

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

Environmental Assessment # ID-230-2005-EA-1019  
For the Hill City Branch Allotment (#80609)  
GRAZING PERMIT RENEWAL  
October 31, 2007

Location: Twin Falls District, Shoshone Field Office, 400 West F Street, Shoshone, ID. 83352

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**Hill City Branch Allotment  
Livestock Grazing Permit Renewal  
Environmental Assessment No. ID-230-2005-EA-1019**

**I. INTRODUCTION**

**A. Background**

There are several authorities<sup>1</sup> which mandate or allow the Bureau of Land Management (BLM) to authorize livestock grazing on public lands as part of multiple-use management of natural resources. As a consequence, all land use plans (LUPs) for the BLM-Shoshone Field Office have established grazing allotments, grazing objectives and grazing allocation decisions. Goals, objectives, or decisions in the 1979 Shoshone Grazing Environmental Impact Statement (EIS) guide livestock grazing on the allotment described in this environmental assessment (EA).

The BLM issues grazing permits and leases, hereinafter referred to as permits, for a term not to exceed 10 years. In part because of ownership transfers of private base property, the qualifying base for Idaho BLM's livestock grazing preference, grazing permits issued to livestock permittees expire independent of each other and on a randomly staggered basis. Grazing permits may allow a permittee to graze livestock in one or more individual allotments or graze in common with other permittees livestock in one or more allotments.

The BLM performed a field assessment in 2003 to determine if the Hill City Branch Allotment was meeting Idaho's Rangeland Health Standards. The Final Assessment was completed in 2004. These standards are to be used as the BLM's management goals for the betterment of the environment, protection of cultural resources, and sustained productivity of the rangeland. They were developed with the specific intent of providing for the multiple-use of public lands. The allotment was evaluated to determine if it was meeting the Standards for Rangeland Health. Explanations of the 8 standards are listed below and not all of them are applicable to the Hill City Branch Allotment.

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

**Standard 2: Riparian Areas and Wetlands** – Riparian and wetland areas are in properly functioning condition appropriate to soil type, climate, geology, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow. **This standard does not apply to the Hill City Branch Allotment because there are no natural riparian areas or wetlands present in the allotment.**

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

**Standard 3: Stream Channel/Floodplain** – Stream channels and floodplains are properly functioning relative to the geomorphology (e.g., gradient, size, shape, roughness, confinement, and sinuosity) and climate to provide for proper nutrient cycling, hydrologic cycling, and energy flow. **This standard does not apply to the Hill City Branch Allotment because there are no natural stream channels present in the allotment.**

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

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

**Standard 6: Exotic Plant Communities** – Exotic plant communities, other than seedings, will meet minimum requirements of soil stability and maintenance of existing native and seeded plants. These communities will be rehabilitated to perennial communities when feasible cost effective methods are developed. **This standard does not apply to the Hill City Branch Allotment because there are no exotic plant communities present in the allotment.**

**Standard 7: Water Quality** – Surface and ground water on public lands comply with the Idaho Water Quality Standards. **This standard does not apply to the Hill City Branch Allotment because there is no natural surface water present in the allotment.**

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

A formal determination by the Shoshone Field Manager has been made for the Hill City Branch Allotment on whether each of the eight Standards was being met as required by federal regulation following a field review for Idaho Standards for Rangeland Health and analysis of available monitoring data. Table 1 shows the summary of allotment results of the applicable Standards. Available data that has been provided or gathered in relation to the Hill City Branch Allotment has been reviewed for the development of this EA.

**Table 1: Summary of Rangeland Health Assessment Determination**

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

***B. Type of Action***

The type of action this environmental assessment is proposing is a grazing permit renewal with the addition of Grazing Management Objectives and Range Monitoring.

***C. Purpose and Need for Action***

On December 20, 2004, the Rangeland Health Assessment for the Hill City Branch Allotment was completed and sent to interested public. In 2007, it was determined that Standard 4—Native Plant Communities and Standard 8—Threatened and Endangered Plants and Animals are not being met in the Hill City Branch Allotment, but current livestock grazing is not a factor. The current grazing management in the Hill City Branch Allotment is adequate in providing for proper nutrient cycling, hydrologic cycling, and energy flow; however, the grazing management system needs adjustment. Standards for Rangeland Health, as applied in the State of Idaho, are considered in this EA and the current permit would be renewed under the auspices of the Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.

