health of both of these perennial streams will be considered in the EA to ensure the allotment continues to make progress towards meeting Rangeland Health in the future.

1.7.6 Noxious Weeds & Invasive Plants

- Populations of cheatgrass (*Bromus tectorum*) and Japanese brome (*Bromus japonicus*) are present in the allotment. These infestations pose a threat to this allotment's ability to provide a healthy, diverse, and productive wildlife habitat in the future.

1.7.7 Recreation & Visitor Services

- Recreationists and visitors to public lands can be displaced by livestock grazing operations.

1.7.8 Social & Economic Values

- Healthy rangeland ecosystems can provide multiple goods and services that can increase the economic, social, and cultural well-being of individuals and communities. The socioeconomic analysis will focus primarily on Blaine County, Idaho, where the South East Fork Allotment is located.

2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION

2.1 Introduction:

The 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. The resource objective for this environmental assessment is to provide for a sustained level of livestock use compatible with meeting other resource objectives.

2.2 Proposed Action

Under this alternative, the BLM Shoshone Field Manager would continue to authorize livestock grazing in the South East Fork Allotment following the Fundamentals of Rangeland Health. This permit would be issued for a term of ten years in accordance with the management described under this alternative, and any changes to the annual livestock grazing must be approved by the authorized officer.

The South East Fork Allotment grazing permit would authorize livestock use as specified in Table 1 which would include a change in the season of use per the permittees request. This change in the season of use would allow the permittee flexibility at the start of the grazing season in order to capture the variability of phenological patterns as well as the ability to graze it in conjunction with their neighboring allotments without the need for a separate livestock trailing permit. The dates being proposed are the same dates that were approved in the 1981 Sun Valley Grazing EIS.

TABLE 1: Proposed Grazing Authorization in the South East Fork Allotment

Permittee	Number of Livestock	Grazing Begin End	%PL	Active AUMs	Suspended AUMs	Total AUMs
Lava Lake Land & Livestock LLC	2,000 Sheep	05/15 to 11/10	100%	146	37	183

Terms and Conditions on the Lava Lake Land & Livestock LLC Grazing Permit:

- In the South East Fork Allotment, all livestock grazing will be made in accordance with the grazing management set forth in the Field Office Manager's Final Decision.

As defined by the Taylor Grazing Act of 1934, active use is the current authorized use, which includes livestock grazing and suspension is the temporary withholding of active use, and permitted use is the forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease.

The grazing permit would be issued for the same active preference of 146 AUMs which is the current level authorized. The number of livestock allowed in this allotment would be increased to 2,000 head of sheep in order to more accurately reflect how the allotment is used by the permit holder. The number of sheep being proposed reflects one large band of sheep or two smaller bands of sheep actively grazing the allotment. Historically, the permittees have grazed one band of sheep in the allotment but sometimes needed to move another band through to get to other areas. Having two bands of sheep in the allotment is uncommon and would not occur every year.

This new grazing permit would continue to allow the flexibility of up to 2,000 head of sheep though since the second band of sheep would most likely move through in less than three days. When these higher numbers of livestock are using the allotment, the number of days that livestock are present would be reduced so that active permitted AUMs will not be exceeded. For example, 2,000 head of sheep can only graze in the South East Fork Allotment for no more than 11 days without exceeding the active preference of 146 AUMs. Annual flexibility in the sheep numbers would be authorized as long as grazing does not occur outside of the season of use. The South East Fork Allotment will also not allow the permittee to use the allotment prior to June 1st for consecutive years in order to allow deferred use on native vegetation. The permittee has requested the season of use to be lengthened but grazing use would not be authorized until the soils are dry and adequate growth on the vegetation has occurred.

This flexibility in active preference will allow the permittee to graze up to 2,000 head of sheep, in two bands, one large band, or any other combination as long as the number of active preference sheep does not exceed 2,000 head. The annual flexibility will not permit the permittee to turn out more than 2,000 domestic sheep. Any livestock use outside of the terms and conditions of the permit that has not been approved by the Authorized Officer will be in violation of the Lava Lake Land & Livestock LLC grazing permit and a trespass may be warranted. These livestock numbers do not include livestock trailing activities previously approved in EA No. DOI-BLM-ID-T030-2012-0044-EA or currently analyzed in this EA under the proposed action or alternative 1.

The South East Fork Allotment is subject to the requirement of 43 CFR Subpart 480-Fundamentals of Rangeland Health. This permit shall be modified, if necessary, to meet these requirements upon completion of a Standards Assessment and Determination as scheduled by the Authorized Officer.

BLM retains the discretion to modify the season of use if any of the following conditions apply: 1) Vegetation in the allotment is not ready for grazing in the first of the season, 2) The allotment has reached full permitted use, 3) Removal of livestock is necessary to protect vegetative resources or 4) Bighorn sheep are observed where contact with domestic sheep could occur.

The permit may also be modified at any time should information collected subsequent to the permit renewal indicate changes in management are needed in order to be in compliance with Fundamentals of Rangeland Health. Management must also continue to meet Rangeland Health standards and conform to guidelines for livestock grazing management. The South East Fork Allotment grazing permit would be issued for a term of ten years and would authorize livestock use as specified in Table 1.

The grazing permit would be issued based on the current active preference 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.

Additionally, this alternative would authorize a livestock trailing permit for Flat Top Grazing Association, in care of John Peavey. This permittee needs a livestock trailing permit in order to move his livestock throughout the Wood River Valley. He has grazing permits on many BLM-administered lands, National Forest lands as well as owns private lands to the southeast of the South East Fork Allotment. This permit would allow the permittee to trail up to two separate bands of sheep through the South East Fork Allotment but does not allow for sheep to overnight. This trail route through the allotment takes less than a day.

Terms and conditions specific to this trailing event have been identified below, including the trail route (refer to Map 2) and minimum distance of travel per day which is 5 miles per day for sheep. Table 2 also describes the terms and conditions on the livestock trailing permit, such as the permittee name, livestock numbers, when trails may occur and AUMs.

TABLE 2: Proposed Trailing Authorization in the South East Fork Allotment

Permittee	Number of Livestock	Grazing Begin End	%PL	Active AUMs	Suspended AUMs	Total AUMs
Flat Top Grazing Association	4,000 Sheep	06/01 to 11/15	100%	0	0	0

Terms and Conditions specific on the Livestock Trailing Permit for Flat Top Grazing Association in relation to South East Fork:

- Livestock trailing in Home Place, Hyndman, Little Wood, Norland and South East Fork allotments will be limited to one day per trailing event. No overnighting on BLM administered lands is permitted without pre-approval of the authorized officer.
- Permittee is allowed to trail 2 bands of 2000 sheep through Indian Creek Allotment or 2 bands of 2000 sheep through South East Fork Allotment and Indian Creek Allotment. These two trail routes are alternate routes for 4000 sheep.
- Bedding of livestock will not be permitted within 500 feet of riparian areas. If steep terrain or other topographical features do not allow a 500 foot buffer, bedding of livestock would not be permitted immediately adjacent to riparian areas.

- One day trails through multiple grazing allotments will only be billed in one allotment to avoid duplicate billing. This may lead to some allotments having a zero in the AUM column.
- Livestock trailing will occur along the route outlined in the attached map and in accordance with Authorized Officer's Final Decision EA No. DOI- BLM-ID-T030-2012-0044-EA.

2.2.1 Grazing Management under the Proposed Action

Sheep are generally herded in bands, utilize steeper terrain, have more continuous movement, different forage requirements and commonly graze in a "pass-through" fashion on their way to other allotments. Because of the herded management of sheep bands, topographic or infrastructure boundaries rather than fence lines may be more useful for determining grazing routes and sequences than the pasture boundaries that were established to control cattle.

The following grazing management will apply under the proposed action:

- To prevent areas from being utilized twice in a season, livestock would not be permitted to stay and graze in an area which had already been used earlier that year, however they would be allowed to move through previously grazed areas in route to another destination.
- Range readiness guidelines will be adhered to. Range readiness is defined as when the soil is firm and the key species have four to six inches of growth, except for Sandberg's bluegrass which needs to be in the three- to-four-leaf stage.
- Livestock grazing and/or trailing prior to June 1st will not be authorized for consecutive years in order to allow for deferred use on native vegetation. This will allow the permittee to trail through the South East Fork Allotment and reach other destinations on private, State and BLM administered lands without the need to issue a trailing permit in the future.
- Sheep are also required to move to a different bed ground at a minimum of every 5 days or sooner if resource conditions dictate. Conditions that would warrant moving the bed ground sooner would be if use of key species is close to or exceeds the recommended 40% utilization levels on upland vegetation.
- No bedding of sheep will be permitted within 500 feet of the Cove Creek drainage in order for the creek to continue making progress in meeting Idaho Standards for Rangeland Health.
- Trailing by other livestock operators (other than Flat Top Grazing Association) that do not have a grazing permit for the South East Fork Allotment could be approved following the completion of NEPA. Trailing permits will be authorized in accordance with 43 CFR 4130.6-3 (2005) - Crossing Permits and 43 CFR 4160 (2005) - Administrative Remedies; including Proposed Decisions, Protests, Final Decisions and Appeals).

2.2.2 Rangeland Monitoring under the Proposed Action

Monitoring, as defined in 43 CFR 4100.0-5 (2005), means the periodic observation and orderly collection of data to evaluate: 1) effects of management actions; and 2) effectiveness of actions in meeting management objectives.

Nested frequency studies would continue to be done at the key study sites presently located within the allotment. Nested frequency would be read at each site and photos would be taken at each standard 3x3 photo plot. Proper Functioning Condition (PFC) would also continue to be collected at the riparian photo point presently located on Cove Creek. These sites would be read periodically and at a minimum of once per ten year permit renewal cycle. This data will be combined with trend monitoring data collected in past years so that long-term rangeland trend can be determined. Currently, the South East Fork Allotment is experiencing a static trend in rangeland health but the PFC shows that there has been improvement riparian health over the past 15 years. As long as a static or upward trend continues and current on the ground livestock management continues, no additional monitoring will be required since the South East Fork Allotment is meeting, or making significant progress towards meeting all applicable Rangeland Health standards.

2.3 Alternative 1

Under this alternative, the BLM Shoshone Field Manager would continue to authorize livestock grazing in the South East Fork Allotment following the Fundamentals of Rangeland Health [43 CFR 4180.1(2005)] to continue meeting Rangeland Health standards in the future. This permit would be issued for a term of ten years in accordance with present management. The only difference between alternative 1 and the proposed alternative is that alternative 1's season of use begins on 06/10, while the Proposed Alternative's season of use begins on 05/15.

The South East Fork Allotment grazing permit would authorize livestock use as specified in Table 1 and Table 2. The grazing permit would be issued for the current active AUM preference of 146 AUMs which is the level currently authorized as well as the current season of use. The number of livestock allowed in this allotment would be increased to 2,000 head of sheep, which is also included in the proposed action. When these higher numbers of livestock are using the allotment, the number of days that livestock are present would be reduced so that active permitted AUMs would not be exceeded.

Annual flexibility in the sheep numbers would be authorized as long as grazing does not occur outside of the season of use and the active preference on the grazing permit is not exceeded. This flexibility will allow the permittee to graze up to 2,000 head of sheep, in two bands, one large band, or any other combination as long as the total number of sheep does not exceed 2,000 head. The annual flexibility will not permit the permittee to turn out more than 2,000 domestic sheep. These conditions are the same for this alternative as they are under the proposed action. The only change is that this grazing season will remain at 06/10 through 10/26. If Lava Lake Land & Livestock wishes to trail livestock through the South East Fork Allotment before or after this permit date, a livestock trailing permit would need to be issued. Any livestock use outside of the terms and conditions of the permit that has not been approved by the Authorized Officer will be in violation of the Lava Lake Land & Livestock LLC grazing permit and a trespass may

be warranted. These livestock numbers do not include livestock trailing activities previously approved in EA No. DOI-BLM-ID-T030-2012-0044-EA or currently analyzed in this EA under the proposed action or alternative 1.

The dates at which livestock could use the allotment may change, which will shorten the season, if any of the following conditions apply: 1) The vegetation in the allotment is not ready for grazing in the first of the season, 2) The allotment has reached full permitted use, 3) removal of livestock is necessary to protect vegetative resources or 4) bighorn sheep are observed where contact with domestic sheep could occur.

The permit may be modified at any time should information collected subsequent to the permit renewal indicate changes in management are needed in order to be in compliance with fundamentals of Rangeland Health. Management must also continue to meet Rangeland Health standards and conformance to guidelines. All of these conditions are the same as the proposed action.

The South East Fork Allotment grazing permit would be issued for a term of ten years and would authorize livestock use as specified in Table 3. This table also includes a description of the terms and conditions on the current grazing permit, such as the permittee name, livestock numbers, when grazing begins and ends, percent of BLM administered lands, and AUMs.

TABLE 3: Alternative 1 Grazing Permit Authorization

Current Permittee	Type of Grazing Activity	Number of Livestock	Grazing Begin End	%PL	Active AUMs	Suspended AUMs	Total AUMs
Lava Lake Land & Livestock LLC	Active Preference	2,000 Sheep	6/10 to 10/26	100%	146	37	183
Flat Top Grazing Association	Trailing Preference	4,000 Sheep	06/01 to 11/15	100%	0	0	0

Terms and Conditions on the Lava Lake Land & Livestock LLC Grazing Permit and the Terms and Conditions specific on the Livestock Trailing Permit for Flat Top Grazing Association in relation to South East Fork would remain the same as what is described under the Proposed Action.

2.3.1 Grazing Management under Alternative 1

The grazing permit would be issued with the same grazing management annual indicators as stated in the proposed action.

2.3.2 Rangeland Monitoring under Alternative 1

The grazing permit would be issued with the same rangeland monitoring as stated in the proposed action.

2.4 Alternative 2 – No Action Alternative

Under this alternative, the BLM Shoshone Field Manager would continue to authorize livestock grazing in the South East Fork Allotment following the Fundamentals of Rangeland Health to continue meeting Rangeland Health standards in the future. This permit would be issued for ten years in accordance with the present management shown in Table 4. The permit would be issued for the same number of livestock, kind of livestock, season of use, and same active AUM preference level as presently authorized but the sheep numbers would be limited to 160 head of sheep only. Please refer to Table 4 - Current Grazing Permit Authorization (No Action Alternative) for a description of the terms and conditions that would be required under this alternative.

2.4.1 Grazing Management under Alternative 2

The grazing permit would be issued with the same rangeland monitoring practices as stated in the proposed action. Also under this alternative, trailing of livestock through the allotment would be permitted per the Shoshone Field Office Livestock Trailing EA, EA No. DOI-BLM-ID-T030-2012-0044-EA. Refer to Section 2.3.1 for a description of the livestock trailing authorized in the South East Fork Allotment (Table 2).

2.4.2 Rangeland Monitoring under Alternative 2

The grazing permit would be issued with the same terms and conditions.

2.5 Alternative 3 - No Grazing Alternative

Under this alternative, the BLM Shoshone Field Manager would issue a non-use grazing permit, discontinuing livestock grazing in the South East Fork Allotment for a term of 10 years. After the permit expires, the allotment would be assessed and evaluated to determine whether livestock grazing would be re-authorized.

Even though livestock grazing would not be authorized on public lands within the allotment, a series of management actions would still occur. These actions include monitoring of the riparian systems, conducting long-term trend studies, and monitoring utilization by big game species, authorizing other livestock to continue trailing through the allotment, winterizing range improvements such as springs and trough systems since there will be no requirements to maintain them. This alternative could also lead to range improvement project dilapidation.

2.5.1 Grazing Management under the No Grazing Alternative

Under the no grazing alternative, trailing of livestock through the allotment could be permitted per the BLM Shoshone Field Office Livestock Trailing EA, EA No. DOI-BLM-ID-T030-2012-0044-EA. Refer to Section 2.2 for a description of the livestock trailing authorized in the South East Fork Allotment (Table 2).

The BLM Shoshone Field Office would monitor the allotment to ensure that unauthorized livestock grazing from neighboring allotments and/or private lands did not occur on public lands in the South East Fork Allotment.

2.5.2 Alternatives Considered but Dropped from Further Analysis

The BLM Shoshone Field Office ID Team also considered developing an alternative that reduces grazing use in the South East Fork Allotment. A reduction in AUMs, season of use, or livestock numbers was studied but dropped from further analysis because the allotment is meeting or making significant progress toward meeting all applicable standards of Rangeland Health under the current livestock levels.

2.6 Alternative Comparisons

This table describes the differences in the terms and conditions between all of the alternatives, such as the livestock numbers, when grazing begins and ends, percent of BLM administered lands, and AUMs.

TABLE 4: Alternative Comparison - Active Preference in the South East Fork Allotment

Alternative	Livestock Number	Season of Use	# Days Livestock Can Use Allotment	AUMS
Proposed Action – <i>Change in Livestock Numbers and season of use</i>	2000 Sheep	05/15 to 11/10	11 Days	146
Alternative 1- <i>Change in livestock numbers</i>	2000 Sheep	06/10 to 10/26	11 Days	146
Alternative 2 – <i>No Action</i>	160 Sheep	06/10 to 10/26	138 Days, or the whole season	146
Alternative 3 – <i>No Grazing</i>	0 Sheep	None	0	0

* All of these alternatives would also permit trailing activities as described in Table 2 respectively.

The number of days that Lava Lake Land & Livestock are permitted to graze has been calculated with a 100% PL, or public land. If, in the future, Lava Lake Land & Livestock acquires private land adjacent to the South East Fork Allotment then the terms and conditions of the permit will reflect a change to their %PL. A change to the ownership within the allotment boundaries will affect the number of days livestock can graze in the allotment. Under all alternatives except the no grazing alternative, the number of days that livestock would be permitted to graze is subject to change but active preference of 146 AUMs will not be exceeded.

3.0 AFFECTED ENVIRONMENT

3.1 Introduction:

This chapter presents the affected environment (i.e., the physical, biological, social and economic resources) of the allotment as well as the baseline for comparison of impacts and consequences described in Chapter 4.

3.2 General Setting:

The South East Fork Allotment is located in Blaine County; approximately 7 miles southeast of Ketchum, Idaho (refer to Map 1). The elevation ranges from 6,100 feet in the drainage bottoms to 8,750 feet on the highest ridge. The South East Fork Allotment borders privately owned lands to the north, U.S. Forest Service lands to the east and the Indian Creek Allotment to the south. The South East Fork Allotment is comprised of 1,909 federal acres managed by the BLM and 6 private acres. The South East Fork Allotment has not had any documented wildfires within the allotment boundary since the 1960s.

Due to this allotment's close proximity to Hailey and the Wood River valley, this area receives heavy recreational use in the form of hunting, hiking, mountain biking and OHV activities. The BLM land within the allotment has an Off-Highway Vehicle (OHV) classification as "Open". The Open classification is defined as an area where all types of vehicle use are allowed.

3.3 Resources and Supplemental Authorities/Issues Bought Forward for Analysis

During the analysis process, the ID Team considered several resources and supplemental authorities and determined that the resources discussed below would be affected by the proposed action or alternatives. The project file contains the ID Team analysis record checklist which is a complete list of resources and supplemental authorities that were considered and the reasons why some resources were not analyzed in detail.

3.3.1 Livestock Grazing & Idaho Standards for Rangeland Health

The Wood River Valley, which encompasses the South East Fork Allotment, has had sheep use since the 1860s. According to the USDA National Agricultural Statistics Service, prior to World War II the historical livestock use and sheep numbers in Idaho were substantially higher than what they are today. The number of sheep in Idaho has fluctuated since the 1900s but overall they have decreased from a record high of more than 2.4 million head of sheep in 1920, to 231,000 head of sheep in 2012. The lowest recorded number of sheep in Idaho was 210,000 head in 2009 (USDA NASS, 2014).

The steep slopes in South East Fork Allotment make it more suitable for sheep grazing than for cattle grazing since sheep are small, sure-footed and well suited for travel through rough topography. Sheep prefer hillsides to the confining nature of riparian bottoms which is the case in the South East Fork Allotment and sheep can offer several options for achieving proper management within grazing allotments. Sheep use may be more desirable than cattle use in some areas due to the herders' control over location, timing, degree, duration and frequency of use (TR-1737-20, 2006).

The South East Fork Allotment consists of two main canyons and many smaller gulches. The eastern portion of the allotment is a panhandle that has Cove Creek running north and Driveway Gulch running northeast. The main body of the allotment has Pumphrey Canyon and many other smaller gulches while the northwest portion of the allotment has the East Fork of the Big Wood River running east. The use made by sheep in the allotment is spread throughout many of the slopes, ridgetops and draws.

Sheep typically graze the allotment in the early summer and sometimes again in the fall. Over the past 20 years, the permittee has started grazing in the allotment between June 1st and June 20th and typically kept the sheep in the allotment for 1 to 4 weeks. The 1981 Sun Valley Grazing EIS delayed the season of use in the South East Fork Allotment from May 1st to May 15th but kept the end date for grazing season as November 10th. The AUMs remain constant throughout all alternatives at 146 active sheep AUMs and is the number of AUMs still allocated today. With these numbers being used, the South East Fork Allotment has typically had light utilization by the sheep bands.

Lava Lake Land & Livestock LLC, in care of Brian Bean, acquired this grazing permit in 2002 and is the current permittee in the South East Fork Allotment. The total active preference for the South East Fork Allotment is 146 AUMs and the season of use is 6/10 to 10/26. Even though the grazing permit shows season long use, the current livestock use has been by one band of sheep, averaging 1000 to 1,500 head, for five to seven days somewhere between late June and late August. The current grazing permit authorization is shown in Table 5.

From 1982 to 2012, the South East Fork Allotment was managed in conjunction with the U.S. Forest Service's Cove Creek Sheep & Goat Allotment through a Memorandum of Understanding (MOU). The Cove Creek Sheep & Goat Allotment is approximately 8,790 acres and is located south and east of the South East Fork Allotment. The MOU was cancelled in 2012 in order for the BLM to manage the grazing and trailing bills internally once again.

In 1985, an environmental assessment was prepared to convert the South East Fork Allotment and the Forest Service's Cove Creek Allotment from sheep use to cattle use. The permittee on the Forest Service's Hailey Creek Allotment (located south of the other two allotments) requested the conversion so that all three allotments could be used together in a grazing rotation once pasture fences were built. The Decision was signed but was never implemented because the cost of the pasture fences that were proposed would not have been cost effective. Since the project was never completed, the AUMs automatically reverted back to sheep.

Per the request of the U.S. Forest Service, the permittee has been resting the Cove Creek panhandle since 1992 in order to accelerate recovery of the riparian area. The US Forest Service also changed the season of use to what is shown currently in Table 5. The season of use changed in order to lessen the impacts to native vegetation from annual spring grazing. The use in the fall does not occur on an annual basis but typically begins between October 15th and October 25th and lasts 2 to 4 days.

TABLE 5: Current Grazing Permit Authorization (No Action Alternative)

Current Permittee	Livestock #	Grazing		%PL	Active AUMs	Suspended AUMs	Total AUMs
		Begin	End				
Lava Lake Land & Livestock	160 Sheep	6/10	10/26	100%	146	37	183

This table describes the terms and conditions on the current grazing permit, such as the permittee name, livestock numbers, when grazing begins and ends, percent of BLM administered lands, and AUMs. The “% PL” column, or the percent of public land, represents the percentage of BLM administered lands, and associated AUMs, within the South East Fork Allotment boundary. South East Fork Allotment is currently 100% BLM lands which means that all of the lands within the allotment are federally managed BLM Administered lands.

The permitted number of sheep was a result of the RAS computer system automatic calculation based on season of use and AUMs, and in fact, the current and past permittees have been turning out between 1,000 to 1,500 sheep (1 band) on a yearly basis and grazing for a shorter period.

Currently, one permittee is permitted to trail livestock through the South East Fork Allotment following the BLM Shoshone Field Office Livestock Trailing Permit EA No. DOI-BLM-ID-T030-2012-0044-EA. The livestock trailing that has been approved for this applicant, Flat Top Grazing Association, is permitted as specified in Table 2 (refer to Map 1). This trailing permit will be carried through the analysis in both the proposed action and alternative 1 in order to allow this trailing activity to occur in the future for multiple years. The current permit holder in the South East Fork Allotment, Lava Lake Land & Livestock, will not need a trailing permit in their own allotment, therefore, all trailing of livestock by the current permit holder will be permitted through their active preference, not through a trailing permit. Applications to trail in the allotment by Flat Top Grazing Association in the future will be permitted for the term of this grazing permit as long as no changes occur to the terms and conditions. Applications to trail livestock in the allotment by other applicants will be approved according to the current regulations.

There has been actual use reporting completed over the years but it is not an accurate depiction of what occurred specifically on the South East Fork Allotment since grazing has been managed by the National Forest through an MOU, and the use between the BLM allotment and the Forest Service allotment was combined. Sheep trailing by other sheep operators has occurred in the allotment mostly in the fall months. Even though the sheep use in South East Fork Allotment was less than the neighboring National Forest lands, historically the sheep were still present for an extended period of time. The historical (use prior to 1990) season long presence has led to Cove Creek not meeting Standard 2 (Riparian Areas and wetlands) and Standard 3 (Stream Channel/Floodplain). The panhandle of the South East Fork Allotment on the east side, where Cove Creek and Driveway Gulch are located, was also a very popular trail route for other permittees.

The lower end of Cove Creek, near the mouth of Driveway Gulch, has been rested by the permittee and other livestock operators that trail through the allotment since the 1990s at the request of the National Forest. The permittee and other users in the area have been complying. The actively grazing sheep bands spend about one to two days while the trailing bands of sheep spend less than one day in the South East Fork Allotment. Because of the distribution of natural surface water and developed springs, the privately owned areas were likely used more heavily than the public parcels on the BLM and the National Forest.

The BLM completed Rangeland Health standards for the South East Fork Allotment in 2000. The Idaho Department of Fish & Game submitted a comment letter for the South East Fork Allotment in 2002 stating that there was not enough vegetation data to make a determination as to whether the allotment was meeting the Native Plant Community Standard or not. After reviewing the data, the BLM concurred and supplemental data was collected in 2010 and 2011 in the form of Rangeland Health forms, PFC and long-term trend data. A second long-term trend site was also added at this time in order to have more data on the vegetative health within the allotment. The supplemental Rangeland Health data has been included in this EA and can be seen in Table 6.

Under the current livestock management, the South East Fork Allotment is meeting or making progress towards meeting all applicable Rangeland Health standards and livestock grazing is in conformance with Guidelines for Livestock Grazing Management. Table 7 is a summary of the Rangeland Health Determination in which Standard 1 (Watersheds), Standard 4 (Native Plant Communities), Standard 7 (Water Quality) and Standard 8 (Threatened and Endangered Plants and Animals) are all meeting Rangeland Health and Standard 2 (Riparian Areas and wetlands) and Standard 3 (Stream Channel/Floodplain) are making significant progress towards meeting Rangeland Health. Standard 5 (Seedings) and Standard 6 (Exotic Plant Communities) do not apply to the South East Fork Allotment.

A determination has been made that Standard 2 (Riparian Areas and wetlands), and Standard 3 (Stream Channel/Floodplain) are not being met due to heavy grazing pressure prior to 1950 causing the floodplain to drop about 6-10 feet along Cove Creek. Another cause for the failure of these standards was the placement of the road along the creek. This issue was resolved in 2005 by the U.S. Forest Service and the road has since been moved away from the creek. Over the past 9 years, a detectable improvement has been made in streamside vegetation and streambank stability.

TABLE 6: Evaluation Summary Sheet

Indicators	Attributes S = Soil & Site Stability H=Hydrologic Function B = Biotic Integrity	Degree of Departure from Ecological Site Description and/or Ecological Reference Area(s)				
		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
1. Rills	S, H					Site 1, Site 2, Site 3
2. Water-flow Patterns	S, H					Site 1, Site 2, Site 3
3. Pedestals and/or terracettes	S, H					Site 1, Site 2, Site 3
4. Bare ground	S, H					Site 1, Site 2, Site 3
5. Gullies	S, H				Site 1	Site 2, Site 3
6. Wind-scoured, blowouts, and/or deposition areas	S					Site 1, Site 2, Site 3
7. Litter movement	S					Site 1, Site 2, Site 3
8. Soil surface resistance to erosion	S, H, B				Site 1	Site 2, Site 3
9. Soil surface loss or degradation	S, H, B				Site 1	Site 2, Site 3
10. Plant community composition and distribution relative to infiltration	H				Site 1	Site 2, Site 3
11. Compaction layer	S, H, B					Site 1, Site 2, Site 3
12. Functional/structural groups	B				Site 2	Site 1, Site 3
13. Plant mortality/decadence	B					Site 1, Site 2, Site 3
14. Litter amount	H, B					Site 1, Site 2, Site 3
15. Annual production	B					Site 1, Site 2, Site 3
16. Invasive plants	B				Site 1, Site 2	Site 3
17. Reproductive capability of perennial plants	B					Site 1, Site 2, Site 3

TABLE 7: Summary of Rangeland Health Assessment Determination

<i>Standard</i>	<i>South East Fork Allotment Results</i>
Standard 1 - Watersheds	Meeting
Standard 2 - Riparian Areas and wetlands	Not Meeting, but making significant progress
Standard 3 - Stream Channel/Floodplain	Not Meeting, but making significant progress
Standard 4 - Native Plant Communities	Meeting
Standard 5 - Seedings	Does not Apply
Standard 6 – Exotic Plant Communities	Does not Apply
Standard 7 - Water Quality	Meeting
Standard 8 - Threatened and Endangered Plants and Animals	Meeting

3.3.2 Soils & Water Quality

A rangeland health field assessment was conducted in the South East Fork Allotment in July 2000 and additional data was collected in July of 2010. The assessment consisted of evaluating the key ecological site(s) found within the allotment. A summary of the data obtained from the assessment for applicable rangeland health standards has been included in Section 3.3.1.

Soils

The soils are complex in the South East Fork Allotment and are based primarily on the steep topography and aspect. There are four main ecological sites that are utilized by livestock in this allotment and one forested site. The forested site, which is present on almost half of the acres in the allotment, is a Douglas-fir/serviceberry site. This site is associated with mountain sides on north and east exposures and slopes range from 30-60 percent. The average annual precipitation is about 20" and most of the precipitation comes during the plant dormant period of October through April in the form of snow. The average frost free period is less than 60 days. The soils on this site are grayish brown colored, gravelly loams, extremely cobbly loams and in some areas sandstone. These soils can be over 40 inches deep and are derived from quartzitic sandstone and related rock. Available water capacity is low but erosion hazard is very severe due to the steepness of slope and gravelly component. It is utilized by livestock but not as extensively as other areas since access is limited so it will not be discussed further.

The ecological sites that will be discussed further include the South Slope Stony 12-16" site, a North Slope Loamy 16-20" site, a North Slope Loamy 18-24" site and a Loamy 12-16" site. The additional North Slope Loamy site with 18"-24" of precipitation is extremely similar in slope, soil type and ground cover to the North Slope Loamy 16-20" of precipitation so they have been combined together in the soil and vegetation sections of this document to alleviate confusion. All of the characteristics described below for the North Slope Loamy 16-20" are the same except for the following difference. The North Slope Loamy 18"-24" site typically occurs at a slightly higher elevation and has more precipitation which leads to a more diverse mountain shrub community than the North Slope Loamy site with the lower precipitation.

The South Slope Stony 12-16" site usually occurs on steep mountain sides on south, south-east, or west aspects. Slopes are generally 20-60 percent and the soils are gravelly, very gravelly, or cobbly loams, and gravelly coarse sandy loams. Approximately one-third of the precipitation comes as snow during the plant dormant period of October to April. The average frost free period is 60-100 days. Available water capacity is low to medium and erosion hazard is moderate to high when the vegetation is scarce or removed. This ecological site is represented in Rangeland Health Site 1 and Rangeland Health Site 2.

The North Slope Loamy 16-20" site is associated with mountain sides on north, east and northwest exposures and slopes range from 20-60 percent. The average annual precipitation ranges from 16-20" and most of the precipitation comes in the form of snow during the plant dormant period of October through April. The average frost free period is 45-60 days. The soils on this site are dark colored, gravelly loams, gravelly silt loams and clay loams over 40 inches deep and are derived from volcanic, metasedimentary, or granitic materials. The infiltration and internal water movement is good. Both the available water capacity and erosion hazard are moderate when the vegetation is scarce or removed. This ecological site is represented as minor inclusions on Rangeland Health Site 1 and Rangeland Health Site 2.

The Loamy 12-16" site is associated with fan terraces and undulating foothills and slopes range from 2-30 percent. The average annual precipitation ranges from 12-16" and most of the precipitation comes during the plant dormant period of October through April in the form of snow. The average frost free period is 60-90 days. The soils on this site are loams and silt loams over 20 inches deep. The infiltration is moderate to slow. Available water capacity is moderate to high and erosion hazard is high when the vegetation is scarce or removed. This ecological site is represented in Rangeland Health Site 3.

Site 1. South Slope Stony 12-16" mountain big sagebrush/bluebunch wheatgrass range site

Field measurements found that vascular plants provide 73% of the cover on average for this site, litter in contact with soil on 6%, litter standing on 4%, rock on 13% and bare ground found on 4% of the transect points. There was cheatgrass found in the transect and it was calculated to be 26.5% cover. Per the NRCS site guide, ground cover by litter, rock, and vegetation should be 75 to 90 percent. According to the data collected, the appropriate range site guide reveals that this site is slightly lower than what is described in the NRCS site guide but is still falls within the NRCS site guide.

Site 2. South Slope Stony 12-16" mountain big sagebrush/bluebunch wheatgrass range site

Field measurements found that vascular plants provide 95.5% of the cover on average for this site, litter in contact with soil was 1%, litter standing was 2.5%, rock was .5% with bare ground found on .5% of the transect points. There was cheatgrass found in the transect and it was calculated to be 14.5% cover. Per the NRCS site guide, ground cover by litter, rock, and vegetation should be 75 to 90 percent. According to the data collected, the appropriate range site guide reveals that this site is slightly higher than what is described in the NRCS site guide. One of the factors that this site does not fall within the NRCS site guide is due to the populations of cheatgrass.

Site 3. Loamy 12-16" mountain big sagebrush/bluebunch wheatgrass range site

Field measurements found that vascular plants provide 94.5% of the cover on average for this site, litter in contact with soil was 1.5%, litter standing was 1.5%, with bare ground found on 1.5% of the transect points. There was no cheatgrass found in the transect nor throughout the ecological site. Per the NRCS site guide, ground cover by litter, rock, and vegetation should be 35 to 45 percent. According to the data collected, the appropriate range site guide reveals that this site is higher than what is described in the NRCS site guide but since it is comprised of all native vegetation it is just a very productive inclusion.

Water Quality

The segment of East Fork of the Wood River that runs through the South East Fork Allotment was previously identified as an impaired water body by the Idaho Department of Environmental Quality (DEQ) but the sub-basin assessment determined the water quality to be supporting beneficial uses. Cove Creek, located southeast of the Wood River, was placed on Idaho’s 303(d) List in 1998. At that time, the causes of impairment were unknown. This stream was monitored extensively for the Big Wood River Sub-Basin Assessment, which has recommended that Cove Creek remain on Idaho’s 303(d) list. The Big Wood River Sub-basin Assessment found that the entire stretch is not meeting its beneficial uses and/or state water quality standards for turbidity, sediment, or phosphorus.

An updated 303(d) List was released in 2008 and 2010 by the Idaho Department of Environmental Quality and in both reports, the East Fork of the Wood River and Cove Creek segment that is within the South East Fork Allotment (ID17040219SK011_03 (East Fork Wood River - source to Hyndman Creek) was delisted. “Delisted” refers to that segment currently having the information available in order to make established changes for improvement. The South East Fork Allotment is currently meeting Standard 7 for Rangeland Health and grazing conforms with guidelines for livestock management. It has also been determined that it is fully supporting beneficial uses such as salmonid spawning and secondary contact recreation but is not supporting beneficial uses such as cold water aquatic life.

TABLE 8: Watershed Indicator Summary

Indicators for Standard 1	Degree of Departure from Ecological Site Description and/or Ecological Reference Area(s)				
	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
1. Rills					Site 1, Site 2, Site 3
2. Water -flow patterns					Site 1, Site 2, Site 3
3. Pedestals and/or Terracettes					Site 1, Site 2, Site 3
4. Bare Ground					Site 1, Site 2, Site 3
5. Gullies				Site 1	Site 2, Site 3
6. Wind-scoured, blowouts, and/or deposition areas					Site 1, Site 2, Site 3
7. Litter movement					Site 1, Site 2, Site 3
8. Soil surface resistance to erosion				Site 1	Site 2, Site 3
9. Soil surface loss or degradation				Site 1	Site 2, Site 3
10. Plant community composition & distribution relative to infiltration				Site 1	Site 2, Site 3
11. Compaction layer					Site 1, Site 2, Site 3

Indicators for Standard 1	Degree of Departure from Ecological Site Description and/or Ecological Reference Area(s)				
	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
14. Litter amount					Site 1, Site 2, Site 3
Rangeland Health Attributes	S1 S2 S3	S1 S2 S3	S1 S2 S3	S1 (4) S2 (0) S3 (0)	S1 (8) S2 (12) S3 (12)
Standard 1 (Indicators 1-11, & 14)	0	0	0	4	32
Overall Rating for Sites					X

Allotment Summary for Standard 1 (Watersheds):

The overall rating for Standard 1 is none to slight. Thirty-two indicators (89%) were marked none to slight and four indicators (11%) were marked slight to moderate. The South East Fork Allotment is comprised of steep slopes and some water flow patterns are expected on the site.

3.3.3 Vegetation, including BLM Sensitive Species

Ecological Site Descriptions

An ecological site is defined as a distinctive kind of land with specific physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation (USDA NRCS, 1997). All of the ecological sites were developed by the Natural Resources Conservation Service (NRCS) and each ecological site lists the site characteristics, plant communities, site interpretation and supporting information. Ecological site descriptions contain information about the ecological dynamics of each site and are used as the standard or reference for resource evaluations and assessments such as trend, similarity index, and rangeland health (Boltz, 2002).

The NRCS ecological site descriptions use dry weight (production) for a measure of community composition. The dry weight of plants for production calculates the amount of total annual plant production that is composed of forage species, or species likely to be used by grazing animals. It is a time consuming but accurate method for quantifying herbage production for herbaceous species. The BLM typically uses the line-point intercept method for percent composition by cover. Line-point intercept is a rapid, accurate method for quantifying soil cover, including vegetation, litter, rocks, and biotic crusts. Line-point intercept measurements are related to wind and water erosion, water infiltration, and the ability of the site to resist and recover from degradation (USDI BLM, 1999). While each of these methods has its own values and weaknesses it should be recognized that they are not directly comparable.

The allotment contains both shrub steppe and coniferous forest plant communities. The shrub communities occupy about 55% of the allotment with forest communities comprising the remaining 45% of the allotment area. The primary forest habitat type is Douglas-fir/ninebark (*Pseudotsuga menziesii/Physocarpus opulifolius*) with either a ninebark or pinegrass (*Calamagrostis rubescens*) phase. The next most prevalent forest habitat type on the allotment is Douglas-fir/mountain snowberry with a chokecherry (*Prunus virginiana*) phase. Scattered pockets of the subalpine fir/elk sedge (*Abies lasiocarpa/Carex garberi*) habitat type occur on north and east facing slopes at upper elevations. Forest habitat types of Douglas-fir/pinegrass site and Douglas-fir/elk sedge site represent the drier end of the moisture regime for forested plant communities on the allotment.

There are four main ecological sites that are utilized by livestock in this allotment. Other sites are present but are not as important from a livestock grazing standpoint due to dense trees or extremely steep slopes in excess of 60%. Rangeland Health field studies were conducted in the South East Fork Allotment during 2000 and again in 2010. Three Rangeland Health sites were selected for data collection because they represented the ecological sites well. The main ecological sites that are utilized by livestock include a mountain big sagebrush/ bluebunch wheatgrass site (*Artemisia tridentata vaseyana/Pseudoroegneria spicata*), a mountain big sagebrush/mountain snowberry/Idaho fescue site (*Artemisia tridentata vaseyana/Symphoricarpos oreophilus/Festuca idahoensis*), a mountain big sagebrush/Idaho fescue site (*Artemisia tridentata vaseyana/Festuca idahoensis*), and a loamy mountain big sagebrush/bluebunch wheatgrass site.

The sites described in the vegetation section are in conjunction with the site descriptions in the soils section as the South Slope Stony 12-16" site, the North Slope Loamy 18-24" site, the North Slope Loamy 16-20" site, and a Loamy 12-16" site respectively. The climate in general, in the South East Fork Allotment is characterized by cool summers and cold winters, with snow cover most of the winter. Most of the precipitation occurs during the autumn and winter months and the optimum plant growth period is from June through mid-August.

The **mountain big sagebrush/ bluebunch wheatgrass ecological site** is associated with mountain sides on south, west or southeast exposures and slopes range from 20-60 percent. The NRCS site guide description for the mountain big sagebrush/bluebunch wheatgrass ecological site states that the visually dominant vegetation of the site should be mountain big sagebrush and bluebunch wheatgrass. Rangeland Health Site 1 and Site 2 are associated with this ecological site.

The potential natural plant community for grasses should be bluebunch wheatgrass with lesser amounts of Indian ricegrass (*Achnatherum hymenoides*), Nevada bluegrass (*Poa nevadensis*), Colombia needlegrass (*Stipa colombiana*), Sandberg bluegrass (*Poa secunda*), bottlebrush squirreltail (*Elymus elymoides*), sedge, and basin wildrye (*Leymus cinereus*). Forbs in the potential natural plant community include tapertip hawksbeard (*Crepis acuminata*) and with lesser amounts of lupine (*Lupinus spp.*), buckwheat (*Eriognum spp.*), phlox (*Phlox spp.*), Hooker's balsamroot (*Balsamorhiza hookeri*), Indian paintbrush (*Castilleja spp.*), sticky geranium (*Geranium viscosissimum*), helianthella (*Helianthella ssp.*), and milkvetch (*Astragalus spp.*). Shrubs in the potential natural plant community include mountain big sagebrush and

antelope bitterbrush (*Purshia tridentata*) with lesser amounts of currant, green rabbitbrush (*Chrysothamnus viscidiflorus*), chokecherry, and mountain snowberry.

The **loamy mountain big sagebrush/bluebunch wheatgrass ecological site** is associated with fan terraces and undulating foothills and slopes are generally 2-30 percent. The NRCS site guide description for this ecological site states that the visually dominant vegetation of the site should be bluebunch wheatgrass, western needlegrass (*Achnatherum occidentale*) and mountain big sagebrush. Rangeland Health Site 3 is associated with this ecological site.