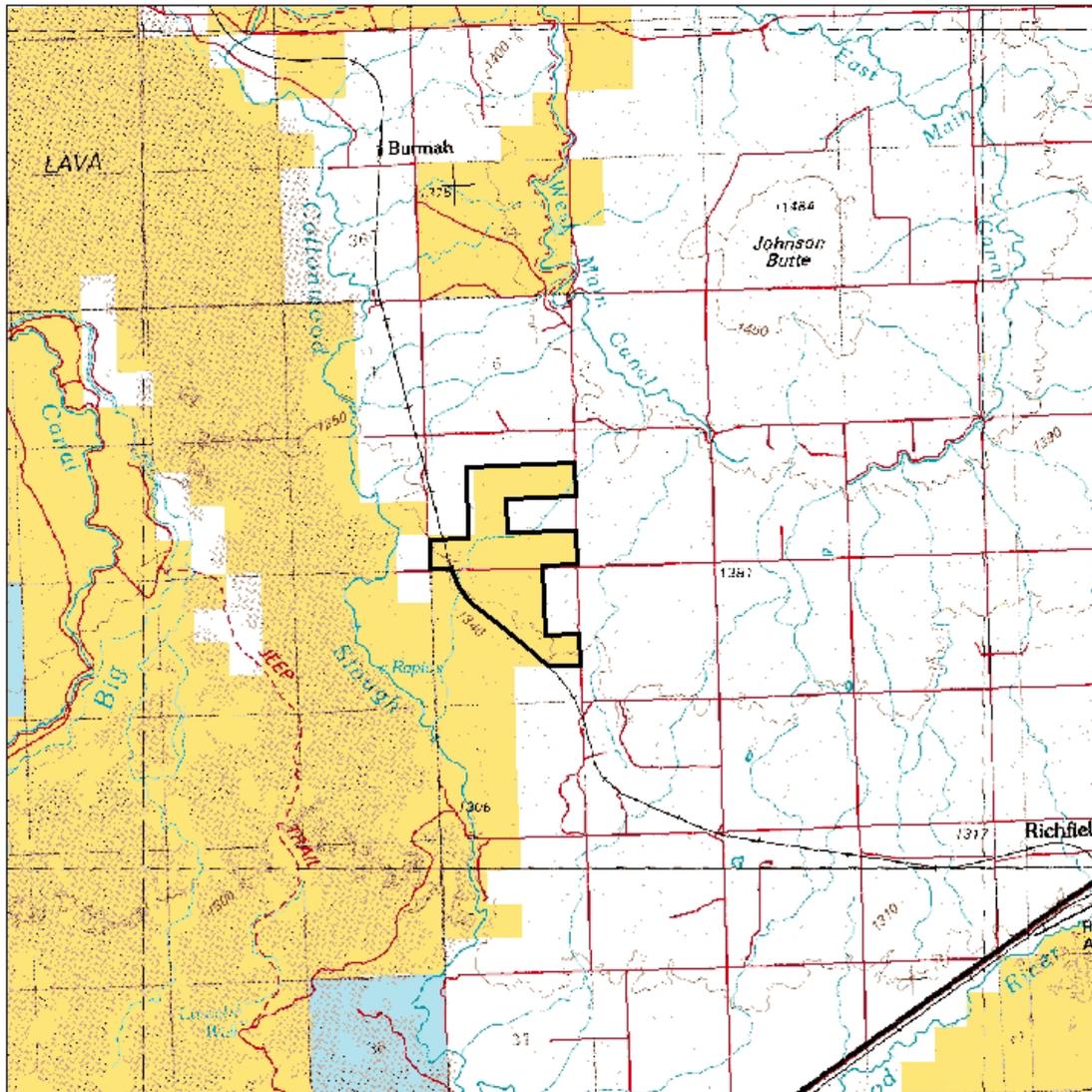
Based on the mandates of the above mentioned authorities, the underlying need for action is to continue authorizing grazing in the Hill City Branch allotment, incorporating the requirements of the Standards for Rangeland Health. All rangeland management practices are to result in meeting or making significant progress toward meeting the Standards for Rangeland Health.

An EA is necessary to determine the manner and degree to which issuing grazing permits would, based on existing information, continue to provide a reasonable balance between competing resource values and meet the requirements for Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration required by 43 Code of Federal Regulations, Subpart 4180. Management actions would emphasize correcting any standard that received a rating of not meeting one or more standards and continuing to meet those standards that are currently met.

***D. Location of Proposed Action***

The Hill City Branch Allotment is located approximately 4 miles northwest of Richfield, Idaho (refer to Map 1). The southwestern boundary is formed by an old abandoned railroad bed, but the rest of the allotment is bordered by private land. The elevation averages about 4500 feet.

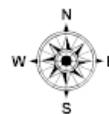
**Map1. Hill City Branch Allotment and Locality**



United States Department of the Interior  
Bureau of Land Management  
Twin Falls District, Idaho

**Legend**

-  Hill City Branch Allotment
-  Bureau of Land Management
-  State
-  Private



No warranty is made by the Bureau of Land Management for use of the data for purposes not intended by BLM.  
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### ***E. Conformance to Land Use Plan***

Reissuance of grazing permits would be in conformance with the 1976 Bennett Hills-Timmerman Hills Management Framework Plan (MFP) as implemented by the record of decision for the 1979 Shoshone Grazing Environmental Impact Statement (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. The season of use was set at May 1 to September 30 and there was no change in the grazing rotation or class of livestock. However, in the 1979 Shoshone Grazing EIS, the stocking rate in the Hill City Branch Allotment was suggested to be reduced from 90 AUMs to 51 AUMs over three years to help improve deteriorating forage conditions. This reduction was not fully implemented due to increased forage through seeding projects.

Specifically, the Proposed Action and Alternative 1 conform to the following objectives stated on page 1-7 of the Shoshone Grazing Environmental Impact Statement:

1. To increase forage production to the estimated potential of the land
2. To attain and perpetuate good range conditions
3. To improve stability and reliability available forage
4. To protect and provide for the identified needs of threatened, endangered plants and animals
5. To provide adequate forage for present and future numbers of big game animals
6. To establish and/or maintain a diverse vegetation composition of shrubs, forbs, and grasses
7. To improve the overall watershed conditions
8. To maintain the visual quality of the overall landscapes.

### ***F. Relationship to Statutes, Regulations, or Other Plans***

In 1980, a Cooperative Agreement was signed for the AUM reduction from 90 to 51 and voluntary non-use for two years for range improvement projects to improve vegetation conditions. In 1984, following the expiration of the Cooperative Agreement, a Proposed Decision was issued in which the permittee was allocated 75 AUMs of Active Preference, 15 AUMs of Suspended Preference, and a Spring-Summer-Rest grazing system. This Decision was protested. In 1986, a Final Decision was issued in which the Active Preference was 75 AUMs, the Suspended Preference was 15 AUMs, and the grazing system was set to graze season long (May 1 – September 30) twice and rest once every three years.

An EA completed pursuant to the 1969 National Environmental Policy Act (NEPA) is necessary to determine the manner and degree to which issuing grazing permits would, based on existing information, continue to provide a reasonable balance between competing resource values and meeting the requirements for Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration required by 43 Code of Federal Regulations, Subpart 4180. Management actions would emphasize correcting any standard that received a rating of not meeting the standard because of current livestock management practices. Currently, the Hill City Branch Allotment is not meeting Standards 4 and 8 of Idaho's Standards for Healthy Rangelands, but current livestock grazing is not a factor.

## II. PROPOSED ACTION AND ALTERNATIVES

This section describes the on-the-ground management actions which the BLM proposes to implement as a result of the Standards for Rangeland Health Assessment and management issues and concerns brought forward by the permittee and interested publics.

### A. *Proposed Action—Reissue Modified Grazing Permit*

Under this Proposed Action, the Shoshone Field Office Manager would continue to authorize grazing within this allotment. The Hill City Branch Allotment grazing permit would be issued for a term of ten years, beginning March 1, 2008. The new permit would re-authorize the use of 75 cattle AUMs of active preference and 15 suspended AUMs. Through this action, the season of use would remain the same as stated in the Shoshone Grazing EIS, from May 1 to September 30. However, the maximum cattle numbers that would be allowed would be increased to 75, to allow the permittee to use the AUMs for a shorter duration. This change of numbers would be in compliance with the 1979 Shoshone Grazing EIS which does not specify the number of livestock to be allowed in the allotment.

Grazing management objectives and range monitoring objectives with utilization standards would be added to the permit in order to provide for additional protection to the resource and to comply with 43 CFR 4180.1. This would help ensure that the Hill City Branch Allotment make significant progress towards meeting the Rangeland Health Standards in the future. The permit would be reissued for up to 10 years in accordance with terms and conditions of the management described below. The proposed grazing use with terms and conditions is shown in Table 2.

**Table 2: Proposed Authorized Use in the Hill City Branch Allotment**

Allotment		Livestock		Grazing Begin	Period End	% PL	Active AUMs	Suspended AUMs	Total AUMs
Number	Name	Number	Kind						
80609	Hill City Branch	75	cattle	05/01	09/30	100	75	15	90
<b>Terms &amp; Conditions:</b>									
Grazing must conform to the grazing plan set forth in the Hill City Branch Allotment Livestock Grazing Permit Renewal Environmental Assessment No. ID-230-2005-EA-1019 as implemented by the Field Office Manager's Final Decision dated 11/2/2007.									
The permittee would be able to graze up to 75 cattle in the Hill City Branch Allotment, as long as total AUMs used does not exceed the 75 Total Active AUMs established for the allotment.									
No livestock use will be authorized outside the dates shown above.									
Range improvements must be maintained, to Bureau standards, by the turnout date.									

The closing date may be moved forward, shortening the season, if any of the following conditions apply: 1) The allotment has reached full permitted use; 2) The allotment has reached an average utilization level of 40 percent on native key species or 50 percent on crested wheatgrass; and 3) Removal of livestock is necessary to protect vegetative resources. The key grass species are bluebunch wheatgrass, Thurber's needlegrass, and crested wheatgrass.

The permits may be modified at any time should information collected subsequent to the permit renewal indicate changes in management are needed to follow the Fundamentals of Rangeland Health. Management must also meet or make significant progress toward meeting Rangeland Health Standards and conformance to Guidelines.

Livestock numbers shown above are the maximum number authorized to be used. Livestock use in the Hill City Branch Allotment will not occur outside of the grazing season and will not exceed a total of 75 cattle in the allotment at one time. Using the maximum number of livestock shown would require a shorter season of use in order to stay within the authorized AUMs. The grazing system for the Hill City Branch Allotment is summarized in the following table.

**Table 3: Proposed Rotation System in the Hill City Branch Allotment**

2008	2009	2010*
5/1 – 7/15	7/16 – 9/30	Rest

\*After the 2010 grazing season, the rotation system would begin again.

**1. Grazing Management Objectives under the Proposed Action.**

The grazing permit would be issued at the current active preference of 75 AUMs 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.

Utilization of key perennial native grasses (i.e., bluebunch wheatgrass and Thurber’s needlegrass) would be limited to 40% of current year’s growth in key areas, i.e., ½ mile from water features, including canals, seeps, ponds, or troughs. Utilization levels would be limited to 50% on crested wheatgrass in key areas. All utilization would be conducted based on the Height-Weight methodology described in Interagency Technical Reference 1734-3, “Utilization Studies and Residual Measurements.”

**2. Range Monitoring under the Proposed Action.**

Monitoring of the allotment would occur periodically during the active grazing use period to ensure that use on key native perennial grasses does not exceed the 40% utilization objective as well as a utilization objective of 50% on crested wheatgrass.

Prior to reaching these utilization levels the permittee will be required to either move the livestock to an area within the allotment where utilization levels are not met or remove them from the allotment, regardless of calendar date. Adjustments in the grazing system may be authorized to meet future conditions and situations.

Utilization mapping based upon key forage plant method would be conducted periodically, after cattle are removed from the allotment. Actual use would be summarized from actual use cards collected at the end of the season.

**B. Alternative 1 – No Action**

Under the No Action Alternative, there would be no change from current management practices or the current grazing management system in the allotment. This alternative refers to renewing the permit without any modifications. The Hill City Branch Allotment grazing permit would be issued for the same kind of livestock and at the same active AUM preference level as presently authorized; which is 75 cattle AUMs to be used between May 1 and September 30. The Grazing Management Objectives and Range Monitoring would not be added as a term and condition of the permit. The proposed grazing use with terms and conditions is shown in Table 4.

**Table 4: Alternative 1 Authorized Use in the Hill City Branch Allotment**

Allotment		Livestock		Grazing Begin	Period End	% PL	Active AUMs	Suspended AUMs	Total AUMs
Number	Name	Number	Kind						
80609	Hill City Branch	15	cattle	05/01	09/30	100	75	15	90
<b>Terms &amp; Conditions:</b>									
Grazing must conform to the grazing plan set forth in the Hill City Branch Allotment Livestock Grazing Permit Renewal Environmental Assessment No. ID-230-2005-EA-1019 as implemented by the Field Office Manager’s Final Decision dated 11/2/2007.									
Range improvements must be maintained, to Bureau standards, by the turnout date.									

**C. Alternative 2 – No Grazing**

Under this alternative, the BLM Shoshone Manager would not reissue a grazing permit and thus discontinue livestock grazing in the Hill City Branch Allotment. A “No Grazing” alternative was specifically analyzed in the 1979 Shoshone Grazing Environmental Statement and was ultimately not selected. The Hill City Branch Allotment has been allotted and made available for livestock grazing in the Land Use Plan and therefore the No Grazing Alternative was eliminated from further consideration.