This ecological site potential natural plant community for grasses should be bluebunch wheatgrass, western needlegrass and Thurber's needlegrass (*Achnatherum thurberianum*) with lesser amounts of bottlebrush squirreltail, Nevada bluegrass, Idaho fescue, basin wildrye, prairie junegrass (*Koeleria macrantha*) and sedge. Forbs in the potential natural plant community should be arrowleaf balsamroot (*Balsamorhiza sagittata*) and lupine with lesser amounts of tapertip hawksbeard, white hawkweed (*Hieracium albiflorum*), penstemon (*Penstemon spp.*), longleaf phlox (*Phlox longifolia*), biscuitroot (*Lomatium dissectum*), rosy pussytoes (*Antennaria rosea*), fleabane (*Erigeron spp.*), milkvetch, and rockcress (*Arabis spp.*). Shrubs in the potential natural plant community should include mountain big sagebrush with lesser amounts of antelope bitterbrush and rabbitbrush.

The **mountain big sagebrush/Idaho fescue ecological site** is associated with mountain sides on north, east and northwest exposures and slopes range from 20-60 percent. The NRCS site guide description for this ecological site states that the visually dominant vegetation of the site should be Idaho fescue, bluebunch wheatgrass and mountain big sagebrush. Portions of the allotment within this ecological site are at a slightly higher elevation and more precipitation which leads to the presence of more mountain shrubs. The visually dominant vegetation at the higher elevation ecological site should be mountain big sagebrush, mountain snowberry (*Symphoricarpos oreophilus*) and Idaho fescue.

This lower elevation mountain big sagebrush/Idaho fescue ecological site potential natural plant community for grasses should be bluebunch wheatgrass and Idaho fescue with lesser amounts of prairie junegrass, Nevada bluegrass, Thurber's needlegrass, basin wildrye, bottlebrush squirreltail, sedge, Sandberg bluegrass, oniongrass (*Melica bulbosa*) and Colombia needlegrass. Forbs in the potential natural plant community should be arrowleaf balsamroot, lupine, tapertip hawksbeard and geranium with lesser amounts of helianthella, phlox, white stoneseed (*Lithospermum spp.*), aster (*Aster spp.*), buckwheat, Indian paintbrush, penstemon, wild onion (*Allium ascalonicum*), mustard (*Salix spp.*), western yarrow (*Achillea millefolium*) and milkvetch. Shrubs in the potential natural plant community should include mountain big sagebrush with lesser amounts of serviceberry, mountain snowberry, Wood's rose (*Rosa woodsii*), currant, chokecherry, rabbitbrush, mockorange (*Philadelphus microphyllus*), quaking aspen (*Populus tremuloides*) and antelope bitterbrush.

Portions of the allotment in the **mountain big sagebrush/mountain snowberry/Idaho fescue ecological site** are slightly higher in elevation and receive more precipitation which typically increases the amount of mountain shrubs. This site is very similar to the site described above but

the visually dominant vegetation at the higher elevation ecological site should be mountain big sagebrush, deciduous shrubs and Idaho fescue.

The potential natural plant community for grasses should be Idaho fescue and bluebunch wheatgrass and slender wheatgrass (*Elymus trachycaulus*) with lesser amounts of prairie junegrass, Nevada bluegrass, Kentucky bluegrass (*Poa pratensis*) and Thurber's needlegrass. Forbs in the potential natural plant community should include arrowleaf balsamroot, lupine, tapertip hawksbeard, cinquefoil (*Potentilla spp.*), and geranium with lesser amounts of alumroot (*Heuchera spp.*), giant hyssop (*Agastache urticifolia*), Indian paintbrush, agoseris (*Agoseris glauca*), biscuitroot, hawkweed and penstemon. Mountain big sagebrush and mountain snowberry should be present in the potential natural plant community with lesser amounts of rabbitbrush, snowbrush ceanothus (*Ceanothus velutinus*), Wood's rose, chokecherry, and antelope bitterbrush.

Long-Term Rangeland Trend

Trend is the direction of change in ecological status or in resource value rating observed over time. Trend in ecological status is described as "toward" or "away from" the potential natural community or as "not apparent". The BLM uses the nested frequency method for calculating the trend of canopy cover, frequency of occurrence, and composition of canopy cover. The nested frequency method tests for changes in vegetative cover of the species and/or in major ground cover classes (USDI BLM, 1999). A photo plot is typically used along with the nested frequency method as a reliable way of recording soil surface characteristics and the amount of ground surface covered by vegetation and litter.

A photo plot was established in Driveway Gulch on a South Slope Gravelly 12-16" ecological site in 1976 and later incorporated nested frequency in 1985. Long-term trend studies were conducted in 1985, 1988, 1991, and 2002. Ground cover point data was collected in conjunction with this study. The protocol for the collection of ground cover point data changed in 1996, resulting in a change in the cover type categories. Therefore, the 2002 ground cover point data cannot be compared to the data from 1985 through 1991. Since 1991, the overall trend at this site is static. Trend has been calculated using the chi squared method and even though the trend has been technically static, there has been a noticeable improvement in the condition of Driveway Gulch, which has been seen in the trend photos. Driveway Gulch has an intermittent stream in the bottom and according to the photos; the populations of desirable woody species such as aspen have increased and revegetated the gulch area. The original trend data forms can be found in the South East Fork Allotment Studies Files at the BLM Shoshone Field Office. The area of the allotment where this trend site was established is not representative of the South East Fork Allotment as a whole; therefore, another trend site was established in 2010 in the allotment which is called Long-Term Trend Site#2. Data at this new trend site was collected in 2011 and is discussed below. The data at this new trend site will give the BLM a better understanding of what the conditions of the rangelands are in the allotment in the future.

Long-Term Trend Site #1

The most common grass species found on the study site throughout the years have been bluebunch wheatgrass, bottlebrush squirreltail, basin wildrye, elksedge (*Carex geyeri*), oniongrass, Sandberg's bluegrass, and cheatgrass. The most common forb species found include agoseris, aster, buckwheat, bushy blazingstar (*Mentzelia dispersa*), common dandelion (*Taraxacum officinale*), fairyslipper orchid (*Calypso bulbosa*), groundsmoke (*Gayophytum spp.*), fernleaf biscuitroot, fiddleneck (*Amsinckia spp.*), goatsbeard, tapertip hawksbeard, maiden blue-eyed Mary (*Collinsia parviflora*), lupine, machaeranthera (*Machaeranthera spp.*), Microseris (*Microseris troximoides*), Penstemon, poverty sumpweed (*Iva axillaris*), prickly lettuce (*Lactuca serriola*), thistle (*Cirsium spp.*), Slenderleaf Collomia (*Collomia linearis*), tall tumbled mustard (*Sisymbrium astissimum*) and waterleaf phacelia (*Phacelia hydrophylloides*).

The most common shrub species found on the sites are mountain big sagebrush, serviceberry, mountain snowberry and antelope bitterbrush.

Long-Term Trend Site #2

This was a new trend plot and 2011 was the first year it was read which means that this information is the baseline for future readings. The most common grass species found on the study site were bluebunch wheatgrass, prairie junegrass, Nevada bluegrass and Idaho fescue with lesser amounts of basin wildrye, elksedge and cheatgrass. The most common forb species found include lupine, violet (*Viola spp.*), marsh willowherb (*Epilobium palustre*), rockcress, (*Arabis spp.*), maiden blue-eyed Mary, Penstemon, horsebrush (*Tetradymia canescens*), buckwheat (*Eriogonum heracleoides*), silverleaf phacelia (*Phacelia hastata*), Cryptantha (*Cryptantha spp.*) and knotweed (*Polygonum spp.*) with lesser amounts of machaeranthera, common yarrow (*Achillea millefolium*) and common mullein (*Verbascum thapsus*).

The most common shrub species found on the sites are mountain big sagebrush, yellow rabbitbrush (*Chrysothamnus viscidiflorus*), antelope bitterbrush, Wood's Rose (*Rosa woodsii*) and mountain snowberry.

South East Fork Allotment Assessment Data

Mountain Big Sagebrush/ Bluebunch Wheatgrass Ecological Site

Rangeland Health Site 1: located in Driveway Gulch. Cover data indicates that bluebunch wheatgrass, cheatgrass and mountain big sagebrush are the dominant plant species with lesser amounts of Nevada bluegrass, Sandberg bluegrass, goatsbeard, Hood's phlox (*Phlox hoodsii*), willowweed, mountain snowberry and antelope bitterbrush. Many of the desired perennial grasses, forbs and shrubs native to the site are present and the plant species composition is similar to what has been described for the range site. The vegetation species abundance for forbs and shrubs is lower than what would be expected for the ecological site. Cheatgrass is one of the dominant species on this site and the main reason why the shrubs and forbs are present in lesser quantities. The presence of cheatgrass is due to historic livestock grazing and the development of the road and subsequent recreation activities.

Rangeland Health Site 2: located on east side of allotment, adjacent to Cove Creek. Cover data indicates that bluebunch wheatgrass, mountain big sagebrush and cheatgrass are the dominant plant species with lesser amounts of basin wildrye, Nevada bluegrass, Prairie junegrass, Colombia needlegrass, Sandberg bluegrass, penstemon, slenderleaf collomia, rabbitbrush, antelope bitterbrush, mountain snowberry and serviceberry. Many of the desired perennial grasses, forbs and shrubs native to the site are present and the plant species composition is similar to what has been described for the range site. The vegetation species abundance for forbs and shrubs is slightly lower than what would be expected for the ecological site. Cheatgrass is present on this site and the main reason why the forbs are present in lesser quantities. The presence of cheatgrass is due to historic livestock grazing and the development of the road and subsequent recreation activities.

Loamy Mountain Big Sagebrush/Bluebunch Wheatgrass Ecological Site

Rangeland Health Site 3: located on the west side of the allotment. Cover data indicates that bluebunch wheatgrass and mountain big sagebrush are the dominant plant species with lesser amounts of Colombia needlegrass, Idaho fescue, buckwheat, sticky geranium, lupine, tansy mustard, willoweed, western yarrow, mountain agoseris, slenderleaf collomia, littleflower collinsia, groundsmoke, giant hyssop, fiddleneck, penstemon, goatsbeard, elderberry (*Sambucus spp.*), rabbitbrush, mountain snowberry and Douglas-fir. Many of the desired perennial grasses, forbs and shrubs native to the site are present and the plant species composition is very similar to what has been described for the ecological site. Cheatgrass is not present on this site or in any of the surrounding areas on the western portion of the allotment.

Overall, the South East Fork Allotment is meeting Standard 4 (Native Plant Communities) and current livestock grazing is in conformance with Guidelines for Livestock Grazing Management. The vegetation present in the allotment consists of species that were listed on the NRCS site guide descriptions for the South East Fork Allotment and healthy, productive and diverse native plants are being maintained or promoted. Cheatgrass and Diffuse Knapweed are both present in small populations but they are not a dominant plant species in the South East Fork Allotment. The shrub component is present within acceptable limits in the allotment and the understory vegetation has an abundance of the desirable grasses and forbs. The long-term trend data at the first site shows that there is a static trend in rangeland health in the South East Fork Allotment and a second long-term trend site has been established.

BLM Sensitive Species

Bug-leg goldenweed has been identified in neighboring allotments and there is an unconfirmed occurrence within the neighboring Indian Creek Allotment. Bug-leg goldenweed is a perennial yellow composite that occurs in gravelly to heavy clay soils in ephemeral moist herbaceous meadows, swales, and weak drainages in bottomlands or hillsides, saddles dominated by herbaceous vegetation, drier edges of seeps, and occasionally on stony sites. These sites are usually in drier sagebrush communities or on 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 are dominant.

The elevational range of this species is approximately 4,500 to 7,500 feet. Populations occur in both undisturbed and disturbed communities with various levels of competition. Numerous sites have past as well as on-going disturbance, including road shoulders, fence lines, pastures, corrals, and abandoned fields and road rights-of-way. Bug-leg goldenweed blooms in July and August. Associated species include northern mule's-ears (*Wyethia amplexicaulis*), Gairdner's yampah (*Perideridia gairdneri*), camas lily (*Camassia spp.*), checker-mallow (*Sidalcea spp.*), sego lily, western yarrow, aster, cinquefoil, Navarretia (*Navarretia spp.*), tarweed (*Madieae spp.*), Great Basin wildrye, bluebunch wheatgrass, bottlebrush squirreltail, oatgrass, bluegrass, Idaho fescue, mountain big sagebrush, early low (alkali) sagebrush, low sagebrush, and rabbitbrush; many of which are present in the South East Fork Allotment.

Bug-leg goldenweed is endemic to the Camas Prairie, Bennett Hills, and the foothills of the Soldier, Smoky, Boulder, and Pioneer Mountains. Shallow disturbances such as scraping may be tolerated but deep disturbance (excavation for pipelines, cable burial, mining, right-of-way maintenance, trail or road construction, etc.) will kill plants. Other threats include competition with exotic species and sod-forming grasses. This species tolerates moderate levels of livestock grazing.

3.3.4 Fish & Wildlife, including BLM Sensitive Species

Special status animal species that may occur on the South East Fork Allotment during all or a portion of the year are listed in tables 9, 10, 11 and 12. Expected use of habitat within the allotment by the sensitive animal species varies from incidental foraging activities to year-round use.

Threatened and Endangered Animal Species

The US Fish and Wildlife Service (USFWS) lists three Candidate wildlife species that occur within the BLM Shoshone Field Office: greater sage-grouse (*Centrocercus urophasianus*), yellow-billed cuckoo (*Coccyzus americanus*), and wolverine (*Gulo gulo*). Canada lynx (*Lynx canadensis*), a Threatened species, also occurs within the BLM Shoshone Field Office; however, none of the field office is designated as lynx critical habitat. The gray wolf (*Canis lupus*) and bald eagle (*Haliaeetus leucocephalus*) were previously listed on the Federal List of Endangered and Threatened Wildlife but were removed on August 8, 2007 and May 5, 2011, respectively.

Canada Lynx

Canada lynx is listed as a Threatened species under the ESA. The species is found in boreal forests and is closely associated with the snowshoe hare, its primary prey. Alternate prey, including many small mammals and grouse, are also important to lynx diets. In Idaho, lynx primarily occur in high elevation, cold forest habitats that support spruce, subalpine fir, whitebark pine, lodgepole pine, or moist Douglas-fir habitat. Shrub-steppe habitats that occur adjacent to, or are intermixed with, cold forest habitats in Idaho are used to a limited extent by lynx for foraging and dispersal activities. The average home range of Canada lynx is approximately 30 to 60 square miles; however, range sizes often increase during periods of low prey availability.

Although Canada lynx have been documented throughout northern portions of the BLM Shoshone Field Office, none of the field office is designated as lynx critical habitat. The suspected very low, incidental use level of the project area by the species is expected to result in “No Effect” to the Canada lynx, and a discussion of the species will not be carried through the analysis.

Greater Sage-grouse

The USFWS recently completed a status review to list the greater sage-grouse as a Threatened or Endangered species under the ESA. They found that listing the greater sage-grouse is warranted but precluded by higher priority listing actions. This decision lists the greater sage-grouse as a Candidate species under the ESA.

The greater sage-grouse is found primarily in habitats dominated by sagebrush, particularly big sagebrush. Sage-grouse require an extensive mosaic of sagebrush of varying densities and heights, high levels of native grass cover for nesting, and areas rich in high protein forbs and insects during nesting and brood rearing (Idaho Sage-grouse Advisory Committee, 2006). Successful nesting habitat requirements include a sagebrush canopy cover of 15 - 25%, sagebrush heights of 30 - 80 cm, and grass and forb cover of 18 cm (Connelly, Schroeder, Sands, and Braun, 2000, p. 977). Summer brood rearing habitat also includes riparian areas and wet meadows. Sage-grouse depend entirely on sagebrush during the winter for food and cover.

There are no known active or historic sage-grouse leks within the South East Fork Allotment and the closest known lek is approximately four air miles southwest of the allotment. The South East Fork Allotment also has not been designated as preliminary general or preliminary priority habitat for sage-grouse. However, sage-grouse flight survey data from Idaho Department of Fish & Game does show sage-grouse using areas immediately adjacent to the South East Allotment which means that incidental use of benches, canyon bottoms, and riparian areas in the allotment may occur. Overall, the allotment provides marginal habitat conditions for sage-grouse due to the steepness of slope, depth of snow, and relatively low abundance of forbs preferred by sage-grouse.

Yellow-billed Cuckoo

The yellow-billed cuckoo is listed as a Candidate species under the ESA. Yellow-billed cuckoos are low-shrub nesting birds that require at least five acres of riparian habitat for nesting. Dense understory foliage appears to be an important factor in nest site selection, and cottonwood trees are an important foraging habitat (Laymon, 1999). Information regarding cuckoo populations within Idaho indicates this species is rare; there are only 64 recorded observations in the state. Historic observations of the yellow-billed cuckoo within the BLM Shoshone Field Office are concentrated along the Big Wood River, and surveys conducted in 2003 and 2009 documented yellow-billed cuckoos along the Big Wood River and Silver Creek drainages, approximately 30 miles from the South East Fork Allotment. Within the South East Fork Allotment, the East Fork of the Big Wood River contains patches of suitable habitat for yellow-billed cuckoos; however, there are no known occurrences of cuckoos. The suspected very low, incidental use level of the project area by the species is expected to result in “No Effect” to the yellow-billed cuckoo, and a discussion of the species will not be carried through the analysis.

Wolverine

The wolverine is listed as a Candidate species under the ESA. Primary winter habitat is mid-elevation conifer forest; summer habitat is typically subalpine, high-elevation cirques. The wolverine occupies a large home range and may occupy the South East Fork Allotment during any season of the year while searching for prey. Although there are no ICDC records of wolverines in the allotment, sightings have been confirmed within two air miles of the South East Fork Allotment. The suspected very low, incidental use level of the project area by the species is expected to result in “No Effect” to the wolverine, and a discussion of the species will not be carried through the analysis.

BLM Sensitive Animal Species

Mammals

The gray wolf was removed from the List of Endangered and Threatened Wildlife on May 5, 2011. Delisted animal species are managed as sensitive species for five years following delisting to ensure population viability. Gray wolves could occur in the South East Fork Allotment during any season of the year; however, wolves are most likely to occupy the allotment during late fall and winter when elk and mule deer are present.

Pygmy rabbits historically occurred throughout the Snake River Plain in Idaho. Populations are now widely scattered across southern Idaho, likely as a result of reduced and fragmented sagebrush habitat. Suitable habitat is associated with deep, friable soils that support dense stands of tall sagebrush. Such areas do not occur in the South East Fork Allotment, and no pygmy rabbits have been observed in or near the allotment. The proposed action and alternatives are not likely to affect the pygmy rabbit, and a discussion of the species will not be carried through the analysis.

Townsend’s big-eared bat relies on shrub-steppe, coniferous forest, and riparian habitat for foraging activities. These habitat types exist on the South East Fork Allotment, and use of the allotment by Townsend’s big-eared bat would likely occur during the spring, summer, and early fall.

Big Game Species

The South East Fork Allotment provides important year-round habitat for elk and mule deer and has likely increased in recent decades as adjacent, lower elevation areas have undergone anthropogenic development. The importance of the habitat for mule deer and elk on many large blocks of public land has increased as a result. Mule deer and elk use now occurs year-round on the allotment with a greater level of use occurring in the late fall, winter, and early spring. As a result of the changes in habitat use brought by the combined effect of development and the changes in land use identified above, most of the public land in the allotment is currently designated mule deer winter range and is also on the cusp of crucial elk winter range. During the PFC field tour of the East Fork of the Big Wood River, it was noted by the ID Team that big game use this area extensively in the early spring and fall and to a lesser extent along Cove Creek and Driveway Gulch.

The 1981 Sun Valley MFP allocated 42 deer months of forage in the allotment for the summer use period (May 1 to October 30). However, the EIS did not allocate any elk forage for the summer or winter use periods, as elk did not historically utilize the allotment as heavily prior to 1981, when land use changes became more prevalent in the Wood River Valley.

The allotment is located approximately eight air miles from bighorn sheep range. Scattered observations of Rocky Mountain bighorn sheep in the Pioneer Mountains have been documented in the past 20 years; however, the Pioneer population management unit (PMU) does not currently contain a source population of bighorn sheep. It is unclear where the source populations for these sheep are located; they may migrate from either the East Fork Salmon River population or the Lost River population.

IDFG's current objective for the Pioneer PMU of bighorn sheep is to minimize contact between bighorn sheep and domestic sheep. Bighorn sheep are susceptible to respiratory diseases carried by domestic sheep. The effects of respiratory disease complex on populations of bighorn sheep can take several forms, including high rates of all-age mortality (i.e., die-offs); high rates of mortality restricted to lambs, especially during summer; and chronic, low-level, sporadic adult mortality. Some populations recover relatively quickly from disease events, while other populations experience long periods of chronic poor production (Ryder et al., 1992; Ryder et al., 1994; Cassirer & Sinclair, 2007). Pathogens associated with the respiratory disease complex appear to spread among interconnected populations of bighorn sheep, sometimes over a period of years, resulting in morbidity and mortality of numerous individuals and populations over time (Onderka & Wishart, 1984; George et al., 2008).

Amphibians and Reptiles

BLM Sensitive amphibian and reptile species that could occupy the South East Fork Allotment include the northern leopard frog, western toad, and common garter snake. The northern leopard frog is associated with permanent water sources during all life stages. Populations occur in a variety of wetland habitats, including marshes, pond margins, and slow moving sections of streams and rivers. The only perennial water source in the South East Fork Allotment is the East Fork of the Big Wood River, which is a series of beaver dams and fast moving water. The likelihood of the northern leopard frog occurring in or near the allotment is low, and no sightings of the species have occurred. The common garter snake and the western toad are likely to occur near springs and riparian areas in the allotment. These species have relatively small home ranges and likely occupy public land in the allotment throughout the year.

Fisheries

Interior Columbia River redband trout, a subspecies of the rainbow trout, is native to most of Idaho and are found in most rivers and streams below Shoshone Falls (Behnke 1992). Redband trout are found throughout the BLM Shoshone Field Office where suitable habitat exists. Redband trout habitats are diverse, ranging from low elevation desert streams to high elevation mountain streams. Like other species of trout, habitat needs include undercut banks, large woody debris, pool habitats with clean spawning gravels, and dense, overhanging, streamside vegetation.

In Idaho, resident populations of redband trout persist at some level in all major areas of historical distribution. Status reviews in Idaho, Oregon, and Montana report declines in redband trout populations (Thurow et al., 1997). Population declines can be attributed to habitat degradation and fragmentation, and non-native fish introductions into redband trout occupied streams. Redband trout are documented in the East Fork of the Wood River upstream and downstream of the South East Fork allotment. Redband trout likely occur in the East Fork of the Wood River within the allotment as habitat is suitable. Redband trout have also been identified in the Cove Creek drainage upstream of the South East Fork allotment but are not known to occur in Cove Creek within the allotment. Within the South East Fork allotment, Cove Creek is an intermittent stream.

The Wood River sculpin is an Idaho endemic species that historically occurred within streams and rivers in the Big Wood River and Little Wood River watersheds. Current distribution is limited to the Big Wood River watershed upstream of Magic Valley Reservoir and Upper Little Wood River watershed. Wood River sculpin are a benthic (bottom-dwelling) species that inhabits flowing waters ranging in size from small streams to medium-sized rivers. Wood River sculpin are often found occupying the same habitats as redband trout which is likely due to similar habitat requirements of clean, cool water and coarse streambed substrates (gravel and larger) which stream dwelling sculpin typically select for spawning and rearing (Meyer et al., 2008). Wood River sculpin have undergone declines in distribution within the historic range of the species. Water quality issues, habitat loss and degradation, and floodplain encroachment are likely factors contributing to the declines of Wood River sculpin.

Wood River sculpin are documented in the East Fork of the Wood River upstream and downstream of the South East Fork allotment. Wood River sculpin may occur in the East Fork of the Wood River within the allotment as suitable habitat exists. Wood River sculpin have also been identified in the Cove Creek drainage upstream of the South East Fork allotment but are not known to occur in Cove Creek within the allotment. Within the South East Fork allotment, Cove Creek is an intermittent stream.

Migratory Landbirds

Executive Order 13186, signed January 10, 2001, lists several responsibilities of Federal agencies with respect to conservation of migratory birds and their habitats. BLM sensitive migratory landbirds that could occur in the South East Fork Allotment are denoted by an asterisk in tables 9 through 12. Many of these birds are also designated as special status species or are on the Watch List (i.e., Type 5 BLM sensitive species) in the BLM Shoshone Field Office.

The American bald eagle was listed as Endangered in 1978 and downgraded to Threatened status in 1995. On June 28, 2007, the bald eagle was removed from the Endangered Species List. The bald eagle is now protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The bald eagle is a common winter visitor to the BLM Shoshone Field Office, found primarily along the Snake River and its principle tributaries. Bald eagles may make rare, incidental use of public land in the South East Fork Allotment while wintering in the Big Wood River drainage. However, the proposed action and alternatives are not expected to measurably impact the species, and it will not be carried through the analysis.

Other migratory bird species associated with water that could occupy the South East Fork Allotment include red-naped sapsucker, willow flycatcher, Williamson's sapsucker, and calliope hummingbird. Red-naped sapsuckers occupy deciduous and streamside forests, especially those containing aspen, cottonwood, and willow. Willow flycatchers use woody riparian plant communities comprised mostly of native willows during the spring and early fall seasons for nesting, brood-rearing, and foraging habitat. Breeding habitat for Williamson's sapsucker is concentrated in mountainous areas. The species is often found in a variety of forested habitats including ponderosa pine, Douglas-fir, lodgepole pine, subalpine fir, spruce/fir, mixed conifer, and aspen woodland. Calliope hummingbirds migrate to Idaho in mid to late May. The species is typically associated with riparian habitat but will also occupy open conifer forest, aspen, mountain shrub, mountain meadows, and old burns.

Migratory bird species associated with mixed conifer habitats that could occupy the South East Fork Allotment include Cassin's finch, olive-sided flycatcher, Lewis' woodpecker, northern goshawk, flammulated owl, and peregrine falcon. Cassin's finch typically use mid-elevation Ponderosa pine forests but can also be found in Douglas fir, spruce, or fir forests. Olive-sided flycatchers occupy mid- to high-elevation montane and coniferous forests and are often associated with edge habitat or areas with standing dead trees such as wooded shores of streams and beaver ponds. Lewis' woodpecker use dead and decadent Douglas-fir as well as mature aspen for nesting and foraging activities during the spring, summer, and early fall seasons. The northern goshawk nests in stands of Douglas-fir and lodgepole pine and forages in adjacent open habitat. Flammulated owl breeding habitat combines mature pine forests for nesting, scattered thickets of shrubs for roosting, and grassland edge habitat for foraging. Peregrine falcons inhabit a variety of landscapes including mountains, river corridors, reservoirs, and lakes. The species breeds on cliffs, cut banks, and in trees.

Migratory bird species that rely on sagebrush/grassland habitat for a portion of their life cycle activities that could occupy the South East Fork Allotment include prairie falcon, sage sparrow, sage thrasher, Brewer's sparrow, and green-tailed towhee. Prairie falcon nest on cliffs or rock outcrops and forage in nearby grassland and shrub-steppe habitat. The species likely uses the allotment during the spring, summer, and early fall seasons while searching for prey. Sage sparrows use mature big sagebrush and to a lesser extent other mature native shrub species for nesting, song perches, and roosting. Sage sparrows typically prefer sites with high sagebrush cover, large patch size, and low fragmentation. The sage thrasher and Brewer's sparrow are also closely associated with dense stands of sagebrush. The green-tailed towhee is a shrubland specialist that nests in both sage-steppe and mountain shrub habitat. Both habitat types are present in the allotment.

Table 9: Type 1-Threatened (T), Endangered (E), Proposed (P), or Candidate (C) Special Status Animal Species

Common Name	Scientific Name	General Habitat Use
Canada Lynx (T)	<i>Lynx canadensis</i>	Forest
Greater Sage-grouse* (C)	<i>Centrocercus urophasianus</i>	Sagebrush, Riparian
Yellow-billed Cuckoo* (C)	<i>Coccyzus americanus</i>	Riparian
Wolverine (C)	<i>Gulo gulo luscus</i>	Forest, Riparian

Table 10: Type 2-Rangewide/Globally Imperiled Species Special Status Animal Species

Common Name	Scientific Name	General Habitat Use
Gray Wolf	<i>Canis lupus</i>	Forest, Sagebrush, Riparian
Bald Eagle*	<i>Haliaeetus leucocephalus</i>	Forest, Sagebrush, Riparian
Pygmy Rabbit	<i>Brachylagus idahoensis</i>	Sagebrush
Northern Leopard Frog	<i>Rana pipiens</i>	Riparian
Redband Trout	<i>Oncorhynchus mykiss gairdneri</i>	Rivers and Streams
Wood River Sculpin	<i>Cottus leiopomus</i>	Rivers and Streams

Table 11: Type 3-Regional/State Imperiled Species Special Status Animal Species

Common Name	Scientific Name	General Habitat Use
Townsend's Big-eared Bat	<i>Plecotus townsendii</i>	Sagebrush, Grassland, Riparian, Cave
Peregrine Falcon*	<i>Falco peregrinus anatum</i>	Forest, Grassland, Sagebrush, Riparian
Prairie Falcon*	<i>Falco mexicanus</i>	Sagebrush, Grassland
Northern Goshawk*	<i>Accipiter gentilis</i>	Forest, Grassland, Sagebrush, Riparian
Flammulated Owl*	<i>Otus flammeolus</i>	Forest
Calliope Hummingbird*	<i>Stellula calliope</i>	Forest, Riparian
Lewis' Woodpecker*	<i>Melanerpes lewis</i>	Forest, Riparian
Williamson's Sapsucker*	<i>Sphyrapicus thyroideus</i>	Forest, Riparian
Willow Flycatcher*	<i>Empidonx trailii</i>	Forest, Riparian
Olive-sided Flycatcher*	<i>Contopus borealis</i>	Forest
Sage Sparrow*	<i>Amphispiza belli</i>	Sagebrush
Brewer's Sparrow*	<i>Spizella breweri</i>	Sagebrush
Common Garter Snake	<i>Sonora semiannulata</i>	Forest, Riparian
Western Toad	<i>Bufo boreas</i>	Forest, Riparian

Table 12: Type 5-Watch List Avian Species Special Status Animal Species

Common Name	Scientific Name	General Habitat Use
Red-naped Sapsucker*	<i>Sphyrapicus nuchalis</i>	Forest, Riparian
Sage Thrasher*	<i>Oreoscoptes montanus</i>	Sagebrush
Green-tailed Towhee*	<i>Pipilo chlorurus</i>	Sagebrush
Brewer’s Blackbird*	<i>Euphagus cyanocephalus</i>	Sagebrush
Cassin’s Finch*	<i>Carpodacus cassinii</i>	Forest
<p>For Tables 8 through 12:</p> <p><i>Type 1-Federally Threatened, Endangered, Proposed, and Candidate Species</i> -These species are listed by the Fish and Wildlife Service or National Marine Fisheries Service as threatened or endangered, or they are proposed for listing under the Endangered Species Act.</p> <p><i>Type 2- Rangewide/Globally Imperiled Species</i> -These are species designated as FWS candidate or are ranked by the Natural Heritage program network as globally rare to critically imperiled.</p> <p><i>Type 3-Regional/State Imperiled Species</i> -These are species that are in danger of becoming extirpated from Idaho in the foreseeable future if factors contributing to their decline, or habitat degradation or loss, continue.</p> <p><i>Type 4-Peripheral Species (not present)</i></p> <p><i>Type 5-Watch Species (not considered as sensitive species)</i></p> <p>*These species are migratory birds.</p>		

3.3.5 Wetlands & Riparian Areas

The South East Fork Allotment has both the East Fork of the Wood River located in the north central portion of the allotment and Cove Creek which is located on the east side of the allotment in the panhandle. The East Fork of the Wood River is a perennial creek and Cove Creek is intermittent. They were both assessed as a lotic riparian area which is a body of water flowing through a channel such as a river or stream. Riparian areas can be rated at PFC, Functioning at Risk with an upward, downward or static trend or Non-Functioning. PFC is the minimum requirement for achieving Standards 2 & 3. The method for assessing PFC is a qualitative, yet science-based process that considers both abiotic and biotic factors as they relate to physical function. The allotment also contains some intermittent springs located on relatively gentle slopes that support riparian vegetation but they have not been rated since they are not perennial streams with a reliable water source.

East Fork of the Wood River

This perennial stream runs east-west and tends to have higher flows in the spring and fall. The South East Fork Allotment consists of 100% BLM managed lands but the East Fork of the Wood River runs on less than 1 mile of the allotment. The remaining portions of the stream run through private lands. The riparian vegetation on public lands in the South East Fork Allotment is dominated by willows, mountain brome and Nebraska sedge. Kentucky bluegrass is present throughout but is not a major component of the streambanks. The dominant woody species present on the site is Booth willow, Geyer willow and Western river alder. Along the steambanks, there are areas of infestations of Canada thistle. There are also many beaver dams present along the creek and beaver are currently creating new dams and lodges.

The East Fork of the Wood River was rated at PFC in 2010 and is currently meeting Standard 2 and Standard 3 of Idaho Standards for Rangeland Health. This segment of the stream has not been influenced by livestock as much as other areas in the Wood River Valley because the stream is armored with large, woody debris and steep, gravelly slopes as well as a series of beaver dam complexes. The spring of 2010 brought a lot of rain and there was evidence of very high spring runoff during the riparian assessment. There was also sign of fresh cuttings by beaver in areas where dam construction or repair of older dams was occurring. Even though many willows and other shrubs were being cut by beavers, the shrubs still showed signs of high vigor. Portions of the creek channel were exhibiting extreme lateral movement due to abandoned, breached beaver dams but the meanders had re-vegetated with wetland species such as willow and sedge.

Most of the streambanks had developed and defined channels and stabilization of the streambanks was occurring. There were however portions of the stream where channel improvement and streambank stabilization could still occur. Recruitment of willow seedlings and other desirable shrubs along the stream bank was increasing and the streambanks had adequate amounts of sedges and rushes to dissipate energy during high flow events. Populations of undesirable species such as Kentucky bluegrass and Canada thistle will be monitored to ensure that expansion does not occur and that improvement of the riparian area continues.

Cove Creek

This intermittent creek runs north and tends to have higher flows in the spring and fall. The Cove Creek only runs on .5 miles of the BLM lands in the allotment. The remaining portions of the stream run through private lands to the north and U.S. Forest Service Lands to the south. The riparian vegetation on public lands in the South East Fork Allotment is dominated by willows, Nebraska sedge and rush. Kentucky bluegrass is present throughout and is a component of the streambanks. Along the streambanks, there are areas of Canada thistle, diffuse knapweed and Kentucky bluegrass. The dominant woody species present on the site is Coyote willow.

Overall, the Cove Creek has been rated as not meeting, but making significant progress towards meeting Standard 2 and Standard 3 of Idaho Standards for Rangeland Health. Two sites were evaluated because the portions of Cove Creek in the South East Fork are separated by a culvert that was constructed about 5 years ago. The segment north of the culvert has been rated as Functioning at Risk with an upward trend and the segment south of the culvert is at PFC. The stream has shown improvement over the last decade due to changes in livestock use and recreational use. Many areas along the stream have developed defined channels and stabilization of the streambanks is occurring. There are however still portions of the stream where improvement to the channels and stabilization of the streambank has not occurred. No previous studies are known but according to ocular estimates, improvement in the condition of the stream has been occurring since 2000.

Recruitment of willow seedlings and other desirable shrubs along the stream bank is increasing and the streambanks have adequate amounts of sedges and rushes to dissipate energy during high flow events. Populations of undesirable species such as Kentucky bluegrass and Canada thistle will be monitored to ensure that expansion does not occur and that improvement of the riparian area continues.

This Creek also has factors contributing to the failure of Standard 2 and Standard 3 that are outside of the BLM's management control of livestock. Cove Creek is in close proximity to a main road that travels through private, BLM and Forest Service lands. This area receives heavy recreation use in the form of motorcycles, ATVs, and mountain bikes and occurs directly adjacent to and within the riparian area and the stream itself. While the road mostly parallels Cove Creek from the East Fork to Moran Creek, it is located largely at the very edge of the floodplain (at the toe of the slope), and has a relatively small influence on the riparian zone of the creek.

From Moran Creek upstream, however, the road successively and substantially impinges upon the riparian zones (and sometimes the stream channels) of Cove Creek, its tributary Cabin Creek, and an unnamed tributary of Cabin Creek for a total of about 1.3 to 2.0 miles. In addition to the basic displacement and disruption of riparian vegetation and hydrologic function caused by the primary road bed, single and multiple rutted tracks run parallel to the primary road in some locations, impacting even more of the riparian zones and stream channels.

This road is under the control of the Forest Service pursuant to a reservation issued under 44 LD 513 (Vol. 44 of Land Decisions Page 513; January 13, 1916). During the fall of 2005, the Forest Service, in a cooperative effort with the Idaho Transportation Department (ITD), rehabilitated about 1.3 to 2.0 linear miles of riparian habitat by removing the flood-plain road and relocating it to the upland habitat upslope of and roughly parallel to the old road location. The proposed project served as wetland mitigation for an ITD project and was intended to improve watershed conditions, while maintaining and improving road access for the public. Rehabilitation efforts also included the installation of a culvert at Cabin Creek. Over the past 9 years, a detectable improvement has been made in streamside vegetation and streambank stability.

3.3.6 Noxious Weeds & Invasive Plants

On the uplands, populations of diffuse knapweed (*Centaurea diffusa*) and cheatgrass are present in localized areas of the allotment. Canada thistle (*Cirsium arvense*) occurs primarily in the riparian areas on the Forest Service lands located in Driveway Gulch. Diffuse knapweed and Canada thistle are on the Noxious Weed list for the State of Idaho and cheatgrass is considered an invasive species. The BLM is actively controlling the noxious weed infestations throughout the field office using both chemical and biological means. The chemical treatments are occurring along road sides while the biological control agents are used in areas off the main roads.

3.3.7 Recreation & Visitor Services

Recreation activities that occur within the South East Fork Allotment include hiking, hunting, horseback riding, mountain biking, motorcycle and ATV use and driving for pleasure.

Recreational use season is year-round however the highest use occurs in the spring, summer and fall. The majority of visitors reside within the Wood River Valley except during hunting season when hunters come from the Magic and Treasure Valleys. Prior to visiting public lands, most recreationists have a destination or route they intend to follow.

The BLM Shoshone Field Office has had an assistance agreement since 2004 with the Idaho Rangeland Resources Commission (IRRC) to address conflicts between recreationists and livestock operations. The principle purpose of this program provides a consistent message for education and awareness of multiple-use issues. Outreach to the public has and is being done using various forms of media including signs, kiosks, billboards, radio and television ads, pamphlets, website, posters, and booths at social events (i.e. county fairs). Information can also be found at: <http://idrange.org/>.

Outreach regarding how to interact with livestock operations is also being done through the Blaine County Recreation District summer trails website, <http://summertrailink.bcrd.org/>. This website includes information similar to the user ethics found at the IRRC site. It also includes when sheep bands are present and approximately how long they will be in the vicinity of popular high-use trails. This information is only available for the Croy Creek Trail network which is approximately 3 miles west of Hailey, ID. Therefore the sheep band and guard dog locations in the South East Fork Allotment are not known by the public until they encounter them while participating in their recreation activity.

3.3.8 Social & Economic Values

Blaine County is the seventeenth-largest county in the state and covers 2,643 square miles. This county is also where the current permit holders who own the sheep maintain their base ranches. According to the Idaho Department of Labor, the population in this county has increased from 18,081 in 1997 to 21,329 in 2013. This is a 10-year increase of 15.2 percent, making Blaine County one of the fastest growing counties in south central Idaho for the last decade. However, the 2013 population in Blaine County was 21,329 which was a slight decrease of .2 percent from the year 2010, compared to a 2.8 percent increase throughout the state of Idaho over that same time period. The population density is 8.1 people per square mile, and most of the county residents enjoy a largely rural lifestyle. Residents of the Wood River Valley come to the public lands to recreate throughout the week and there is a higher density of users during the later summer through winter for the hunting and skiing seasons. In 2010, the median age in the county was 40.4 years, and close to the median age of 34.6 for the entire state. Almost a quarter of the county residents are under the age of 18 and 14.9 percent of residents are over the age of 65 which is very similar to the entire state (13.8 percent).

Economic profiles

As of June 2014, unemployment in Blaine County was 3.9 percent, compared to 4.7 percent in Idaho and 6.1 percent nationwide in the same year. Incomes are higher in Blaine County than in the rest of Idaho, possibly due to employment primarily in higher-paying sectors like tourism and business. In 2012 dollars, the per capita income for Blaine County was \$33,603, with a median household income of \$60,160; per capita income for the state was \$22,581 and median household income was \$47,015 (U.S. Census Bureau, 2014). Only 8.9 percent of people in Blaine County live below the poverty level, which is a lower rate than Idaho's poverty rate of 15.1 percent. One of the possible reasons for this is that there is a much higher rate of individuals with a Bachelor's degree or higher (44 percent) than compared to the rest of the state (24.7 percent).

Economic Contribution of Livestock Grazing

The federal government manages 67 percent of the total land in Blaine County and of that, the BLM manages 35 percent of all federal land in the county. The other federal agencies which manage these lands include the DOI Bureau of Reclamation, the DOI National Park Service, the DOI National Wildlife Refuge, and the Department of Agriculture Forest Service. The State of Idaho also manages 4 percent of the total land in Blaine County (refer to Table 13). Most of the federal land in the county is managed for commodity production (timber harvest, crop and livestock production, and mining). In 2013, livestock cash receipts in the state of Idaho totaled \$1.7 billion, an increase of 7 percent over the previous year (Univ of Idaho Extension, 2013).

Table 13: Blaine County Land Ownership

Ownership		
Bureau of Land Management	588,861	34.7
Bureau of Reclamation	3,797	0.2
National Park Service	222,431	13.1
National Wildlife Refuge	1,993	0.1
Forest Service	489,068	28.8
State of Idaho	60,190	3.6
Private	330,070	19.5
Total	1,696,410	100

The BLM collects annual grazing fees from the operators based on the number of AUMs they are permitted. An AUM represents the amount of dry forage required to sustain one cow and her calf, one steer, one horse, five sheep, or five goats for one month. At the current rate of \$1.35 per AUM, the South East Fork Allotment can generate \$197.10 per year from active-use AUMs (based on the current number of AUMs authorized in the proposed action and alternative 1). Even though this is a small amount, the South East Fork Allotment is one of many grazing allotments that are used as a route to and from other neighboring grazing allotments in the general vicinity by both permittees. The BLM distributes 50 percent of the grazing revenues to range betterment projects, 37.5 percent remains in the U.S. Treasury, and 12.5 percent is returned to the state (43 USC Chapter 8A, 1934). Range betterment projects consist of water developments, seedings, fences, cattleguards, or any other structures that may be built in order to improve management.