**III. AFFECTED ENVIRONMENT**

**Critical Elements of the Human Environment:**

The following elements of the human environment are subject to requirements specified in treaty, statute, regulation, or executive order and must be considered in all environmental assessments. All of the following elements have been analyzed. However, elements denoted by a  are *not affected* by the proposed action or alternatives and will receive no further consideration.

**Table 5. Critical Elements of the Human Environment**

<input checked="" type="checkbox"/> Air Quality	<input type="checkbox"/> Threatened/Endangered Plants; Sensitive Plants
<input checked="" type="checkbox"/> Areas of Critical Environmental Concern	<input type="checkbox"/> Threatened/Endangered Fish; Sensitive Fish
<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Threatened/Endangered Animals; Sensitive Animals
<input checked="" type="checkbox"/> Environmental Justice (EO 12898)	<input checked="" type="checkbox"/> Wastes, Hazardous or Solid
<input checked="" type="checkbox"/> Farm Lands (prime or unique)	<input checked="" type="checkbox"/> Water Quality – Surface & Ground
<input checked="" type="checkbox"/> Floodplains	<input checked="" type="checkbox"/> Wetlands/Riparian Zones
<input type="checkbox"/> Invasive, Non-native Species	<input checked="" type="checkbox"/> Wilderness and WSAs
<input checked="" type="checkbox"/> Migratory Bird Treaty Act Species	<input checked="" type="checkbox"/> Wild & Scenic rivers – eligible, suitable and designated
<input checked="" type="checkbox"/> Native American Religious Concerns	<input checked="" type="checkbox"/> Tribal Treaty Rights

The elements listed below are not included on the “critical elements” list, but are important to consider in assessing all impacts of the proposal(s). All of the following elements have been analyzed. However, elements denoted by a  are *not affected* by the proposed action or alternatives and will receive no further consideration.

**Table 6. Other Important Elements of the Human Environment**

<input checked="" type="checkbox"/> Paleontological Resources	<input checked="" type="checkbox"/> Fisheries
<input checked="" type="checkbox"/> Mineral Resources	<input checked="" type="checkbox"/> Forest Resources
<input checked="" type="checkbox"/> Availability of Public and/or Administrative Access- Need to Reserve Access	<input type="checkbox"/> Soils
<input type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Wild Horse and Burro Designated Herd Management Areas
<input checked="" type="checkbox"/> Recreation Use, Existing and Potential	<input checked="" type="checkbox"/> Visual Resources
<input type="checkbox"/> Existing and Potential Land Uses (permits, leases, sales)	<input checked="" type="checkbox"/> Economic & Social Values
<input type="checkbox"/> Vegetation Types/Communities	<input checked="" type="checkbox"/> Other

Critical and important elements that are checked as “not affected” were considered during the environmental analysis process but were identified as such because they are not present within the allotments being analyzed. Recreational pursuits in the allotment are primarily upland and big-game hunting. These opportunities would not be affected by the proposed action. The Hill

City Branch Allotment is adjacent to the Lava Wilderness Study Area, but the Proposed Action and Alternatives would not alter the wilderness values associated with the WSA.

#### **A. Soils**

The soils in the Hill City Branch Allotment are limited to complexes involving Kinzie and Marley soils at various ratios and slopes. These are fine sandy loams and similar inclusions common in depressions on basalt plains with an annual precipitation of about nine inches. These soil types have a moderate potential for erosion and most have a relatively high potential for compaction. Both tend to have a hardpan at about 40 inches that can restrict rooting depth.

#### **B. Vegetation Including Invasive Non-Native Species**

The major ecological site in this allotment is Loamy 11-13" (Wyoming big sagebrush/bluebunch wheatgrass-Thurber needlegrass), most of which has been converted to a seeded grassland. This seeding project, conducted in 1981, was designed to improve forage production and included chaining the sagebrush then drilling in with 'Nordan' crested wheatgrass and 'Nomad' alfalfa. Wyoming big sagebrush has reestablished within the allotment, but is decadent.

Cover data in the small area of unseeded rangeland indicate that Sandberg's bluegrass, cheatgrass, and lupine are the dominant plant species. The actual cover of Sandberg's bluegrass was 16%. Cheatgrass was 30% of the cover for the area. Lupine comprised 13% of the cover. Wyoming big sagebrush and threetip sagebrush were present on 11% of the transect points, but much of the Wyoming big sagebrush was decadent. Perennial forbs comprised 16% cover.

Cover data in the seeded rangeland indicate that Sandberg's bluegrass, crested wheatgrass, cheatgrass, and Wyoming big sagebrush are the dominant plant species. The actual cover of each of these was 25%, 10%, 9%, and 7%, respectively. Wyoming big sagebrush is re-establishing within the seeding, as are some native bunchgrasses. Perennial and annual forbs are a small component of the site.

No noxious weeds were found in the allotment, but weeds such as rush skeletonweed, diffuse knapweed, Scotch thistle and Canada thistle occur on public and private land, as well as along roadways, near the allotment. Dalmatian toadflax and perennial pepperweed are not known to occur in the area of the allotment, but they are actively spreading within the Big Wood River drainage and could pose a future threat to the lands in the allotment.

#### **C. Existing and Potential Land Uses (Livestock Grazing)**

##### **1. Hill City Branch Allotment Grazing System**

Lawrence Calkins is the current permittee in the Hill City Branch Allotment. He has had the livestock grazing permit since 1996. The allotment is currently managed through a Decision dated February 28, 1986. The Hill City Branch Allotment is a single pasture and is primarily a crested wheatgrass seeding. The grazing schedule calls for season long use (May 1 – September 30) for two years, and then is rested for one. The grazing permit authorizes 75 cattle AUMs to be used from 5/1 to 9/30 by 15 cattle. However, the actual number of cattle that have grazed in the allotment has varied from 15 head to 108 head.

## 2. Actual use

Actual use data for the Hill City Branch Allotment have been collected annually since 1977. The average actual use between 1977 and 1980 was 37 AUMs or 48% of the active preference. This low amount of actual use is primarily due to 10 years worth of non-use.

**Table 7: Actual Use Summary**

<b>Year</b>	<b>Grazing Use Period</b>	<b>Active Preference (AUMs)</b>	<b>Number of Livestock</b>	<b>AUMs Used</b>	<b>Percent of Active Use</b>
2005	Nonuse	75	0	0	0
2004	Nonuse	75	0	0	0
2003	Nonuse	75	0	0	0
2002	05/01 – 9/30	75	15	75	100
2001	Nonuse	75	0	0	0
2000	09/01 – 09/25	75	108	78	104
1999	Nonuse	75	0	0	0
1998	05/22 – 10/20	75	15	75	100
1997	05/01 – 9/30	75	15	75	100
1996	11/22	75	1414 sheep(trail)	9	12
1995	05/31 – 07/03 08/08 – 09/27	75	15	42	56
1994	Nonuse	75	0	0	0
1993	05/01 – 9/30	75	15	75	100
1992	Nonuse	75	0	0	0
1991	Nonuse	75	0	0	0
1990	06/01 – 09/05	75	15	48	64
1989	05/08 – 09/08	75	15	61	81
1988	Nonuse	75	0	0	0
1987	05/01 – 09/15	75	15	68	91
1986	Nonuse	75	0	0	0
1985	05/01 – 9/30	75	15	75	100
1984	05/01 – 9/30	75	15	75	100
1983	Nonuse	75	0	0	0
1982	Nonuse	75	0	0	0
1981	05/01 – 08/17	75	21	75	100
1980	05/01 – 08/17	90	25	89	99
1979	05/12 – 08/28	90	10	36	40
1978	07/01 – 08/15	90	25	38	42
1977	04/15 – 08/01	90	25	89	99

Note: The original actual use forms can be found in the Hill City Branch Allotment Studies File at the Shoshone BLM Office.

### **3. Use Patterns**

Utilization mapping conducted in the Hill City Branch Allotment has shown that the heavier use areas are concentrated in the central area of the allotment. Generally, the farther away from the section line between Sections 7 and 18, the lighter the use becomes. The original use pattern maps can be found in the Hill City Branch Allotment Studies File at the Shoshone BLM Office.

#### ***D. Wildlife***

Wildlife species which are commonly associated with a native shrub steppe habitat with mixed perennial grasses and forbs are present in the allotment. Big game wildlife species include mule deer, pronghorn, and elk. Mule deer use occurs year round but primarily in the fall, winter, and spring months. Pronghorn use occurs primarily in the spring, summer, and fall months. A brief listing of the more common wildlife species which are known or likely to be found during a portion of the year include elk, mule deer, pronghorn, coyote, cottontail, black-tailed jackrabbit, and golden eagle in addition to numerous kinds of small mammals and song birds. A more complete listing of possible animal species likely to occur in habitats found in the allotment is referenced in the 1979 Shoshone Grazing EIS.

#### ***E. Threatened, Endangered and BLM Sensitive Species***

The listed plant or animal species which potentially may occur in the allotment include gray wolf (*Canis lupus*) and Canada lynx (*Lynx canadensis*). The BLM lists some additional plants and animals as BLM Sensitive Species in Idaho. The BLM Sensitive Species that may occur in the allotment are discussed below.

**Plants:** The allotment is within the known range for mourning milkvetch (*Astragalus atratus* var. *inseptus*), a BLM Sensitive species. Populations have been documented within about five miles of the allotment; however there are no known populations on public land within the allotment boundary. A portion of the allotment was inventoried in 2005 and no plants or potential habitat were detected. Potential habitat could occur on clay loams within the allotment boundary.

**Animals:** The presence of gray wolf in the general project area would most likely occur during the winter. Past sightings of gray wolves in the general area are thought to be solitary individuals making a rare incursion into the area. The successful translocation of wolves in central Idaho coupled with recent sightings of gray wolves in the winter of 2006/2007 in the Gannett, Idaho area makes it likely that wolves would begin to make incidental use of public lands in the Hill City Branch Allotment.

The Hill City Branch Allotment does not contain habitat conditions suitable for Canada lynx foraging, movement and dispersal activities. The Idaho Conservation Data Center records indicate that a lynx was reported to have been observed in the general vicinity of Bellevue, Idaho in January, 1984. This allotment is located about twenty-four air miles from the confirmed observation location. In Idaho, lynx are thought to primarily occur in the higher elevation cold forest habitats that support spruce, subalpine fir, whitebark pine, and lodgepole pine, or moist Douglas fir habitat types. Shrub steppe habitats that occur adjacent to, or are intermixed with, cold forest habitats in Idaho are thought to be used to a limited extent by lynx for foraging and

dispersal activities. None of these habitat conditions or vegetation communities occur on or adjacent to the Hill City Branch Allotment.

Bald eagle (*Haliaeetus leucocephalus*) was recently removed from the endangered species list, but remains a Type II, range-wide/globally imperiled species. However, bald eagles are very unlikely to utilize the habitats available in the Hill City Branch Allotment area.

BLM Sensitive mammals that may occur in the allotment during all or a portion of the year are Townsend's big-eared bat, (*Corynorhinus townsendii townsendii*) and pygmy rabbit (*Brachylagus idahoensis*). The big-eared bat would most likely use shrub-covered areas in the allotment for dispersed foraging activities. The pygmy rabbit may be found in areas with a mature sagebrush overstory.

Shrub steppe habitat is crucial to the reproductive success and long-term survival of a number of animal species. Sage grouse require large areas of sagebrush to survive and there is a considerable amount of information about their habitat requirements in comparison with other sagebrush obligates. Sagebrush habitats which contain the structural components and habitat diversity necessary to meet the life cycle needs of sage grouse are also likely to provide suitable habitat conditions for other sagebrush obligate species. The allotment is within Key sage grouse habitat. There are no active or historic sage grouse leks documented within the allotment. Several historic leks are located within five miles of the allotment, though the most recent documented use of any of these leks was in 1984. The allotment provides marginal sage grouse nesting and brood rearing habitat for sage grouse, and suitable winter habitat.