According to the 2011 USDA Census of Agriculture, the most recent year the census was taken, (USDA NASS, 2014) 14,600 sheep and lambs were owned in Blaine County that year and in the state of Idaho, 235,00 sheep and lambs were owned that same year, totaling more than \$27 million. The sheep and lamb industry is strong in Idaho and currently the state is ranked number seven in the nation for value of sales in sheep and lamb (Idaho Agricultural Statistics, 2014).

Both of the permitted grazing operations are based in Blaine County, Idaho thus the income from the sales of those livestock goes to the counties in which the livestock operations are based. Livestock operation owners may still do business in Idaho, especially while the animals are actively grazing on the allotments, by purchasing supplies, equipment, and gasoline for vehicles, as well as visiting local establishments for food and entertainment. Indirect and induced economic effects to the regional economy include supply purchases (such as hay, equipment, etc.) and from the labor income expenditures by ranch employees and by employees of suppliers.

Non-market values of ranching

Most environmental goods and services (e.g., clean air and water, fish and wildlife habitat, recreational and aesthetic values) are not traded in markets, so it is difficult to place a monetary value on the protection or degradation of natural resources that provide these goods and services. In many cases, a method called hedonic pricing is used. The hedonic pricing method is used to estimate economic values for ecosystem or environmental services that directly affect market prices. It can be used to estimate economic benefits or costs associated with environmental quality including air pollution, water pollution, or noise. It can also be used to estimate environmental amenities such as aesthetic views or proximity to recreational sites. Hedonic pricing examines the amount of money that people would be willing to pay when the characteristics of the service change. For example, the value of the ecosystem services that support recreational activities (e.g., clean air and water that supports habitat for fish and wildlife, which in turn provides hunting, fishing, and wildlife watching opportunities) can be estimated by examining average expenditures for travel, equipment, and supplies for these recreational activities in an area.

Healthy rangeland ecosystems can provide multiple goods and services that can increase the economic, social, and cultural well-being of individuals and communities. To the degree that rangeland resources are degraded, an opportunity exists—through restoration of ecosystem health—to obtain these goods and services at a higher and more productive level. People may spend less time and money on recreational activities in areas where the natural resources have become degraded. However, degraded conditions caused by wildfires and livestock grazing-related activities can reduce wildlife habitat, muddy streams and rivers, and diminish scenic values, all of which can lead to less recreation and thus less money spent in the county. The South East Fork Allotment is currently meeting or making progress towards meeting all of the applicable Rangeland Health Standards and it is valued by recreationalists as an important area to spend time. It provides many opportunities for recreation such as ORV use, fishing, hunting, horseback riding, camping, and wildlife-watching.

Other intangible values associated with ecosystems services include social values of natural resource use – the sense of community cohesiveness and belonging that comes from participating in recreational activities, as well as farming and ranching. Degraded conditions, as mentioned above and in the resource impact analysis sections of this EA, lessen the quality of the land and forage available for growing crops or feeding livestock, which can also have economic impacts on the producers of these goods in the counties adjacent to the South East Fork Allotment. Ecosystems services also have value beyond providing for the uses discussed in this EA.

4.0 ENVIRONMENTAL IMPACTS

4.1 Introduction

This chapter presents the potential environmental impacts that may occur if any of the alternatives were implemented in the South East Fork Allotment. This section will mirror the issues identified in the ID Team analysis record checklist that can be found in the South East Fork Standards & Guidelines file and presented in Chapter 1 of this environmental assessment. All known measures have been included in this assessment to limit impacts to other resources and the remaining environmental consequences described below are unavoidable.

4.2 Proposed Action

4.2.1 Livestock Grazing & Idaho Standards for Rangeland Health

Under the proposed action, livestock use in the South East Fork Allotment would reflect what is shown in Table 1. The allowable number of livestock in this allotment would be increased to 2,000 head of sheep in order to more accurately reflect how the allotment has been utilized by livestock over the past 30 years. This use includes active grazing as well as an additional band of sheep that may be trailing through the allotment by the permittee or other livestock operators. The number of livestock on the current permit is a result of the BLM's billing calculation process in which the number of livestock is automatically generated according to the season of use, percent public land in the allotment and active preference AUMs. The number of livestock on the grazing permit under the current situation is the result of a computation, not an actual livestock grazing management decision. This detail would be corrected in the proposed action and would reflect how the South East Fork Allotment grazing permit is authorized.

The number of sheep being proposed reflects one to two bands of sheep actively grazing the allotment or one band actively grazing while the other band would be permitted to trail through to other allotments, such as Indian Creek, as well as to National Forest lands. Allowing the number of livestock to increase will shorten the season of use in the South East Fork Allotment. The current permittee typically uses the allotment in early to mid-June and the start date will be changed to May 15th in order to allow flexibility in spring grazing. This is the date that was originally analyzed and approved in the 1981 Sun Valley Grazing EIS.

Grazing sheep in higher stocking densities has the potential to decrease grazing selectivity for palatable forage and increase uniform grazing throughout the landscape. Historically this allotment has had bands of sheep graze in a pass through method so this proposed change in the number of livestock essentially is a continuation of the current situation. The South East Fork Allotment is currently meeting the Rangeland Health Standard 4 (Native Plant Communities) with these higher numbers of livestock so the potential of this altering the native plant communities in the future is low. Permitting bands of sheep to graze throughout different seasons also has the potential to allow regrowth of vegetation to occur, thus ensuring that use by wintering big game continues. The spring turn out date would change from June 10th to May 15th under this alternative as well. In order for livestock to turn out in May, range readiness criteria would have to be met. This early season of use would only be permitted every other year in order for the allotment to continue meeting Standard 4, Native Plant Communities, of Idaho Standards for Rangeland Health.

The sheep bands will be present during different seasons which will change what type of vegetation they select to graze. What this means under this alternative is that if a larger group of sheep were present in the allotment at different times and during different seasons, they would typically select grasses in the early summer, forbs during the summer and into early fall and shrubs and dormant grasses during the fall. No one type of vegetation would be used repeatedly during the same time of year. Over time, this has the potential to maintain the present plant community composition with desirable, palatable vegetative species which would maintain or improve the long-term trend in rangeland health as well as allow the South East Fork Allotment to continue meeting Standard 4 of Rangeland Health in the future.

The extension to the season of use in the late fall has the potential to allow the vegetation in the South East Fork Allotment to have dormant season use and allow seed set and seedling maturity to increase over time which would allow this allotment to continue to meet Rangeland Health standards in the future. This extension would also allow the permittee more options for trailing in late fall, thus decreasing use in other BLM and Forest Service grazing allotments and neighboring areas of private and State lands that are used more frequently.

All types of livestock grazing have the potential for minor amounts of soil compaction to occur as well as removal of vegetation in the form of grazing. These potential impacts should not deter the allotment from meeting Rangeland Health Standard 1 (Watersheds) in the future though because the allotment is currently meeting this standard under current livestock management. The continued light utilization in the allotment along with the long-term monitoring in this alternative can help ensure that the South East Fork Allotment continues meeting and continues making significant progress towards meeting Rangeland Health Standards in the future.

4.2.2 Soils & Water Quality

No direct measurements have been conducted to determine if a change in soil loss has occurred following the 1981 Sun Valley Grazing EIS but no sign of excessive soil loss has been documented during the field assessment or since. The riparian areas do have soil loss due to lack of vegetation and this will be further discussed in the EA, specifically in Wetlands & Riparian Areas sections of this document. The slopes in the South East Fork Allotment have the potential

to be erodible due to the gravel component but under the current grazing management the slopes are stable and well vegetated throughout. Unacceptable levels of soil erosion due to livestock grazing as a result of the proposed action are not expected because it is a continuation of the current situation.

The amount of vegetation removal is expected to stay the same under the proposed action. Monitoring has shown that livestock utilization typically consists of 30% or less in the South East Fork Allotment. Removal of vegetation reduces the amount of litter and nutrient cycling in the soil. Due to the continued light utilization levels, there is the potential for the amount and distribution of ground cover to increase over time, reducing compaction and erosion, which would increase nutrient cycling of minerals and plant nutrients.

Continued livestock grazing in this allotment and the change in the season of use should not affect soil resources on public lands because the dates are reverting back to the original dates analyzed in the 1981 Sun Valley Grazing EIS. Under both the original dates, and the modified dates, the allotment was able to maintain healthy soils. Regardless of what the dates are for the allotment, the AUMs will not be exceeded which only allows 11 days of livestock grazing per year under this alternative (refer to Table 4). The South East Fork Allotment will also not have turn out prior to 6/1 for consecutive years in order to allow deferred use on native vegetation.

The permittee has requested the season of use to start on May 15th but even with this earlier date being approved, grazing use would not be authorized until the soils are dry and adequate growth on the vegetation has occurred. The change to the season of use does not have the potential to affect whether or not the South East Fork Allotment meets Standard 1 in the future since range readiness guidelines will be enforced. It has been common practice for the South East Fork Allotment to be grazed by sheep bands that were larger than 1,000 sheep. Under the present sheep numbers, the South East Fork Allotment is meeting Standard 1 and there is no need for the grazing permit to limit the sheep to 160 head. The sheep trailing in the allotment does not have the potential to change soil loss or degradation either because this is a continuation of the current situation. The South East Fork Allotment has had impacts by historic sheep trailing but the current authorization has constraints to the permit in the form of terms and conditions associated with the permit and the trailing use is much more limited than it was in the early 1900s.

All types of livestock grazing, including trailing, have the potential for minor amounts of soil compaction to occur as well as removal of vegetation in the form of grazing. These potential impacts should not deter the South East Fork Allotment from meeting Rangeland Health Standard 1 in the future though because the allotment is currently meeting this Standard under these conditions. The light livestock utilization along with the long-term monitoring in this alternative can help ensure that the allotment continues meeting Rangeland Health standards in the future.

Under the present management, the watershed condition in this allotment is adequate for maintaining soil stability and hydrologic cycling. The South East Fork Allotment is currently meeting Standard 7 for Rangeland Health and grazing conforms with guidelines for livestock management. It has also been determined that nutrient, eutrophication and biological indicators are currently meeting the State water quality standard. The watersheds in the allotment are providing 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. The data collected for rangeland health shows that the South East Fork Allotment has adequate litter and standing dead plant material present for protection of the soil as well as for decomposition to replenish soil nutrients relative to site potential.

4.2.3 Vegetation, including BLM Sensitive Species

Under the proposed action, the overstory vegetation would continue to be dominated by mountain big sagebrush and the understory vegetation would continue to be dominated by native perennial grasses and forbs. The populations of perennial grasses and forbs have the potential to maintain or increase their present populations due to continued light utilization by livestock and dormant season use in the fall. Utilization of native grasses, such as bluebunch wheatgrass and Idaho fescue, are able to recover more quickly when grazed lightly or while they are dormant. The South East Fork Allotment currently supports a healthy, productive and diverse native plant community and the native vegetation is being maintained to standards consistent with the NRCS ecological site descriptions.

The South East Fork Allotment is meeting Standard 4 (Native Plant Communities) with the permittee grazing sheep in large numbers, called bands. The change in the livestock numbers under the proposed action does not have the potential to change the dominant native vegetation in the allotment because these are the numbers that typically graze currently. The number of livestock allowed in this allotment would be increased to 2,000 head of sheep in order to reflect what has actually been used recently. Allowing the number of livestock to increase will reduce the number of days within the season of use that grazing will be allowed based on the permitted number of sheep. The higher number of sheep for a shorter period of time, and a shorter duration of grazing has the potential to allow regrowth of vegetation for use in winter by big game.

Sheep are herded to areas that have not been used the previous year; thus increasing the likelihood that plants are grazed in a “pass through” method. Trailing sheep bands through the allotment would also be considered grazing in a pass through method, the only difference is that the trailing sheep would travel through the allotment for one day or less while the actively grazing sheep bands would pass through at a slower rate. Since the sheep are actively herded, it increases the likelihood that the single plants will only be grazed once. Studies on native rangeland in the Intermountain West suggest that grazing bluebunch wheatgrass in spring and again in summer on arid rangelands is an unlikely practice because regrowth of the plant tends to be reduced (Sheley et al., 2009). Re-grazing of the same plants in this allotment has been relatively uncommon under the current management.

Grazing sheep in higher stocking densities has the potential to decrease grazing selectivity for palatable forage and increase uniform grazing throughout the landscape. Historically this allotment has had bands of sheep graze in a pass through method so this proposed change in the number of livestock is actually a continuation of the current situation. The populations of perennial grasses and forbs have the potential to maintain or increase their present populations due to the light livestock utilization which is the historic and current situation. The South East Fork Allotment is currently meeting the vegetation Rangeland Health standard with these higher numbers of livestock so the potential of the selection of the proposed action altering the native plant communities in the future is low.

The minor change in the season of use does not have the potential to affect the allotment's ability to meet Standard 4 of Idaho Rangeland Health in the future since range readiness criteria will be adhered to. Most of the native grasses in the allotment would have more than 4-6 inches of new growth prior to turn out. Livestock would not be permitted to graze if the early season growth on the native vegetation is not adequate or if the soils are still saturated due to snow melt or spring rains. This earlier season of use would also not be permitted for consecutive years in order for the plant community to maintain vigor and production.

Under this alternative, the sheep bands would be present for a limited time during different seasons which would change the type of vegetation they select to graze. What this means is that if a larger group of sheep were present in the allotment during different seasons, they would typically select grasses in the early summer, forbs during the summer and into early fall and shrubs and dormant grasses during the fall. Season long grazing would not occur and would allow the native vegetation to not be continually grazed throughout its reproductive cycle. Over time, this has the potential to maintain the present plant community composition with desirable, palatable vegetative species because the reproductive capability of the different vegetation types would not be compromised. This grazing treatment is likely to maintain or improve the long term trend in rangeland health and may directly affect if the South East Fork Allotment is meeting Standard 4 (Native Plant Communities) of Rangeland Health in the future.

High utilization levels and early season grazing do have the potential to alter the composition of the vegetative community, especially if high use levels occur in several subsequent years. Heavy defoliation reduces root growth, and thus a plant's ability to compete for water and nutrients placing it at considerable disadvantage with neighboring plants. Grazing an actively growing plant above a certain level (about 50%-60% utilization) will immediately curtail root growth because the plant no longer has the leaves to photosynthesize and produce carbohydrates needed to fuel root growth (Hendrickson 2006). The recommended utilization (21%-40%) will maintain, and may even increase the vigor and rate of establishment of grasses and forbs which would improve the habitat values for many wildlife species.

Bug-leg goldenweed, a BLM Sensitive Species has not been found in the South East Fork Allotment but due to the presence of many associated vegetative species the probability of this sensitive plant occurring in the allotment is high. Shallow disturbances such as scraping may be tolerated but deep disturbance (excavation for pipelines, cable burial, mining, right-of-way maintenance, trail or road construction, etc.) could be detrimental to populations. No projects are planned within the South East Fork Allotment boundary at this time. Other threats include competition with exotic species and sod-forming grasses. This species tolerates livestock grazing and the potential of the species decreasing under the proposed action is minimal.

All types of livestock grazing have the potential for minor amounts of soil compaction to occur as well as removal of vegetation in the form of grazing. These potential impacts should not deter the allotment from meeting Rangeland Health in the future though because the light livestock utilization along with the long-term and short-term monitoring in this alternative can help ensure that the allotment continues meeting Rangeland Health in the future.

4.2.4 Fish & Wildlife, including BLM Sensitive Species

Domestic livestock grazing removes a portion of the native vegetation such as forbs and grasses and has the ability to alter the composition of the native plant community. Under the proposed action, impacts to BLM sensitive species could occur. However, the proposed action was created to reflect current management and use levels, which have historically enabled the allotment to meet Standard 8 (Threatened and Endangered Plants and Animals).

Sheep grazing during the early growing season would remove a portion of the native forb and grass component on the allotment. Under this alternative, habitat conditions for sage-grouse and upland game birds may improve due to the livestock being present for less days overall. The sheep would be present for less time which may increase the availability of forb and herbaceous species needed for concealment and forage and by decreasing direct encounters with domestic sheep. Lighter grazing also has the potential to increase the vigor and rate of establishment of native grasses and forbs, which may increase the number and occurrence of insects, a key component in the diet of both upland game birds and Townsend's big-eared bat.

Livestock grazing under the proposed action is not expected to measurably alter gray wolf use of the allotment; however, sheep mortality may result in lethal control of wolves. To date there have not been any documented accounts of lethal control of wolves in the South East Fork Allotment. Wolf attacks on cattle were observed during the spring of 2011 in the Cove and Flat Top Allotments, approximately ten miles southeast of the South East Fork Allotment. The wolf pack, which likely occupied the South East Fork Allotment and surrounding areas, was terminated by IDFG and Wildlife Services on private lands within the Flat Top Allotment. At present, the Little Wood River pack of wolves could occupy the South East Fork Allotment during any season of the year while searching for prey. The pack is known to occur approximately two miles southeast of the allotment.

A reduction in the number of days sheep are present on the allotment may result in a slight improvement in riparian vegetation and stream channel stability, which would improve habitat for northern leopard frog, western toad, and common garter snake. Light utilization and the

ability of herders to move domestic sheep off of riparian areas could also alleviate impacts to wetland areas. It should be noted, however, that the perennial water sources in the South East Fork Allotment are meeting or making significant progress towards meeting Rangeland Health, and there are no known occurrences of livestock trampling or over-utilizing riparian vegetation within the last two decades.

A reduction in sheep use of the riparian areas would also result in less physical damage to aspen and willow, which provide nesting and foraging habitat for numerous migratory bird species, including Lewis' woodpecker, willow flycatcher, and Calliope hummingbird. Although vegetative conditions in riparian areas were determined to be adequate, the proposed action may result in slightly improved nesting and foraging conditions as a result of livestock spending fewer days in stream habitats. Conversely, grazing in upland portions of the allotment during the authorized-use period may decrease herbaceous cover in localized areas, which would result in preferred foraging conditions for sage sparrow and Brewer's sparrow.

Mule deer and elk utilize the South East Fork Allotment primarily during the spring, fall, and winter. Studies have shown that carefully-managed, late-spring grazing by livestock can improve the forage quality of bluebunch wheatgrass and Idaho fescue on big game winter range (Clark et al. 2000). These species would likely exhibit social avoidance of sheep bands, particularly during mule deer fawning and elk calving. However, impacts to fawning and calving from domestic sheep would be minimal since most of the fawning and calving habitat within the allotment is likely to occur along the East Fork of the Big Wood River. This portion of the allotment is not accessible to domestic sheep due to steep terrain, large woody debris and the presence of several active beaver dams. The proposed extension of sheep grazing into mid-November could also cause big game to avoid the allotment during the early fall. However, the reduction in the number of days that sheep are present in the allotment would ultimately reduce direct competition between domestic sheep and big game species.

Livestock trailing through the allotment would not likely affect big game habitat because it is limited to one day per occurrence. Typically, one band of sheep trails through the allotment every other year. This trail takes approximately 2-3 hours, and the sheep typically rest and overnight in the Indian Creek Allotment, south of the South East Fork Allotment. The Pioneer PMU, which is located about 8 air miles from the South East Fork Allotment, does not currently contain a source population of bighorn sheep and IDFG is not managing for a source population of bighorn sheep. Contact with bighorn sheep could occur in the South East Fork Allotment until mid-November while domestic sheep are present. During the rut in November and December bighorn rams increase the frequency and distance of exploratory forays from the source population home range, so the likelihood of encountering domestic sheep is higher compared to the rest of the year (USDA 2010). However, in the event that it becomes known that bighorn sheep did come in contact with domestic sheep, BMP's have been established with the current permittee as well as with the one livestock trailing permittee in order to minimize the likelihood of contact between domestic and bighorn sheep and include: 1) monitoring, 2) deploying radio collars, and 3) euthanizing bighorn sheep.

Fisheries

Under the proposed action, no impacts will occur to redband trout or Wood River sculpin in the East Fork of the Wood River. Livestock access to the East Fork of the Wood River and associated riparian area in the allotment is extremely difficult due to steep timbered terrain and large extent of beaver dam complexes. This area has not been utilized by livestock in recent history. The East Fork of the Wood River within the allotment is currently rated at PFC and is meeting Rangeland Health Standards 2 and 3. Under the proposed action, the East Fork of the Wood River will remain at PFC and continue to meet standards 2 and 3. As livestock no longer access the East Fork of the Wood River within the allotment, no impacts will occur to fish or fish habitat along this stream.

Redband trout and Wood River sculpin have not been documented in Cove Creek within the South East Fork allotment, but are documented upstream within the Cove Creek drainage and downstream in the East Fork of the Wood River. As Cove Creek is an intermittent stream within the allotment, it does not provide habitat for resident fish. Redband trout may be present in Cove Creek seasonally when flows are adequate for fish to move upstream from the East Fork of the Wood River or downstream within the Cove Creek drainage. Sculpin species are not known to move long distances and are not likely to occur in Cove Creek even when the stream is flowing. Under the proposed action, impacts could occur to redband trout and Wood River sculpin. Livestock would cross Cove Creek and watering would also occur. Direct impacts could occur to redband trout by trampling from livestock, but are unlikely. Indirect impacts to redband trout and Wood River sculpin could occur from the effects of watering and crossing the stream on fish habitat. Sediment could be introduced into the stream in localized areas and affect downstream habitat. Bank stability could be reduced in localized areas, and localized impacts to woody plants could also occur. Large quantities of sediment introduced into Cove Creek and transported downstream into the East Fork of the Wood River could impair water quality in the future but the rates at which is it occurring now is insignificant. Cove Creek is currently not meeting standards 2 and 3, but is making significant progress towards achieving these standards under the current grazing management strategy. The southern portion of Cove Creek is rated at PFC and the northern portion is rated FAR-upward trend. The current recovery occurring on Cove Creek indicates that any impacts to redband trout or Wood River sculpin from the proposed action would be minimal and short-term.