The historic distribution of pygmy rabbits in Idaho spanned much of the Snake River Plain. Suitable pygmy rabbit habitat is thought to be associated with sites containing relatively deep soils that support a tall, dense overstory of big sagebrush. No pygmy rabbits have been observed in the Hill City Branch Allotment. However, there have been several sightings at the Craters of the Moon National Monument, the latest of which was in 2001. During the summer of 2003, a coarse-scale pygmy rabbit survey was conducted by University of Idaho contractors in the Shoshone Field Office. Preliminary findings from the inventory did not identify any possible pygmy rabbit sightings or burrow complex in the allotment; however, the area was identified in the mid to high category for potential habitat.

#### **IV. ENVIRONMENTAL IMPACTS**

This section describes the effects that the proposed action and alternatives may have upon the various resources described earlier.

##### **A. *Effects of Proposed Action***

###### **1. Soils**

No direct measurements have been conducted to determine if a change in soil loss has occurred following the 1979 Shoshone Grazing EIS. Continued livestock grazing in the Hill City Branch Allotment would affect soil resources on public lands. Existing rates of soil compaction and erosion as characterized in the Shoshone Grazing EIS were calculated to be about 0.95 acre

feet/square mile/year. These erosion rates were calculated using the Musgrave Equation, as explained in Appendix 2 of the Shoshone Grazing EIS.

The Kinzie-Marley complex does contain small quantities of clay loams. Typically, clay loams tend to be more prone to compaction, but also to the affects of freezing and thawing due to the water holding capacity of clays. Compaction reduces root penetration, plant seeding establishment, and water infiltration. Compacted soils cause a higher percentage of rainfall or snowmelt to run off, in turn, increasing erosion rates and reducing soil moisture content (USDA, Natural Resources Conservation Service, 2001). Freezing and thawing can reverse some soil compaction, especially in areas such as the Hill City Branch Allotment that are not grazed heavily every year.

The BLM has not observed, nor received any reports of noticeable soil erosion in the Hill City Branch Allotment. Unacceptable levels of soil erosion due to livestock grazing as a result of this proposed action is not expected. Under the Proposed Action, the watershed condition in this allotment is adequate for maintaining soil stability and hydrologic cycling.

Litter is important in reducing compaction, erosion and increasing nutrient cycling of minerals and plant nutrients. Removal of vegetation reduces the amount of litter and nutrient cycling in the soil. However, this amount of vegetation removal should only occur in very small areas where livestock congregate such as near livestock salting sites or where livestock receive their water.

Increasing the number of livestock allowed in the allotment, especially in the spring when soils could be moist, could result in increased soil compaction rates. However, if the permittee were to choose to turn out the maximum number in the allotment, in the spring, the duration of the grazing season would be shortened.

## **2. Vegetation Including Invasive Non-Native Species**

The Proposed Action would re-authorize the current level of active preference at 75 AUMs. This analysis assumes that similar, annual variation in actual use would occur. This analysis also assumes that utilization standards of 40% on key native grasses and 50% on crested wheatgrass will be maintained throughout the use period. Vegetation management objectives for the Hill City Branch Allotment focus on sagebrush and perennial bunchgrasses such as crested wheatgrass, bluebunch wheatgrass, and Thurber's needlegrass. Utilization of key perennial native grasses will be limited to a maximum of 40% of current year's growth. Changes in vegetative composition could occur in areas where heavy grazing takes place. Shifts in vegetative composition from heavy use usually translates to an increase in undesirable species, a decline of more desirable forage and cover species and increased soil erosion. These areas generally are around watering locations, salt blocks, and other places where livestock tend to congregate. The Hill City Branch Allotment Studies file has utilization maps completed that delineate these areas and these maps are available upon request.

The majority of impacts in the Hill City Branch Allotment described for the vegetation resources are centered on the needs of bluebunch wheatgrass and seeded crested wheatgrass. Bluebunch

wheatgrass is sensitive to defoliation and relatively slow to recover from grazing damage associated with early season use and use during the majority of the active growing season (Anderson 1991). Since it is the key native species, it serves as a good indicator because it responds quickly to grazing pressure. It follows then that if they are managed properly, other species will also be managed properly. Seedings are the largest component of Hill City Branch Allotment and crested wheatgrass is the key species in these seeded areas. Under the Proposed Action, utilization levels will not exceed 50% on crested wheatgrass.

Direct impacts to vegetation can result from herbage removal by livestock through plant consumption and trampling. High utilization levels can change the composition of the vegetative community, especially if high levels occur in several subsequent years. The more desirable grass species such as bluebunch wheatgrass could lose vigor and decrease in abundance. Drought conditions can amplify the stress placed on plants and reduce vigor. Alternatively, grazing can stimulate plant growth and removal of apical dominance in grasses can increase foliar cover by stimulating leaf production.

It is anticipated that increasing the number of livestock grazing at one time, while decreasing the duration of the grazing period would result in more uniform use of the vegetation over the allotment. This translates into reducing the size of the heavy use area and light use area, while increasing the size of the moderate use area. This pattern should be particularly apparent in the spring when livestock distribution is naturally more dispersed due to cooler temperatures and the lessened need for water.

On normal years, seed ripe for bluebunch wheatgrass and crested wheatgrass occurs in early- to mid-July. The new rotation system would allow grazing one year prior to seed ripe, the next after seed ripe, then rest. This system would allow two years out of three for bluebunch wheatgrass and crested wheatgrass to set seed.

### **3. Existing and Potential Land Uses (Livestock Grazing)**

The primary effects of the Proposed Action on Livestock Grazing would be to allow more flexibility in the numbers of cattle that could graze in the allotment. This would, in effect, shorten the season that cattle are present within the allotment. The Proposed Action would also adjust the grazing system to allow grazing one year prior to seed ripe, the next after seed ripe, then rest. This system would allow two years out of three for desirable perennial bunchgrasses to set seed.

### **4. Wildlife**

Impacts to wildlife from this action would be a result of seasonal or long term changes in plant community structure, seasonal dietary overlap and in some instances social displacement. Domestic sheep, pronghorn and mule deer have similar seasonal dietary preferences, as do cattle and elk. Livestock grazing during the spring and early summer months would result in the greatest overall dietary overlap with mule deer, pronghorn and elk. Cattle grazing during the proposed permitted use period (May 1 to September 30) could result in competition between cattle, elk and mule deer for early season forage, though elk and mule deer tend to migrate north into higher elevations by this time. The dietary overlap between cattle and mule deer is limited

resulting in a reduced impact to the local mule deer population from competition with cattle for forage.