4.2.5 Wetlands & Riparian Areas

The South East Fork Allotment is currently making significant progress towards meeting the Rangeland Health Standard 2 (Riparian Areas & Wetlands) and Standard 3 (Stream Channel & Floodplain); current livestock grazing is not a factor in the failure of these standards. Cove Creek is experiencing an upward trend in overall riparian health and the East Fork of the Big Wood River is at Proper Functioning Condition. The proposed action is expected to continue improvement to Cove Creek as a result of the limited authorized use. Under the proposed action, no bedding of sheep will be permitted within 500 feet of the Cove Creek drainage in order for the creek to continue making progress in meeting Idaho Standards for Rangeland Health.

By having the sheep bands graze the South East Fork Allotment over a shorter period of time, the riparian areas have the ability to recover from grazing more quickly. Sheep, unlike cattle, are actively herded within the allotment; thus decreasing the likelihood of livestock loitering in the riparian zone. What livestock operators do to encourage livestock to not loiter in the riparian zone while they are in a pasture is more important than either season of use or length of time in the pasture per se (USDI 1997).

High utilization levels and early season grazing do have the potential to alter the composition of the vegetative communities in riparian areas, especially if high use levels occur in several subsequent years. Subsequent years of high utilization levels have the potential to reduce vigor and reproductive capability of vegetation, thus leading to an increase in aggressive, undesirable species. These high use levels have occurred in this allotment previously when cattle were permitted to graze in the allotment and while unlimited bands of sheep trailed through the Cove Creek drainage but since both these activities ceased, these high use levels have not occurred. A continuation of light utilization has the potential to promote healthy populations of desirable vegetation needed to sustain wetland characteristics. By allowing short duration livestock use periods, the riparian vegetation could receive deferred rest instead of a summer through fall grazing treatment as would happen under the no action alternative.

Under the proposed action, the potential to improve the riparian vegetation over time in and around Cove Creek is high because these are the livestock numbers that graze in the allotment currently and the riparian areas have been continually improving. The proposed extension to the season of use could potentially improve the riparian area as a whole because most plants have completed their growth cycle and grazing will not adversely affect plant development; soils are drier which reduces the probability of compaction and bank trampling; and generally there is less impact on wildlife habitat (USDI BLM, 1997). Another advantage to dormant season use is that for many herbaceous species seed set has already occurred, and defoliation will have less impact than during earlier development stages. The potential for an increase in browsing of woody vegetation by domestic sheep during the late fall is possible under this alternative since sheep dietary needs change during that time.

The trailing of sheep by other livestock operators does have the potential to alter riparian vegetation or prohibit the ability of this resource to recover in the future. Livestock trailing has decreased from five to eight bands a year to one band per year to be used as an alternate route through the South East Fork Allotment. With the continued trailing of one band of sheep per year, Cove Creek is expected to continue to make significant progress towards meeting the Rangeland Health Standard 2 and Standard 3.

Under the proposed action, the overstory vegetation would continue to be dominated by willows and the understory vegetation would continue to be dominated by sedges, rushes and riparian obligate forbs. Kentucky bluegrass will still be present in the riparian areas under this alternative but should not expand or increase due to light livestock utilization. Over the last decade, livestock have attained light utilization limits and under this alternative, there is a high probability that this will sustain healthy, viable populations of vegetation in and around the spring. The physical changes to Cove Creek will continue or increase under this alternative as

well. These physical changes include reduced erosion, increased sediment filtering, improved water retention and improved channelization. The populations of perennial sedges and rushes have the potential and the spring will be more able to reach its potential. Potential is defined as the highest ecological status a riparian-wetland area can attain given no political, social, or economical constraint, and is often referred to as the potential natural community or PNC (USDI TR 1737-15 1998). It should be noted that a riparian area does not have to have achieved its potential in order to be functioning properly.

4.2.6 Noxious Weeds & Invasive Plants

During the field assessment, populations of cheatgrass and diffuse knapweed were identified within the allotment boundary. These two invasive species are prevalent in the Wood River Valley. The populations of invasive, non-native species have the potential to decrease under this alternative with the continued light utilization levels because having a healthy native vegetation community reduces the ability of noxious weeds to spread. The effects of light grazing on deteriorated range [can] take several forms [such as] increased cover, retarded water runoff, increased water infiltration into the soil, reduced soil erosion, improved vigor of palatable plants, increased herbage growth, and improved variety and quality of the forage (Klipple, 1961). Many attempts have been made in the past to eradicate them through chemical and biological means with some success. This area has been and will continue to be closely monitored for potential expansion into neighboring areas.

4.2.7 Recreation and Visitor Services

Most if not all issues associated with livestock operations and recreationists are specifically related to the guard dogs livestock operators use as a non-lethal means to protect sheep from predators. There have been no formal complaints to the BLM Shoshone Field Office regarding these conflicts however it is a constant topic of discussion during informal discussions with recreationists. The BLM Shoshone Field Office has been working with the Idaho Rangeland Resource Commission and the Blaine County Recreation District to address these issues through information and education.

Impacts to recreationists from the presence of guard dogs include displacement and visitor health and safety. Most recreationists have a destination or a specific route they intend to follow. If they are aware that sheep bands and guard dogs may be present they may select another location to recreate however the majority of sheep band guard dog locations are not known by the public until they encounter them while participating in their recreation activity. When the interactions occur the recreationist tend to turn around and choose another location or route to recreate or pass through or by the band of sheep. This can be a visitor health and safety issue depending on several related factors. Those factors include the type of activity or transportation mode the recreationist is using, knowledge and experience of how to interact with sheep band guard dogs, temperament of individual guard dogs and if the sheep herder is present and has the ability to control the guard dogs. Most negative interactions seem to be associated with mountain bikes however all forms of non-motorized recreation activities and motorized activities where the individual is not enclosed in a vehicle seem to be more susceptible to negative interactions.

These interactions include being intimidated, chased and/or bitten by a dog. These negative interactions have various degrees of impact on the visitor's experience. The presence of sheep bands during the fall may also displace deer and elk, especially with the extension to the grazing season under this alternative. During the hunting season, an indirect effect may occur from displacement of big game which could decrease a hunter's ability to be successful in this particular area.

4.2.8 Social & Economic Values

Under the proposed action, there are not any anticipated social or economic impacts to the permittee in the South East Fork Allotment. This allotment is currently meeting or making significant progress towards meeting all of the applicable Rangeland Health Standards and no adverse changes to the grazing permit or trailing permit are needed at this time. The only changes to the grazing permit that are being analyzed under this alternative have been requested by the active preference permittee and should benefit the livestock operation overall. These changes to the terms and conditions of the grazing permit under this alternative have been analyzed are not expected to cause the South East Fork Allotment to not meet Idaho Standards for Rangeland Health in the future.

4.3 Alternative 1

4.3.1 Livestock Grazing & Idaho Standards for Rangeland Health

Under alternative 1, livestock use in the South East Fork Allotment would reflect what is shown in Table 3 and livestock numbers would be the same as under the proposed action and trailing of sheep by other livestock operators would be permitted; however, the season of use would decrease by 17 days in the spring and summer and 15 days in the fall. The allowable number of livestock in this allotment would be increased to 2,000 head of sheep in order to reflect actual use in the past. Allowing the number of livestock to increase will reduce the number of days within the season of use that grazing will be allowed based on the permitted number of sheep.

The number of sheep being proposed reflects one to two bands of sheep actively grazing the allotment. The higher number of sheep for a shorter period of time is happening currently and this shorter duration of grazing has the potential to allow regrowth of vegetation for use in winter by big game. This alternative differs from the proposed action by not including the change in the season of use.

Under this alternative, the grazing season would end 15 days sooner. Sheep movement routes would remain the same for early November for the current permittee and they would not have the ability to utilize the South East Fork Allotment in conjunction with their other neighboring allotments during that time. The impacts from livestock grazing and trailing will be the same as the proposed action with the exception of the grazing season ending sooner. Refer to Section 4.2.1 for an analysis of the impacts from livestock grazing and trailing.

4.3.2 Soils & Water Quality

The impacts to the South East Fork Allotment from livestock grazing and trailing are very similar the impacts described in Section 4.2.2 under the proposed action. All types of livestock grazing, including trailing, have the potential for minor amounts of soil compaction to occur as well as removal of vegetation in the form of grazing. These potential impacts should not deter the South East Fork Allotment from meeting Rangeland Health Standard 1 in the future though because the allotment is currently meeting this Standard.

Continued livestock grazing in this allotment should not affect soil resources on public lands because under the current grazing season dates the allotment was able to maintain healthy soils. Regardless of what the dates are for the allotment, the AUMs will not be exceeded which only allows 11 days of livestock grazing per year under this alternative (refer to Table 4). Under this alternative, the South East Fork Allotment will also not have turn out prior to 6/1 for consecutive years in order to allow deferred use on native vegetation.

4.3.3 Vegetation, including BLM Sensitive Species

The impacts to the South East Fork Allotment from livestock grazing and trailing are very similar the impacts described in Section 4.2.2 under the proposed action. The only difference between this alternative and the proposed action is that this alternative will not include a change in the season of use from current management. The change in livestock numbers will be incorporated in this alternative as well as in the proposed action (refer to Table 4). Under alternative 1, the overstory vegetation would continue to be dominated by mountain big sagebrush and the understory vegetation would continue to be dominated by native perennial grasses and forbs. The populations of perennial grasses and forbs have the potential to maintain or increase their present populations due to the light utilization that has occurred over the last decade. The South East Fork Allotment currently supports a healthy, productive and diverse native plant community and the native vegetation is being maintained to standards consistent with the NRCS ecological site descriptions.

The change in the livestock numbers under alternative 1 is not expected to change the dominant native vegetation in the South East Fork Allotment because these are the numbers that typically graze in the allotment currently. The South East Fork Allotment is meeting Standard 4 (Native Plant Communities) with the permittee grazing sheep in large numbers, called bands. By having the sheep bands graze the South East Fork Allotment over a shorter period of time, the native vegetation has the ability to recover from grazing more quickly. The sheep are herded to areas that have not been used previously; thus increasing the likelihood that plants are grazed in a “pass through” method. Studies on native rangeland in the Intermountain West suggest that grazing bluebunch wheatgrass in spring and again in summer on arid rangelands are an unlikely practice because regrowth of the plant tends to be reduced (Sheley 2009).

Bugleg goldenweed, a BLM Sensitive Species has not been found in the South East Fork Allotment but due to the presence of many associated vegetative species the probability of this sensitive plant occurring in the allotment is high. This species tolerates livestock grazing and the potential of the species decreasing under alternative 1 is minimal since this is basically a continuation of the current situation.

4.3.4 Fish & Wildlife, including BLM Sensitive Species

Wildlife

Under alternative 1, impacts to wildlife resulting from livestock grazing would not differ too much from the proposed action. Not extending the grazing period into the spring may improve habitat conditions for nesting and brood-rearing sage-grouse by increasing the vigor and rate of establishment of native grasses and forbs. Not allowing livestock to use the allotment during the spring and fall may encourage use of habitats in the allotment by elk and mule deer during these seasons. Encounters between bighorn sheep and domestic sheep would not likely occur because the season of use for domestic sheep grazing would end prior to the rut. However, domestic sheep would continue to trail through the allotment and could come into contact with bighorn sheep during this activity.

Fisheries

Under alternative 1, impacts to fish would be similar to the proposed action.

4.3.5 Wetlands & Riparian Areas

Under alternative 1, impacts to wetlands and riparian areas resulting from livestock grazing would not too differ much from the proposed action. Under alternative 1, the overstory vegetation would continue to be dominated by willows and the understory vegetation would continue to be dominated by sedges, rushes and riparian obligate forbs. The presence of Kentucky bluegrass will still be present along the creeks under this alternative but should not expand or increase since the utilization by livestock has typically been light. The physical changes to the riparian area will continue or increase under this alternative as well. These physical changes include reduced erosion, increased sediment filtering, improved water retention and improved channelization.

The populations of perennial sedges and rushes have the potential to increase over time if the utilization levels continue to remain light, thus allowing Cove Creek to be able to reach its potential. The East Fork of the Big Wood River has already reached potential and has been rated at PFC. Potential is defined as the highest ecological status a riparian-wetland area can attain given no political, social, or economical constraint, and is often referred to as the potential natural community or PNC (USDI BLM, 1998). It should be noted that riparian areas do not have to have achieved its potential in order to be functioning properly.

4.3.6 Noxious Weeds and Invasive Plants

Impacts for this alternative are the same as the proposed action alternative.

4.3.7 Recreation and Visitor Services

Impacts for this alternative are the same as the proposed action alternative except for the season of use ending 15 days sooner in the fall. The current season of use ends on October 26th and under this alternative there may be a positive benefit to the hunters that choose to hunt big game within the South East Fork Allotment boundary. The big game animals may be less likely to exhibit social displacement in early November since the sheep would need to be gone in early October.

4.3.8 Social & Economic Values

Under alternative 1, there are not any anticipated social or economic impacts to the permittees in the South East Fork Allotment. This allotment is currently meeting or making progress towards meeting all of the applicable Rangeland Health Standards and no adverse changes to the grazing permit or trailing permit are needed at this time. The only change to the grazing permit that is being analyzed under this alternative have been requested by the active preference permittee and should both benefit the livestock operation as well as negligible impacts to the resources present in the South East Fork Allotment.

4.4. Alternative 2 - No Action

4.4.1 Livestock Grazing & Idaho Standards for Rangeland Health

The no action alternative will reflect what is shown in Table 5. This permit will not incorporate changes to the season of use. Also, a smaller number of livestock would be present in the allotment from June until October frequenting areas more than once which would further increase compaction of the soils. All types of livestock grazing have the potential for minor amounts of soil compaction to occur as well as removal of vegetation in the form of grazing. This would not change with the selection of the no action alternative.

The actual use recently has been light to moderate (20% to 39% utilization) but under the no action alternative, utilization levels are expected to be reached more quickly because the sheep, even in fewer numbers, will be utilizing the riparian areas and uplands for a longer period of time, thus re-grazing individual plants throughout the season and potentially inhibiting regrowth of vegetation. High utilization levels and grazing during critical growth of vegetation are likely to alter the composition of the vegetative community, especially if high use levels occur in several subsequent years.

Under this alternative, even if high use levels do not occur, the composition of the vegetative community may still be altered because the sheep could have the opportunity to be more selective of palatable forage across the landscape. Sheep will readily consume grass-dominated diets when grasses are succulent or when other forages are unavailable. Sheep tend to consume more forbs as forb availability increases. Plant parts that are tender, succulent, and readily visible are usually selected over those that are course, dry and obscure (Burritt & Frost, 2006). What this means under this alternative is that if a smaller group of sheep were present in the allotment from June 10th to October 26th every year, they would continually and systematically select vegetation at its peak time when the plants are trying to grow and produce seed. Over time, the composition of the plant community has the potential to become populated with undesirable, less palatable vegetative species which could lead to a “downward trend” in rangeland health. This could directly affect if the South East Fork Allotment meets Standard 4 (Native Plant Communities) of Rangeland Health in the future.

Under this alternative, livestock trailing will be permitted in the South East Fork Allotment by other livestock operators as described in the BLM Shoshone Field Office Livestock Trailing EA. New trailing applicants also have the potential to be processed according to the current regulations.

4.4.2 Soils & Water Quality

Under the no action alternative, the presence of 160 head of sheep present in the South East Fork Allotment for 138 days has the potential for unacceptable levels of soil erosion to occur. The sheep would be present in the allotment for a much longer time than under any other alternative. The probability of the sheep continually traveling over the same areas, creating more livestock trails, and increasing erosion, soil loss or compaction is high. Livestock are habitual animals and tend to use the same path repeatedly during the course of grazing.

Historically, the South East Fork Allotment has been grazed by sheep bands that were larger than 1,000 sheep. Under the historical livestock numbers, the allotment is meeting Standard 1 (Watershed) and there is no need for the grazing permit to limit the number of sheep to 160 head for a longer period of time. Under the present management, which includes a large band of sheep for less time, the watershed condition in this allotment is adequate for maintaining soil stability and hydrologic cycling. The temporary presence of the sheep currently allows for the soils to recuperate after short duration grazing events but this may not be the case under this alternative.

Livestock have a tendency to habitually use some portions of the allotment more than other portions, thus trampling and grazing those well-traveled areas. Under this alternative, the season long presence of livestock may inhibit the vegetation's ability to produce adequate litter and standing dead plant material needed to protect the soil because there will be areas of the allotment that will receive more livestock use than others. This could lead to the soil being compacted in those well-traveled areas as well as decreasing the ability for litter to accumulate. A reduction in litter decomposition could occur which would affect the quantity of the soil nutrients relative to site potential. The South East Fork Allotment may not meet Standard 1 in the future and the likelihood of the watershed in the allotment not being able to 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 is high.

4.4.3 Vegetation, including BLM Sensitive Species

The rangelands where the South East Fork Allotment is located have been utilized by livestock for decades due to the rolling topography and accessibility to livestock. The allotment is typically used either in the spring or fall or both since this route is one of the quicker and easier trailing routes to get from BLM lands to US Forest Service Lands. This does not have the potential to change in the future. With the historical livestock use throughout this allotment, the native plant communities are intact and the appropriate plant species are present and adequate according to the NRCS site guide description for the allotment.

Under the no action alternative, the sheep numbers would stay at 160 head, with the result being that sheep would likely be in the allotment from June 10th through October 26th. There would be no changes to the terms and conditions of the permit and the grazing permit would resemble what is shown in Table 5. The vegetation may not continue to be dominated by mountain big sagebrush, native perennial grasses and forbs in the future because the plants have a higher probability of becoming stressed from continual, season long grazing. The livestock would most likely graze the same plants repeatedly throughout the grazing season and minimal regrowth of native vegetation would occur. The potential increase in soil compaction under the no action alternative could prohibit root growth and plant vigor of native plants in the future and could lead to the South East Fork Allotment not meeting Rangeland Health in the future.

Bug-leg goldenweed, a BLM Sensitive Species has not been found in the South East Fork Allotment but due to the presence of many associated vegetative species the probability of this sensitive plant occurring in the allotment is high. If season long grazing were incorporated in the South East Fork Allotment, as described in this alternative, the potential of exotic species and sod-forming grassing to expand are high. Exotic Species and sod-forming grasses are both threats to the survival of bug-leg goldenweed. This species tolerates livestock grazing but the potential of the species maintaining viable populations under the no action alternative is slight since the native vegetation on the site would be stressed from continual grazing.

4.4.4 Fish & Wildlife, including BLM Sensitive Species

Wildlife

Under the no action alternative, no changes are proposed in number of sheep or season of use. The allotment would be authorized for grazing during the entire growing season, which may adversely affect BLM sensitive and other wildlife species. Under the no action alternative, sheep would be present in the allotment for 138 days as opposed to 11 days, as under the proposed action and alternative 1.

Domestic sheep occupying the allotment during the summer and fall could deter wildlife species from occupying the allotment. In addition, habitat suitability for wildlife breeding, nesting, and foraging activities would likely decrease due to a loss of herbaceous cover.

For example, sheep grazing typically begins by early June, which coincides with sage-grouse nesting and brood-rearing activities. Grazing by domestic sheep during this time may negatively impact sage-grouse habitat by reducing the ground cover of herbaceous and forb species preferred by sage-grouse. A decrease in herbaceous cover would reduce concealment and security cover for sage-grouse chicks and may increase predation of nests. A reduction in the height and diversity of vegetation would also reduce insect numbers, a key component in the diet of sage-grouse chicks.

Grazing in the allotment throughout the entire authorized-use period may improve foraging conditions for sage sparrow and Brewer's sparrow nesting, brood-rearing, and foraging activities. However, grazing by domestic sheep could degrade riparian nesting habitat for Lewis' woodpecker and willow flycatcher species.

Although less sheep would occur on the allotment at once, their constant presence would likely deter mule deer and elk from utilizing the area for forage, shelter, and fawning/calving. The full use of forage preference would reduce the amount of concealment, thermal cover, and forage available to wintering elk and mule deer. Encounters between bighorn sheep and domestic sheep may be less likely to occur because the season of use for domestic sheep grazing would end prior to the rut. However, domestic sheep would continue to trail through the allotment and could come into contact with bighorn sheep during this activity.

Fisheries

The no action alternative will have the greatest impact on riparian health, and directly, fisheries as opposed to the proposed action and alternative 1. Both the proposed action and alternative 1 have sheep present for shorter periods of time limiting conflicts with fisheries and decreasing the likelihood of streambank shearing, vegetation trampling and excess sediment in the streams. All of these actions could decrease water quality and temperature, thereby decreasing habitat for fisheries on Cove Creek and the East Fork of the Big Wood River.

4.4.5 Wetlands & Riparian Areas

Under the no action alternative, the grazing permit would resemble what is shown in Table 5. The sheep numbers would stay at 160 head and would stay in the allotment season long from June 10th through October 26th. If the BLM chose this alternative and began enforcing 160 head of sheep, the livestock would have to utilize the riparian areas repeatedly throughout the grazing season which could inhibit regrowth of the riparian vegetation.

During the PFC field tour of the East Fork of the Big Wood River, it was noted by the ID Team that big game use this area extensively in the early spring and fall and to a lesser extent along Cove Creek and Driveway Gulch. Under this alternative, the sheep, mule deer and elk would all be present and competing for the same riparian areas and water source which has the potential for heavier utilization and more trampling of plants to occur. The no action alternative will have the greatest impact on riparian health as opposed to the proposed action and alternative 1. Both the proposed action and alternative 1 have sheep present for shorter periods of time limiting conflicts with big game over the same watering sites.

4.4.6 Noxious Weeds & Invasive Plants

There are populations of cheatgrass, Canada thistle and diffuse knapweed in the allotment boundary. These known populations of undesirable plants may increase under the no action alternative because the native plants may be stressed from repeated grazing. Encroachment of noxious weeds will continue to occur under the no action alternative and may expand more rapidly than under the proposed action or alternative 1.

4.4.7 Recreation & Visitor Services

The allotment would be authorized for grazing during the entire growing season, which may adversely affect recreational opportunities in the South East Fork Allotment. Domestic sheep occupying the allotment during the summer and fall could deter recreational users from choosing to use the allotment.

If the BLM chose this alternative and began enforcing 160 head of sheep, the livestock would have to utilize the riparian areas repeatedly throughout the grazing season which could inhibit regrowth of the riparian vegetation. This could in turn lead to people to choose to go to other areas that are more esthetically pleasing to view.

4.4.8 Social & Economic Values

Under the no action alternative, there possibly could be some social or economic impacts to the active preference permittee in the South East Fork Allotment. This alternative would only allow up to 160 sheep to graze in the allotment and the time of the grazing activity would be extended to 138 Days. Having a smaller band of sheep for a much longer period of time would be detrimental to the permittee financially because he would have to hire a sheep herder for this single allotment, instead of hiring a sheep herder for a general area in which he would move through various grazing allotments in which they have active preference. It would also require the permittee to use his guard dogs, herding dogs and work horse for the whole season which would be cost prohibitive for such a small group of animals.

As stated previously throughout the impacts analysis section for this alternative, grazing a small band of sheep for a longer period of time would not benefit the many resources in the South East Fork Allotment. This could lead to the allotment not meeting Rangeland Health Standards in the future. Overall, the South East Fork Allotment may not be able to provide an atmosphere of opportunity for recreation such as ORV use, fishing, hunting, horseback riding, camping, and wildlife-watching in the future and people may spend less time and money on recreational activities in the South East Fork Allotment where the natural resources have become degraded. Degraded conditions caused by livestock grazing-related activities can reduce wildlife habitat, increase sediment load in streams and rivers, and diminish scenic values, all of which can lead to less recreation and thus less money spent in the county.

4.5 Alternative 3 – No Grazing

4.5.1 Livestock Grazing & Idaho Standards for Rangeland Health

Under the no grazing alternative, livestock use in the South East Fork Allotment would not occur for a term of ten years. All 146 active AUMs would be placed into non-use status and the permittee would not be allowed to actively graze the allotment during the term of the permit. Since the South East Fork Allotment is an important trail route for the current permittee as well as other livestock operators, trailing livestock through the allotment would still be allowed and permitted. Trailing use has the potential to increase under this alternative due to the fact that the current livestock permittee, Lava Lake Land & Livestock, would still need to trail through this allotment in order to access other grazing allotments on their livestock grazing permit.

Lava Lake Land & Livestock, as well as the trailing permittee, Flat Top Grazing Association, are permitted to graze in over a dozen neighboring allotments and in order to get from one location to another, trailing through the South East Fork Allotment would be unavoidable. Therefore, under this alternative, trailing use for one day would be authorized and permitted for as many as 2 bands of sheep per year (one band for Lava Lake Land & Livestock and another band for Flat

Top Grazing Association). This trailing of livestock through the allotment differs from active grazing because each time a sheep operator trails through the South East Fork Allotment the band will be required to move a minimum of five miles per day.

The allotment is currently meeting or making progress towards meeting all Rangeland Health standards with active livestock grazing and trailing in the South East Fork Allotment. Not permitting Lava Lake Land & Livestock to graze the South East Fork Allotment has the potential to change utilization patterns of livestock grazing on other allotments that this operator is permitted in. Overall, Lava Lake Land & Livestock typically grazes their allotments lightly because they have the flexibility to be able to have many options on where they graze. If this allotment were no longer able to be grazed, the changes in livestock grazing in other allotments may impact the health of other resources such as soils, vegetation, wildlife and riparian areas. Over time, this change could affect if these neighboring allotments are able to meeting Standards of Rangeland Health in the future. If livestock grazing was not permitted in the allotment, the South East Fork Allotment would continue to meet Rangeland Health standards in the future. This situation would be no different from the proposed action or alternative 1 being analyzed in this EA. Idaho Standards for Rangeland Health would again be read in the allotment during the next grazing permit renewal process.

4.5.2 Soils & Water Quality

No direct measurements have been conducted to determine if a change in soil loss has occurred following the 1981 Sun Valley Grazing EIS but no sign of excessive soil loss was documented during the field assessment. The slopes in the South East Fork Allotment have the potential to be erodible due to the gravel component but under the current grazing management the slopes are stable and well vegetated throughout. There is no active erosion occurring now in the allotment, and under no grazing, the rate of erosion is not expected to change.

The amount of vegetation removal would decrease under the no grazing alternative. Removal of vegetation reduces the amount of litter and nutrient cycling in the soil. There is the potential for the amount and distribution of ground cover, including litter to increase, reducing compaction, and erosion which would increase nutrient cycling of minerals and plant nutrients more so than under any other alternative in this EA.

The current watershed condition in this allotment is adequate for maintaining soil stability and hydrologic cycling. The cessation of livestock grazing in the allotment has the potential to slightly decrease soil loss, compaction, and degradation, but under the present management the South East Fork Allotment is meeting Standard 1 with the presence of livestock grazing. Watersheds in the allotment are providing the proper infiltration, retention, and release of water appropriate to soil type, vegetation, climate, and landform and provide for proper nutrient cycling, hydrologic cycling and energy flow.

The allotment has adequate litter and standing dead plant material present for protection of the soil as well as for decomposition to replenish soil nutrients relative to site potential. If active livestock grazing was not permitted in the South East Fork Allotment, the allotment would continue to meet the Standard 1 of Rangeland Health in the future.

4.5.3 Vegetation, including BLM Sensitive Species

Under the no grazing alternative, the overstory vegetation would continue to be dominated by mountain big sagebrush and the understory vegetation would continue to be dominated by native perennial grasses and forbs. The populations of perennial grasses and forbs have the potential to maintain or increase their present populations if all livestock grazing was removed from the allotment for a term of 10 years.

There are many studies that have been conducted over the years looking at what the impacts are with grazing livestock as opposed to not grazing livestock in relation to rangeland health. Early studies of the effects of protection from grazing, such as that by Costello and Turner (1941), showed substantial differences between grazed and protected areas.

Release from the rather heavy grazing during the previous 50 or more years [approximately 1890 to 1940 during Costello's study] often resulted in rapid vegetation changes in the exclosures. Newly established exclosures [in the past 20 or so years] often show small or no differences between grazed and ungrazed areas, especially in arid and semi-arid rangeland communities. In the last 50 years [approximately 1950 to 2000 for Laycock's study], reduced grazing intensities and better management have improved or stabilized vegetation conditions outside as well as inside the exclosures, resulting in little differences between grazed and ungrazed areas (Laycock, 1994).

In summation, these studies have found that heavy grazing caused range deterioration while light grazing promoted stability or improvement to the range. Moderate livestock grazing was typically the most preferred, from a livestock production standpoint, but the results of moderate livestock grazing from the various studies was not consistent in either improving or harming rangelands. These studies were done in many different plant communities and weather conditions and with different kinds of livestock. All showed that light grazing was not a catalyst in causing changes to watershed conditions and vegetation conditions (Box & Malechek, 1987).

The South East Fork Allotment is an example of an area that had heavy livestock use from the late 1800s through the early 1900s but has since shifted to light use in the last 20 years. Comparing the allotment to other lands that have had excessive livestock use continually would not be an accurate depiction of what would happen if livestock were removed in this situation. More specific to Idaho rangelands, one study found no improvement over a 45-year period in three exclosures dominated by big sagebrush in southwestern Idaho (Sanders & Voth, 1983). Some studies have shown that the removal of livestock grazing may result in an increase in total cover or production of vegetation but these increases in production do not have a significant effect on species composition or overall range condition on plant communities that have maintained a healthy, diverse plant community with the presence of livestock grazing.

There are many concepts of stable states and thresholds of range condition and in most models all possible states of vegetation can be arrayed on a single near-linear continuum from heavily grazed or early-successional communities in poor range condition to ungrazed, climax communities in excellent condition. The Multiple Stable State model, which corresponds with NRCS ecological site descriptions, assumes that more than one stable state can exist and that

plant succession does not move along a linear line. A Great Basin study stated that major ecological changes could shift the condition of a site to a new condition; however, the changes caused by protection from grazing did not move the [plant] communities to a different vegetation condition or stage (Laycock, 1991).

Past studies have shown that to remove heavy grazing from a site will provide a large increase in vegetation production and possibly improvement for the short term following the removal of grazing. However, in the long term following the removal of heavy grazing from an area, there is little to no measurable difference in the ecological condition of a site that is being lightly grazed and one that has had grazing completely removed. This supports the theory that although a major disturbance can cause a site to shift to a new ecological condition, simply removing that disturbance does not ensure that the previous condition will be regained. Generally, outside influences such as restoration are required to return a degraded site to anything resembling the desired condition. It should be noted that there are not any degraded ecological sites in the South East Fork Allotment. The allotment currently supports a healthy, productive and diverse native plant community and the native vegetation is being maintained to standards consistent with the NRCS ecological site descriptions.

Livestock grazing by sheep has the potential to decrease grazing selectivity for palatable forage and increase uniform grazing throughout the landscape. The populations of perennial grasses and forbs have the potential to maintain or increase their present populations due to the cessation of livestock grazing. South East Fork Allotment is currently meeting the Rangeland Health standard for native plant communities with livestock grazing so the potential of the no grazing alternative to drastically improve the native plant communities in the future is low. If livestock grazing was not permitted in the South East Fork Allotment, the allotment would continue to meet Rangeland Health standards in the future. This situation would be no different from the proposed action or alternative 1.

Under the no grazing alternative, the cessation of livestock grazing for a ten-year term could potentially increase the likelihood of wildfire in the South East Fork Allotment. Livestock consume vegetation, so grazing in large pastures and allotments typically reduces the extent and severity of wildfire. In addition, livestock tend to graze some areas more intensely than others creating patchy vegetation that reduces the continuity of fuel loads and the fires that might burn those fuels (Taylor, 2006). Overall, without fuel reduction occurring, in the form of livestock grazing, the fine fuels have the potential to build and increase the likelihood of the fires ability to travel faster through the South East Fork Allotment. This buildup of fine fuels can lead to more erratic, unpredictable fire behavior which could make the wildfires more difficult to control.

Bug-leg goldenweed, a BLM Sensitive Species, may occur in the South East Fork Allotment. Shallow disturbances such as scraping may be tolerated but deep disturbance (excavation for pipelines, cable burial, mining, right-of-way maintenance, trail or road construction, etc.) could be detrimental to populations. Under the no grazing alternative, impacts to populations of this sensitive species would be less than any other alternative.

4.5.4 Fish & Wildlife, including BLM Sensitive Species

Wildlife

The no grazing alternative would likely increase forage and cover availability to wildlife such as sage-grouse. Although the South East Fork Allotment is not considered sage-grouse habitat, sage-grouse have been observed in neighboring allotments, likely due to a high percent ground cover of sagebrush and abundance of preferred forbs. Under the no grazing alternative, habitats required by sage-grouse during winter may improve due to increases in sagebrush growth (Anderson and Holte, 1981). In addition, the no grazing alternative may improve habitat conditions for nesting and brood-rearing sage-grouse by increasing the availability of forb and herbaceous species preferred by grouse.

The no grazing alternative may also improve riparian habitats and stream channel stability, which would increase suitable habitat for northern leopard frog, western toad, common garter snake, and numerous migratory bird species. It should be noted, however, that the perennial water sources in the South East Fork Allotment are meeting or making significant progress towards meeting Rangeland Health, and there are no known occurrences of livestock trampling or over-utilizing riparian vegetation within the last two decades.

The no grazing alternative may improve nesting, brood rearing, and foraging habitat for migratory landbirds. Most migratory landbird species that occupy shrub steppe habitats, such as those found in the South East Fork Allotment, are thought to respond negatively to heavy, season-long grazing (Bock et al., 1992). This study also found that migratory bird species respond positively or show no change in response to grazing by livestock. Heavy utilization and season-long grazing do not occur in the South East Fork Allotment.

Under the no grazing alternative, potential conflict between domestic sheep and wolves would be restricted to trailing activities. Similarly, contact between domestic and bighorn sheep would be restricted to livestock trailing, reducing the potential for disease to spread from domestic to bighorn sheep.

The no grazing alternative would eliminate competition between livestock and populations of mule deer and elk that use the allotment. However, trailing of livestock would still occur under this alternative so some competition between livestock and big game may occur during that day that livestock are present in the allotment boundary. A lack of grazing pressure may increase the proportion of woody to herbaceous vegetation on the allotment, effectively decreasing the quality of forage for big game species.

Fisheries

The no grazing alternative would eliminate any potential impacts to redband trout, Wood River sculpin or their habitats that may occur from livestock grazing in Cove Creek within the South East Fork allotment. Any improvement in fish habitat under the no grazing alternative would likely not be measureable. The no grazing alternative will not result in a measurable increase in suitable habitat for any life stage of redband trout or Wood River sculpin as the limited factor is the seasonal drying of Cove Creek.

4.5.5 Wetlands & Riparian Areas

The selection of the no grazing alternative has the potential to allow Cove Creek to continue to improve and have the ability to meet Standard 2 and Standard 3 of Rangeland Health standards in the future. The East Fork of the Big Wood River has been rated at PFC and should remain at PFC under this alternative. High utilization levels have not occurred in this allotment by livestock grazing over the past 20 years but under the no grazing alternative, the recruitment of healthy populations of desirable vegetation needed to sustain wetland characteristics will continue.

Under the no grazing alternative, the overstory vegetation would continue to be dominated by willows and the understory vegetation would continue to be dominated by sedges, rushes and riparian obligate forbs. If livestock grazing was not permitted, the South East Fork Allotment would continue to meet or make progress towards meeting the riparian standards of Rangeland Health in the future. This situation will be no different from the proposed action and alternative 1 analyzed in this EA.

The populations of perennial sedges and rushes have the potential to increase over time under the no grazing alternative but Cove Creek will reach its potential more quickly than under any other alternative proposed. Potential is defined as the highest ecological status a riparian-wetland area can attain given no political, social, or economical constraint, and is often referred to as the potential natural community or PNC (USDI BLM, 1998). It should be noted that a riparian area does not have to have achieved its potential in order to be functioning properly.

Kentucky bluegrass, diffuse knapweed and Canada thistle will still be present in the allotment under this alternative but should not expand or increase because the more desirable native plants are currently able to maintain their populations and keep the undesirable plants in check.

4.5.6 Noxious Weeds & Invasive Plants

Under the no grazing alternative, no livestock grazing would occur for a period of ten years, however, livestock trailing would still occur under this alternative. Some studies have shown that there is no correlation between exclusion of livestock and decreasing populations of weedy vegetation. One study in particular looked at vegetation change after 13 years of livestock grazing exclusion on sagebrush communities in west central Utah. This timeframe would be very similar to this alternative which would exclude livestock for a term of ten years. "The results of the study showed that the total herbaceous standing crop did not increase following 13 years of rest from livestock grazing... The standing crop of many perennial grasses decreased over the 13 year rest. In contrast, cheatgrass apparently increased during the rest period (West et al., 1984)." Overall, this study showed that livestock exclusion will not necessarily result in rapid improvement of the grass component of sites dominated by brush and trees.

Noxious weeds and invasive plants are spread through many other means other than livestock grazing. Vehicle use, recreation, livestock trailing, construction and development and wind would still occur in and around the South East Fork Allotment and the spread of these undesirable plants would continue to occur through these mechanisms.

4.5.7 Recreation & Visitor Services

The no grazing alternative eliminates livestock operations within the South East Fork Allotment thus eliminating any potential conflict between recreationists and livestock operations and guard dogs.

4.5.8 Social & Economic Values

This alternative would cancel all authorized active AUMs on the allotment for a period of 10 years. By not being allowed to graze this one allotment, the possibility of that the permittee would have a substantial socioeconomic impact would be low. If the permittee were to lose other grazing allotments in the area as well due to the selection of this alternative, the socioeconomic impact on the current permit holder, the people they employ, the businesses where the operator purchases supplies, and the communities that are supported by livestock operation activities could be substantial. The permittee would have to relocate their livestock to other federal grazing allotments, privately owned lands or state lands where they hold leases; thereby increasing impacts to the resources on those lands. The permittee also likely purchase supplies from stores closer to the new grazing locations, so income from taxes and sales in these communities would drop, and the income from the livestock sales would go to Blaine County where the base ranches are located. In the case of closing the South East Fork Allotment to grazing for a period of ten years, the current permittee may not have to go so far as to sell their livestock, and/or close the ranch completely since the this allotment accounts for a small portion of the grazing allotments they are authorized to use.

Ranchers have a wide range of options available to them in terms of how they respond to changes in the permitted number of AUMs on their range allotments. Depending on the length of their allowed grazing season and the specific change in permitted AUMs, a rancher might choose to increase or decrease herd size, change grazing months, retain or sell animals at their headquarters, lease new ground or cancel one or more leases on private rangeland, switch to irrigated pasture, adjust feed lot contracts, completely change operation types, and so on. Given the number of uncertain variables and the range of possibilities, it is not feasible to anticipate how individual ranches will react to changes in their specific grazing permits. Also unknown are any and all associated business decisions made in response to prevailing markets, federal and state agricultural policies, and personal values.

BLM acknowledges that as a result of any changes in permitted AUMs, there are likely to be multiplier effects within the economy that serves the associated ranching community. Because it is not possible to quantify the specific monetary impacts on individual ranches, it is also not possible to accurately estimate the resulting multiplier effects. It is possible, however, to state qualitatively, for example, that a reduction in AUMs would result in a corresponding reduction in regional economic activity if ranches choose to reduce livestock numbers and then in turn reduce their spending within the regional economy. The converse is also true.

The no grazing alternative calls for a 100 percent reduction in AUMs on the South East Fork Allotment for a term of ten years. In some cases, as described below, some operators could incur additional costs from alternative forage options due to changes in livestock numbers or management practices. These costs could include:

- Different AUM fees: Private land AUM fees in 2013 were approximately \$15.50/AUM in Idaho, plus transportation costs (IDL 2014). AUM fees on state-owned land in 2012 are \$5.25/AUM in Idaho. The 10-year (2002-2011) average market value of an AUM in Idaho is \$12.67/AUM, which is an estimate based on survey indications of monthly lease rates for private, non-irrigated grazing land.
- Feeding hay on the ranch instead of grazing on pastures: The operators would need 156 lbs. dry forage/month for each ewe/lamb pair if the band of sheep were moved back to the ranch instead of to the South East Fork Allotment. The 10-year (2003-2012) average price for alfalfa hay was \$138/ton in Idaho. This means that the operator would spend up to \$12/month (\$144/year) on dry forage for each ewe/lamb pair.

There may be other costs associated with changes in livestock numbers or management practices that could affect the operator's bottom line and the community as a whole. It is possible that the operator might find that such a large percentage of the band would need to be moved or sold that operating the ranch would no longer be economically feasible. Any cuts in AUMs would lead to increased expenses for grazing and/or feed that could be detrimental to the viability of the ranch. This could lead to losses in jobs, income to the community, and tax revenue for the county and state. Additionally, ranching is so intimately connected to the overall culture in the areas in and around Blaine County that the closing of a ranch would lead to a substantial loss of community cohesion. The closing of a ranch in the Wood River Valley could be viewed by community members as an adverse effect on the social conditions of the local community.

However, not all socioeconomic impacts could be negative. Land on the allotments could be more available for recreational opportunities, which could bring more money to the stores, restaurants, and hotels that provide goods and services for people from the Wood River Valley who come to hunt, fish, camp and watch wildlife throughout the area. Most residents, as well as those visiting from other counties, purchase their goods outside of Blaine County. Thus, although some recreation fees could be collected, the influx of recreation to the county would not add much to the revenue from sales or taxes.

4.6 Cumulative Impacts Analysis:

Cumulative impacts, as defined in 40 CFR 1508.7 (2010), are the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The geographic scope of the proposed grazing permit renewals will be limited to 1,909 acres which includes the federal lands within the South East Fork Allotment. There are not any private or State lands within the allotment boundary. The South East Fork Allotment borders privately owned lands to the north, U.S. Forest Service lands to the east and the BLM-administered Indian Creek Allotment to the south.

The bounds for cumulative impacts to soils, vegetation including BLM Sensitive Species; wetland & riparian areas, Rangeland Health Standards; and, livestock grazing are not only limited to the 1,909 acres within the South East Fork Allotment but also to the 8,790 acres associated with the Cove Allotment managed by Sawtooth National Forest. The bounds for cumulative impacts to noxious weeds, wildlife; including threatened, endangered and BLM sensitive species is much larger and encompasses the private, state and federal lands east of Highway 75 and north of Highway 20 because noxious weeds are able to spread throughout the area as well as wildlife's ability to move through these areas many times throughout the year in order to acquire all of their dietary needs.

4.6.1 Past and Present Actions

This area was first managed by the General Land Office (GLO) in coordination with the Grazing Service and described as arid, broken, mountainous, or grazing in character. Many settlers 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-serve basis. "The first Europeans found a continent with vast rangeland, ranges that had evolved through eons of grazing by animals similar to their domestic animals. Yet within a few decades they found that managing the balance of grazing animals and vegetation was radically different in the new-found West than in the swards, meadows, and pastures of their homelands" (Box & Malechek, 1987).