## **5. Threatened, Endangered and BLM Sensitive Species**

The proposed livestock grazing treatment is not expected to perceptively alter habitat suitability for the federally listed gray wolf or Canada lynx which may occur on the Hill City Branch Allotment. The suspected very low, incidental use level of the project area by these two listed animal species is expected to result in “No Affect” to the continued existence of the gray wolf or Canada lynx.

Cattle grazing during the permitted use period would occur during sage grouse nesting and early brood-rearing periods. The proposed grazing use period would result in some cattle use of native forbs preferred by sage grouse. The decrease in herbaceous cover values in the allotment would increase the possibility of nest site predation and reduce concealment and security cover for young sage grouse chicks. Reduction in height and diversity of vegetation would also reduce the number and occurrence of insects, a key component in the diet of young sage grouse chicks. Reducing plant species diversity and vigor in the native plant communities would produce fewer suitable habitat conditions for many of the Sensitive shrub steppe wildlife species expected to occur in the area.

Limiting the native forage species utilization level to 40% would result in an improvement in stubble height of bluebunch wheatgrass at the end of the grazing period over current conditions. Implementing deferred rest-rotation would also allow improved vigor of the vegetation resulting in increased cover values for sage grouse over time.

## **6. Cumulative Impacts under the Proposed Action**

Cumulative effects of the Proposed Action are primarily defined in the context of effects to the vegetation resource in the Hill City Branch Allotment, which influences other natural and cultural resources. The geographic scope of the proposed grazing permit renewals will be limited to just those 544 total federal acres in the allotment. Cumulative effects of grazing management on vegetation are discussed in detail below.

### **a. Past Actions (Last 100 Years)**

Livestock grazing has occurred in the area of the Proposed Action since the late 1800s. This area was first managed by the General Land Office (GLO) and designated as arid, broken, mountainous, or grazing in character (USDI-BLM 1988). Many western ranchers depended on this remaining public domain to help support their livestock. The local ranchers grazed these lands in conjunction with their private ranch lands and it was on a first-come, first-served basis. All of these lands had unregulated grazing until the implementation of the Taylor Grazing Act of 1934. In 1946, the Department of the Interior formed the Bureau of Land Management and grazing on public lands was formalized and divided into grazing allotments.

There have been no fires in the Hill City Branch Allotment within the past 70 years. There was one vegetation treatments in the Hill City Branch Allotment in the early 1980s. This project, a

chain and seed project, covered about 80 percent of the allotment, which removed much of the sagebrush and introduced crested wheatgrass to the pasture.

**b. Future Actions**

The area involved in this permit renewal EA is one of limited recreational use. However, the entire area around the town of Richfield is growing as a “bedroom community” of the Wood River Valley. With this growth comes increased demand on the public lands for recreational opportunities. It could be reasonably anticipated that impacts associated with recreation would increase in the next several years.

Along with increased recreational use would come the increased likelihood of user conflicts between the permittee and recreationists, increased instances of livestock-automobile accidents, and increased chance of human caused wildfires throughout the area.

The nearest towns to this area are Richfield and Shoshone. These towns still depend on farming and ranching as their primary source of income. This does have potential for change as a result of the influx of people moving into the area and commuting to work in the Wood River Valley or the Magic Valley. Richfield and Shoshone are also starting to see growth and increases in property values associated with the Wood River Valley expanding to surrounding communities for affordable housing. If this trend continues, these communities could see increased housing development and less dependency on rural income.

A formal determination (attached) by the Shoshone Field Manager has been made for the Hill City Branch Allotment that shows that Standard 1—Watersheds and Standard 5—Seedings are currently being met as required by federal regulation CFR 4180. However, Standard 4—Native Plant Community and Standard 8—Threatened and Endangered Plants and Animals are not being met, but current livestock grazing is not a factor. The Proposed Action analyzes the renewal of the grazing permit with the inclusion of the Grazing Management Objectives and Range Monitoring guidelines into the active allotment management. It also includes adjusting the grazing system to a rest rotation system that would lead the allotment towards meeting these Rangeland Standards.

There are no other range improvement projects being anticipated in the Hill City Branch Allotment at this time. The only reasonably foreseeable future action in the Hill City Branch Allotment is another permit renewal in 2018. Permit renewals are only issued for a term of ten years. Future permit renewals would be reviewed at the appropriate time under existing regulations and, if applicable, after the completion of another *Fundamentals of Rangeland Health* Assessment. If changes are necessary in the future, they will be made to ensure conformance to current regulations.

***B. Impacts of Alternative 1- No Action***

The following description of expected consequences under Alternative 1 refers to those impacts likely to occur in the Hill City Branch Allotment which differ from the likely impacts described for the Proposed Action. The impacts described for the Proposed Action apply to Alternative 1 unless provided below.

## **1. Soils**

No direct measurements have been conducted to determine if a change in soil loss has occurred following the 1979 Shoshone Grazing EIS. The continuation of the current situation in the Hill City Branch Allotment would continue to affect soil resources on public lands. Existing rates of soil compaction and erosion as characterized in the Shoshone Grazing EIS were calculated to be about 0.95 acre feet/square mile/year. These erosion rates were calculated using the Musgrave Equation, as explained in Appendix 2 of the Shoshone Grazing EIS.

The BLM has not observed, nor received any reports of noticeable soil erosion in the Hill City Branch Allotment. Unacceptable levels of soil erosion due to livestock grazing as a result of this alternative action are not expected. Under the present management, the watershed condition in the Hill City Branch Allotment is adequate for maintaining soil stability and hydrologic cycling.

Under this alternative, livestock grazing in the spring would result in less compaction than the proposed action, due to fewer cattle. Spring grazing would occur two years out of three, which could result in more compaction, but the seasonal freeze-thaw action would be expected to sufficiently counteract this compaction.

## **2. Vegetation Including Invasive Non-Native Species**

The majority of impacts to the vegetation resource in the Hill City Branch Allotment from Alternative 1 are centered on the needs of bluebunch wheatgrass. This grass species was selected because it is a key native forage species that is present within the allotment and is sensitive to defoliation associated with early season use and use during the majority of the active growing season. Utilization levels in excess of 40% have the potential to directly affect the plant's ability to maintain root growth and replace carbohydrate reserves resulting in reduced vigor. The permitted livestock grazing use level of key forage species during the growing season would continue to range between 55% and 60% of current annual production. The suppression of the root growth is generally proportional to the intensity and frequency of defoliation. This is especially true when bluebunch wheatgrass is grazed during the active growing season.

The size and distribution of heavily grazed use areas on the allotment are not expected to change under Alternative 1. The Hill City Branch Allotment is not expected to experience a measurable change in current overall livestock grazing use levels under this alternative. This action would likely maintain the principal components of the existing native plant community on the Hill City Branch Allotment.

## **3. Livestock Grazing**

Under this alternative, grazing management would not be affected. Livestock management would continue as summarized in the current permit and the description of Alternative 1.

## **4. Wildlife**

Impacts to wildlife from Alternative 1 would primarily be a result of seasonal or long term changes in plant community structure, seasonal dietary overlap and in some instances social or physical displacement. The dietary overlap between the kinds of livestock licensed in the Hill City Branch Allotment and the native wildlife species would be similar to what is presently

occurring. The localized heavy livestock use areas of vegetation under this alternative would remove a greater portion of the herbaceous material and seed sources produced on the site. This would reduce the amount of forage available to wildlife and alter the horizontal and vertical cover values for native wildlife species with relatively small territories. The continued longer grazing period would also increase the likelihood of physical alteration of the wildlife habitat values on the Hill City Branch Allotment.

#### **5. Threatened, Endangered and BLM Sensitive Species.**

Cattle grazing during the permitted use period would occur during sage-grouse nesting and early brood-rearing periods. This use period would result in continued, but limited, cattle use of native forbs preferred by sage-grouse than under the Proposed Action. The seasonal decrease in herbaceous cover values under Alternative 1 would increase the possibility of nest site predation and reduce concealment and security cover for young sage-grouse chicks when compared to the Proposed Action. The expected seasonal reduction in height and diversity of vegetation would also result in a greater reduction in the number and occurrence of insects, a key component in the diet of young sage-grouse chicks. Reducing plant species diversity and vigor in the native plant communities would produce fewer suitable habitat conditions for many of the Sensitive shrub steppe wildlife species expected to occur in the area. A forage utilization level that exceeds 40% would produce no improvement in stubble height of bluebunch wheatgrass at the end of the grazing period over current conditions. The higher level of use of key forage species during the active growing season under Alternative 1 would increase the rate of establishment and spread of big sagebrush.

#### **7. Cumulative Impacts under the No Action Alternative:**

Livestock grazing has occurred in the Hill City Branch Allotment since the implementation of the Taylor Grazing Act of 1934. The geographic scope of the No Action Alternative will be limited to just those 546 federal acres within the Hill City Branch Allotment. Based on past history and current data the BLM does not anticipate any foreseeable circumstances or events that would generate cumulative impacts in the Hill City Branch Allotment under the No Action Alternative.

A formal determination (attached) by the Shoshone Field Manager has been made for the Hill City Branch Allotment that shows that Standard 1—Watersheds and Standard 5—Seedings are currently being met as required by federal regulation CFR 4180. However, Standard 4—Native Plant Community and Standard 8—Threatened and Endangered Plants and Animals are not being met, but current livestock grazing is not a factor. The No Action Alternative analyzes the renewal of the grazing permit without the inclusion of the Grazing Management Objectives or Range Monitoring guidelines into the active allotment management. This alternative will have the same management that has been authorized in the Hill City Branch Allotment in the past. This would not result in meeting or making significant progress towards meeting Standards 4 and 8.

There are no range improvement projects being anticipated in the Hill City Branch Allotment at this time. The only reasonably foreseeable future action in the Hill City Branch Allotment is another permit renewal in 2018. Permit renewals are only issued for a term of ten years. Future

permit renewals would be reviewed at the appropriate time under existing regulations and if applicable, after the completion of another *Fundamentals of Rangeland Health* Assessment. In the future if changes are necessary, they will be made to ensure to conformance of current regulations.

## V. CONSULTATION AND COORDINATION

This EA has been prepared by the following Specialists at the Shoshone Field Office:

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Dean Brown	Range Technician
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Bonnie Hunt	Wildlife Biologist
John Kurtz	Outdoor Recreation Planner
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### References:

Anderson, Loren D. 1991. Bluebunch wheatgrass defoliation effects and recovery. Bureau of Land Management Technical Bulletin 91-2.

USDA, Natural Resources Conservation Service. 2001. (2001, May). Soil Quality Information Sheet, Rangeland Soil Quality -- Compaction. [online]. Located at: <http://soils.usda.gov/sqi/files/RSQIS4.pdf> [accessed January 13, 2006 by Julie Hilty].

U.S. Department of the Interior, Bureau of Land Management. 1979. Final Shoshone Environmental Statement. Document on file at the BLM, Shoshone Field Office, Shoshone, Idaho.

U.S. Department of the Interior, Bureau of Land Management. 1988. Opportunity and Challenge: The Story of the BLM. US Government Printing Office, Washington D.C.

### Attachments:

Appendix 1—Idaho Standards for Rangeland Health & Guidelines for Livestock Grazing Management

Hill City Branch Allotment Determination and Assessment Comments

Draft Finding of No Significant Impacts

## Appendix 1

### **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.

## Appendix 1 (Continued)

- 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.
  - d) 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.

Design management fences to minimize adverse impacts, such as habitat fragmentation, to maintain habitat integrity and connectivity for native plants and animals.

**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

Twin Falls District  
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**Hill City Branch Allotment  
Livestock Grazing Permit Renewal  
Environmental Assessment No. ID-230-2005-EA-1019**

Compiled by Dan Patten, Rangeland Management Specialist

<b>Reviewer</b>	<b>Discipline</b>	<b>Initial</b>	<b>Date</b>
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