All public lands had unregulated grazing which led to severe soil erosion and depletion of native vegetation in many areas and the problem went mostly unresolved until the implementation of the Taylor Grazing Act of 1934. The Taylor Grazing Act sought to stop injury to the public grazing lands [excluding Alaska] by preventing overgrazing and soil deterioration; to provide for their orderly use, improvement, and development; [and] to stabilize the livestock industry dependent upon the public range through lease of the public domain to stockraisers (USDI BLM, 1988). The act also stated that these public lands adjacent to the land owners or homesteaders had preference in attaining issuance of a lease for a term of 10 years which is still the timeframe used today.

The Grazing Service dealt mainly with grazing policy while the GLO managed settlement, land sale, land exchange and mineral rights but there was some redundancy between the two agencies. Due to the considerable costs of World War II, Department of the Interior (DOI) officials sought a way to combine the two agencies. In 1946, the DOI formed the Bureau of Land Management and grazing on public lands was then formalized and regulated. The BLM manages its federal lands by dividing areas into grazing allotments which can be managed as a unit.

As stated previously in Section 3.2, General Settings, the South East Fork Allotment is located in Blaine County; approximately 7 miles north and 3 miles east of Hailey, Idaho. It is surrounded mostly by other federal lands and private lands. Very rarely is livestock found in this allotment from outside areas and livestock trespass has not been an issue in the past. The South East Fork Allotment has not had any documented wildfires occur since the 1950s but in the past wildfires did occur without being documented.

The combined effects of residential and business development, expansion of the improved and unimproved road network, the conversion of sagebrush to agricultural fields, wildfires, weed infestations and various forms of new and more extensive recreational uses of the lands in the Wood River Valley have all resulted in a change in big game use patterns in the general area of the allotment over time.

There have not been any wildlife habitat improvements implemented on BLM managed lands but the U.S. Forest Service has made some improvements to a neighboring road in the Cove Creek drainage. Some improvements to the road were implemented on the National Forest lands in order to decrease traffic by vehicles through the stream crossing. New culverts were installed as well as the construction of new portions of the road in order to raise it above the riparian areas to reduce the number of stream crossing. This was completed about 6 years ago.

Adjacent to the South East Fork Allotment in the Indian Creek Allotment a recent disposal of public land to Blaine County under the Recreation and Public Purposes Act was finalized in 2010. Included in that sale were 243 public acres in Ohio Gulch for Blaine County to expand the Ohio Gulch transfer station as well as provide areas for recreational use. The Ohio Gulch transfer station provides basic waste management activities and is permitted to accept only non-hazardous waste according to Idaho Department of Environmental Quality requirements. The expansion was needed in order to increase the land available for construction and demolition debris disposal; which would also allow for an increased area for compaction and temporary storage of other solid waste waiting to be transferred to a regional landfill. There has also been an expansion of the area used for sorting recyclable material. The Ohio Gulch transfer station expansion has extended the life expectancy of the landfill to 30-40 years instead of reaching its full capacity in less than 2 years.

In all likelihood, it is expected that the expansion of residential and business development will continue on private land in the Wood River Valley and thus increase the importance of maintaining and providing a healthy rangeland resource for livestock and wildlife species as well as for recreational opportunities. Out of the five grazing allotments that surround the South East Fork Allotment, four of them (Lake Creek, Courier, Hyndman and Indian Creek) have had Idaho Standards of Rangeland Health completed. It has been determined that those allotments are currently meeting all applicable Rangeland Health Standards and providing suitable habitat to wildlife in the area. The remaining allotment, Elkhorn, has not had Rangeland Health completed to date but even so, the general area surrounding the South East Fork Allotment has been able to support the increased use by displaced wildlife on BLM administered lands.

Many of the parcels of land in the Wood River Valley have populations of spotted knapweed, diffuse knapweed and Canada thistle and it is possible the weeds were spread through many means such as vehicles, recreation, livestock use, construction and development and wind. In spite of this, there are not a remarkable number of noxious weeds and invasive plants present in the South East Fork Allotment. Most of the undesirable plants in the allotment are present along roadsides or where the land has been disturbed. While noxious weeds and invasive plants are present in the allotment, they are not a large component of the vegetative structure. Many attempts have been made in the past to eradicate them through chemical and biological means

with limited success. However, the South East Fork Allotment and numerous other neighboring grazing allotments are meeting all applicable Standards for Rangeland Health. The native plant communities within the South East Fork Allotment, as well as in the areas surrounding the allotment, are productive and are providing wildlife habitat for the many species that live in the Wood River Valley.

4.6.2 Reasonably Foreseeable Action Scenario (RFAS)

Livestock grazing and livestock trailing may be affected by RMP amendments that reflect new conservation measures for greater sage-grouse. The proposed action and alternative 1 implement many of these new conservation measures currently. BLM is currently implementing the interim sage-grouse guidance in the BLM Shoshone Field Office, as directed by State and national offices (Instruction Memorandum No. 2012-043). However, the South East Fork Allotment does not contain any preliminary priority or general sage-grouse habitat so any additional changes to the grazing permit as a result of the new conservation measures would be unlikely.

No changes to the grazing management in South East Fork Allotment are anticipated in the future since the allotment is meeting or making progress towards meeting all applicable Rangeland Health standards and is in conformance with guidelines for livestock grazing management. The proposed extension to the season of use, as discussed in the proposed action, has the potential to decrease trailing through neighboring grazing allotments.

Under the no grazing alternative, by not permitting Lava Lake Land & Livestock to graze the South East Fork Allotment, the potential of increasing grazing use on other allotments that this permittee has is high. In the future, livestock utilization may increase in neighboring allotments, thereby changing the impacts of livestock grazing activities in those other allotments. Currently, Lava Lake Land & Livestock LLC under-utilizes their permitted use on many of their grazing permits, private and State land holdings. The no grazing alternative may lead them to fully utilize their other grazing lands, including their private and State land holdings. Most of their private and State lands are within PPH habitat and crucial winter range for mule deer and elk. This increased use in other areas could alter wildlife use patterns in the Wood River Valley, native plant populations in those areas and cause an increase in vegetation removal which could lead to more soil erosion and noxious weeds and invasive species.

The BLM Shoshone Field Office is currently working with Blaine County to develop a North Highway Travel Plan and future recreational trails and roads may be either closed, moved, improved or developed. The South East Fork Allotment may be affected by the travel plan but it is unknown as of yet what may be proposed in this allotment. The North Highway 20 Travel Management Plan (TMP) will address how travel is managed within these portions of the BLM Shoshone Field Office. Land use plan decisions to be made include if the public lands will be open to cross-country motorized vehicle travel, limited to designated roads and trails or closed to motorized vehicles. Individual route designations may also be considered. Therefore it will influence how recreationists and permitted users travel through public lands. The TMPs may also influence how the public utilizes the areas so social settings and encounters in the South East Fork Allotment may change based on the outcome of the TMP.

Cumulative impacts to socio economics may occur as well. The no grazing alternative would cancel all authorized active AUMs on the allotment for a period of 10 years. By not being allowed to graze this one allotment, the possibility of that the permittee would have a substantial socioeconomic impact would be low. If the permittee were to loose other grazing allotments in the area as well due to the selection of this alternative, the socioeconomic impact on the current permit holder, the people they employ, the businesses where the operator purchases supplies, and the communities that are supported by livestock operation activities could be substantial. The people previously employed by the permittee would have to look for new jobs if the ranch closed; the agricultural sector in the county is large enough that they may not have much trouble finding similar work elsewhere, but they may have to relocate or commute long distances, which could be costly. Many of their workers are not U.S. citizens and are here on temporary work visas from other countries such as Peru. If this permittee did not hire these workers, they may not be able to work in the U.S. The greatest loss to the local communities as a result of ranch closures would be the loss of social cohesion. As noted above, researchers have found that ranchers have more social networks throughout the community, and closing a ranch can lead to a disruption in these networks.

When considered with past, present, and reasonably foreseeable future actions, there are no known incremental effects of the proposed action or alternative 1. There may be cumulative effects to the soils, vegetation, wildlife habitat and riparian health as a result of the continued light utilization by livestock in the South East Fork Allotment, but these should be positive in nature. There may also be cumulative effects that are positive in nature to the soils, vegetation, wildlife habitat and riparian health as a result of the no grazing alternative, but the effects to the livestock permittee would be negative in nature due to the hardship of not being able to use the South East Fork Allotment for a term of ten years. Alternative 2 may have incremental negative impacts to soils, vegetation, wildlife habitat and riparian health due to the season long grazing that is implied in the terms and conditions.

4.6.3 Cumulative Impacts Summary:

No significant individual or cumulative impacts are anticipated in the South East Fork Allotment as a result of the proposed action which would include an extension to the season of use and change in permitted livestock numbers. No significant individual or cumulative impacts are anticipated in the South East Fork Allotment as a result of alternative 1 which would include a change in permitted livestock numbers. No significant individual or cumulative impacts are anticipated in the South East Fork Allotment as a result of alternative 3 which would cease active livestock grazing for a term of ten years but allow trailing of livestock through the allotment to continue. There are, however, anticipated individual or cumulative impacts as a result of alternative 2, the no action alternative, due to the impacts that may occur to vegetation, soils and water quality, fish and wildlife species, noxious weeds, recreation and visitor services and social and economic values due to season long grazing in the South East Fork Allotment.

5.0 CONSULTATION AND COORDINATION:

5.1 Introduction:

The issue identification section of Chapter 1 identifies those issues analyzed in detail in Chapter 4. The interdisciplinary review provides the rationale for issues that were considered but not analyzed further. This review is located in the allotment Standards & Guidelines folder. 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:

TABLE 14: LIST OF ALL PERSONS, AGENCIES AND ORGANIZATIONS CONSULTED FOR PURPOSES OF THIS EA

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
Lava Lake Land & Livestock LLC	Permittee	Comments received from the allotment assessment and scoping package
Flat Top Grazing Association	Trailing Permittee	No comments received
Audubon Society, Prairie Falcon Chapter	Interested Public	Was not an Interested Public at the time of scoping.
Blaine County Commissioners	Interested Public	No comments received
Committee for the High Desert	Interested Public	No comments received
ICL Public Lands Office	Interested Public	No comments received
Idaho Chapter of Wild Sheep Foundation	Interested Public	Was not an Interested Public at the time of scoping.
U.S. Forest Service, Ketchum Ranger District	Government Agency	Comments received from the allotment assessment and scoping package
Idaho State Dept. of Agriculture	Government Agency	No comments received
Idaho State Dept. of Environmental Quality	Government Agency	Comments received from the allotment assessment
Idaho Department of Fish & Game	Government Agency	Comments received from the allotment assessment
Shoshone-Bannock Tribes	Tribal Government	No comments received
The Wilderness Society	Interested Public	No comments received
Western Watersheds Project	Interested Public	No comments received
David Skinner	Interested Public	No comments received
Mel Quale	Interested Public	No comments received
Dennis Crane	Interested Public	No comments received
Paul McClain	Interested Public	No comments received

5.3 Summary of Public Participation:

During preparation of the EA, a Rangeland Health Field Assessment for the South East Fork Allotment was completed in 2000 and sent to permittees and interested publics on June 4, 2002. Public comments were received for the South East Fork Allotment in regards to the Rangeland Health Assessment from Idaho Department of Environmental Quality on June 17, 2002 and Idaho Department of Fish & Game (F&G) on June 26, 2002. The comments from DEQ contained helpful information pertaining to Cove Creek, a 303(d) listed stream. The comments from IDFG dealt mainly with big game winter range and setting appropriate utilization limits for upland and riparian vegetation. F&G also had some concerns about Standard 4 (Native Plant Communities) and the issues raised have been discussed in the environmental assessment.

Along with the Rangeland Health Field Assessment, the public was notified of the upcoming livestock grazing permit renewal in the South East Fork Allotment through a scoping package that was sent to permittees and interested publics on September 29, 2010. Two comments were received from this scoping package; one from the US Forest Service, Ketchum Ranger District on October 14, 2010 one from Lava Lake Land & Livestock LLC on October 15, 2010. The comments from the Forest Service agreed with a lot of the information provided in the scoping package but concern was raised as to if the allotment had been over-allocated AUMs and whether or not this may have implications on rangeland health in the future. The comment letter from Lava Lake Land & Livestock LLC requested further clarification in a couple of areas as well as requested a change in the season of use. Lava Lake Land & Livestock also wanted the BLM to carefully identify and ensure that a distinction was made between livestock and recreational impacts because the area receives extensive motorized recreational use which in many places occurs along stream channels and riparian areas.

5.4 List of Preparers

TABLE 15: List of BLM –Shoshone Field Office Reviewers

Name	Title
Joanna Tjaden	Rangeland Management Specialist
Tara Andersen	Wildlife Biologist
Darek Elverud	Fisheries Biologist
Danelle Nance	Natural Resource Specialist
Lisa Cresswell	NEPA Coordinator, Archeologist
Tara Hagen	Realty Specialist
John Kurtz	Outdoor Recreation Planner
David Freiberg	Outdoor Recreation Planner

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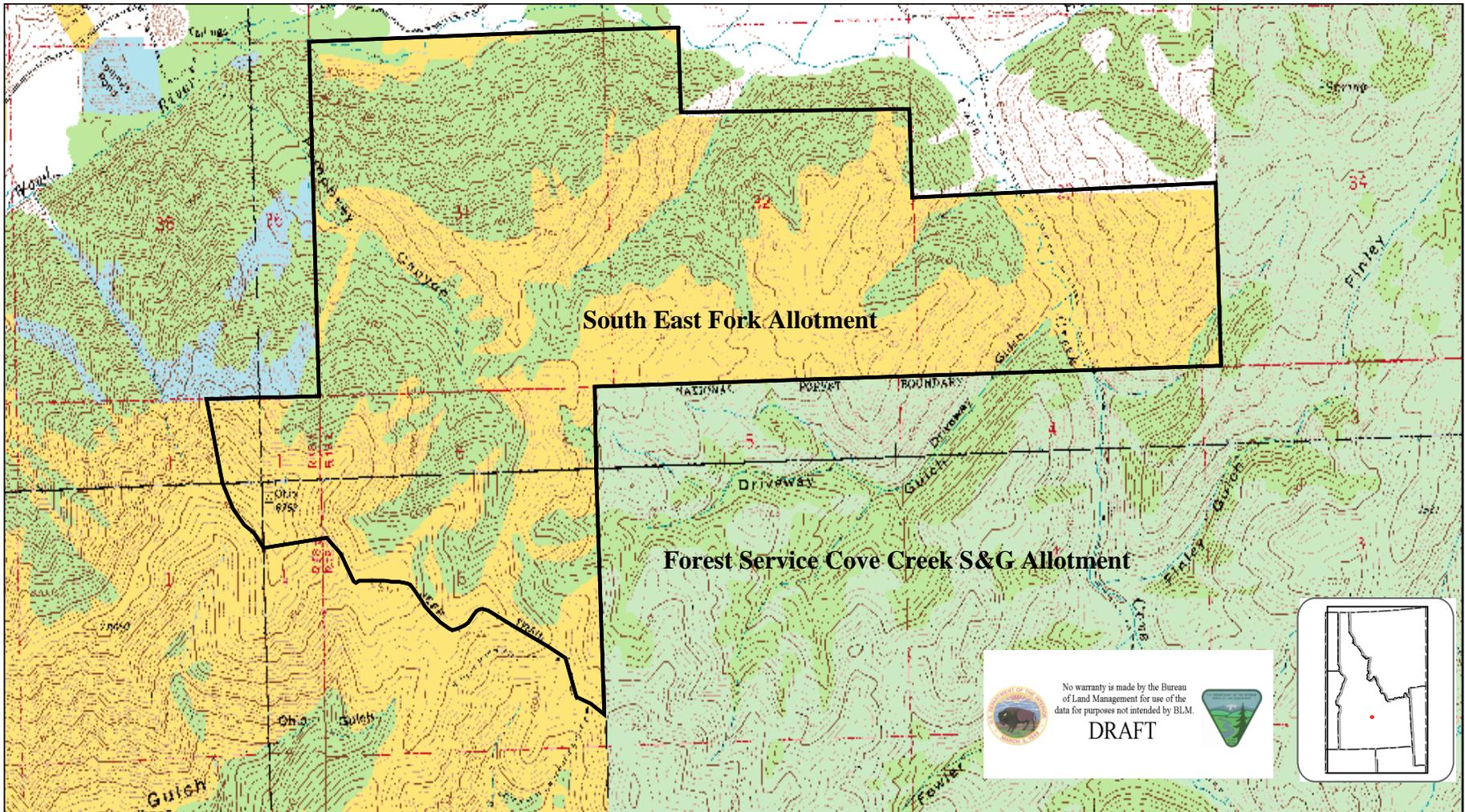
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6.2 Attachments:

Map 1 – South East Fork Allotment Boundary

Map 2 – Livestock Trailing Routes in the South East Fork Allotment
South East Fork Allotment Determination



R 18 E

R 19 E

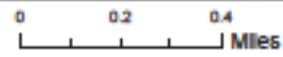
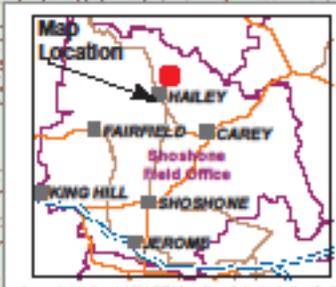
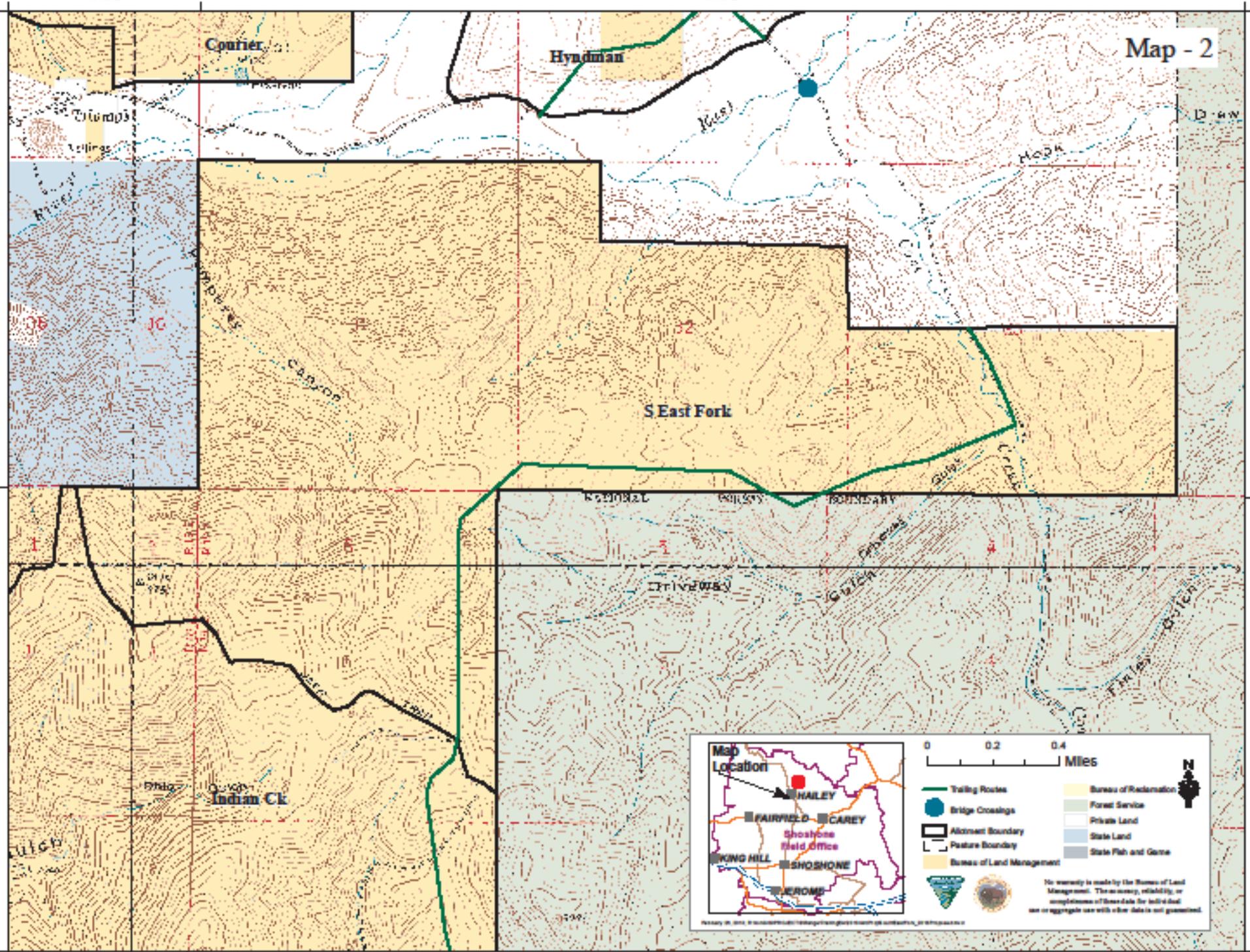
Map - 2

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- Trails
- Bridge Crossings
- Allotment Boundary
- Pasture Boundary
- Bureau of Land Management
- Bureau of Reclamation
- Forest Service
- Private Land
- State Land
- State Fish and Game

No warranty is made by the Bureau of Land Management. The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.

R 18 E

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7.0 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.
3. 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 flow 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.