

**UNITED STATES DEPARTMENT OF THE INTERIOR  
BLM, BOISE DISTRICT**

**EA #ID-130-05-012**

<b>Applicant (if any):</b> BLM Action		<b>Proposed Action:</b> Modify grazing management practices in Palmer grazing allotment to make progress towards meeting Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management Practices			<b>EA No.</b> ID-130-2007- EA-3339
<b>State:</b> Idaho	<b>County:</b> Owyhee	<b>District:</b> Boise	<b>Field Office:</b> Owyhee	<b>Authority:</b> NEPA, FLPMA, PRIA, Taylor Grazing Act	
<b>Prepared By :</b> OFO ID Team		<b>Title:</b> Interdisciplinary			<b>Report Date:</b> August 15, 2007

**LANDS INVOLVED**

<b>Meridian</b>	<b>Township</b>	<b>Range</b>	<b>Section(s)</b>	<b>Acres</b>
Boise	4S	6W	23, 24, 25, 26, 35	1,704

**CONSIDERATION OF CRITICAL ELEMENTS**

<b>Critical Elements</b>	<b>N/A or Not Present</b>	<b>Applicable or Present, No Impact</b>	<b>Discussed in EA</b>
Air Quality	✓		
Area of Critical Environmental Concern	✓		
Cultural Resources			✓
Environmental Justice (E.O. 12898)	✓		
Farm Lands (prime or unique)	✓		
Floodplain	✓		
Noxious Weeds, Invasive Species			✓
Migratory Birds			✓
Native American Religious Concerns		✓	
Threatened or Endangered Species			✓
Wastes, Hazardous Substances or Solid Wastes	✓		
Water Quality			✓
Wetlands and Riparian Zones			✓
Wild and Scenic Rivers (Eligible)	✓		
Wilderness Study Areas	✓		
Wild Horse Herd Management Areas	✓		

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**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT, BOISE DISTRICT**

**Environmental Assessment # ID-130-2007-EA-3339**

## **I. INTRODUCTION**

### **A. Purpose and Need**

The purpose of this environmental assessment is to analyze a range of alternatives that would make significant progress towards meeting the Idaho Standards for Rangeland Health (ISRH) and the Owyhee Resource Management Plan objectives through the adjustment of the livestock use period and permitted levels of use to be authorized through a new 10 year term permit associated with the Palmer Allotment (#0507).

The proposed action is needed to improve resource issues identified on the Palmer Allotment (#0507). The BLM Owyhee Field Office issued the final Rangeland Health Assessment and Determination for the Palmer allotment September 26, 2006. The following are summaries of the BLM Authorized Officer determinations.

- **Palmer** – Standards 1, 2, 3, 4 and 8 are not being met, and livestock management practices are a significant factor in the failure to meet these standards. Although invasive species and historic grazing practices are the primary cause of failure to meet standards, current livestock management is not allowing significant progress to be made towards meeting the Idaho Standards for Rangeland Health (ISRH). Standard 7 is being met on this allotment. Standards 5 and 6 do not apply to this allotment.

### **B. Conformance with Land Use Plan**

The Owyhee Resource Management Plan (RMP) was approved on December 30, 1999. This land use plan guides public land management, including the grazing management program, in the area where the subject allotments are located. The proposed action is in conformance with the Owyhee RMP, as required by 43 CFR 1610.5-3(a). Specifically, the proposed action is designed to achieve Objective LVST 1 (identified on page 23 of the ORMP), which is to provide for a sustained level of livestock use compatible with meeting other resource objectives. In addition, the proposed action is in conformance with other applicable RMP objectives for soils, water, vegetation, riparian/wetland, wildlife, special status species, recreation, visual resources, and cultural resources.

The alternatives in this environmental assessment are in conformance with the 1999 RMP/EIS. Copies of the RMP/EIS are available at the BLM Owyhee Field Office, and the document is also available for viewing and downloading on the BLM Idaho State Office Internet web site at <http://www.id.blm.gov>. The RMP/EIS broadly analyzes environmental issues relating to public land uses and resource allocations. Consistent with the provisions of 40 CFR 1502.20, the environmental analysis included in the RMP/EIS and this EA focuses on the environmental issues specific to re-issuing the livestock grazing permit for the Palmer Allotment.

## C. Relationship to Statutes, Regulations, or Other Plans

### 1. Standards and Guidelines

On August 12, 1997, the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management were approved by the Secretary of the Interior. Subsequently, livestock management practices must be in conformance with these standards and guidelines for rangeland health. The Standards and Guidelines Assessment and Determination for Palmer (0507) Allotment were completed September 26, 2006.

### 2. Federal Court Order

On March 31, 1999, the Honorable B. Lynn Winmill, Chief Judge, U.S. District Court, signed a Memorandum Decision and Order (Civil Case No. 97-0519-S-BLW) finding that BLM violated NEPA when 68 grazing permits were renewed in 1997. The decision did not impose a remedy to rectify the NEPA violation. However, on February 29, 2000 Judge Winmill signed a Memorandum Decision and Order (Civil Case No. 97-0519-S-BLW) directing the BLM to complete the review of the allotments associated with the 68 grazing permits that are under the new Owyhee Resource Management Plan and Environmental Impact Statement (RMP/EIS).

## D. Allotment and Permit Background

The Final Rangeland Health Standards and Guidelines Assessment and Evaluation and Determination for the Palmer (507) allotment were issued September 26, 2006.

The grazing permit for the Palmer allotment is currently held by Richard Bennett. The allotment is located west of Highway 95, approximately 5 miles northeast of Jordan Valley, Oregon in Owyhee County, Idaho. The allotment is part of the Cow Creek Core area, and lies to the west of Swisher Mountain. The Palmer allotment consists of 3 pastures that include Federal, State and private lands totaling approximately 3,023 acres (Table 1).

**Table 1: Palmer Allotment acreage\* by pasture and land ownership**

Pasture	Federal	State	Private	Total
1	729	0	299	1,028
2	748	0	340	1,088
3	267	640	0	906
<b>Totals</b>	<b>1,744</b>	<b>640</b>	<b>639</b>	<b>3,023</b>

\*Acreages represent best available estimates.

The 1999 Owyhee Resource Management Plan identifies the Palmer Allotment as an “M” (maintain) category allotment, with Active Permitted Use of 439 AUM’s. The allotment has been grazed by cattle since it was adjudicated in the 1930’s. Since 1964, the preference has been for 439 Animal Unit Months (AUM’s). The allotment has been managed under a 3-pasture deferred rotation grazing system since 1982.

Actual use records from 1985-2006 indicate that average actual use for the allotment has been 337 AUM's. Approximately equal amounts of use occur in each pasture. For the 22 year period from 1985-2006, actual use has averaged 113 AUM's in Pasture 1, 113 AUM's in Pasture 2, and 111 AUM's in Pasture 3 (Table 2). Each pasture has been used every year in the deferred-rotation system.

**Table 2.** Palmer Allotment Actual Use Records, 1985-2006.

YEAR	Pasture 1			Pasture 2			Pasture 3			Allotment
	ON DATE	OFF DATE	AUMs	ON DATE	OFF DATE	AUMs	ON DATE	OFF DATE	AUMs	Total AUM's
1985	8/04	10/12	123	4/16	6/22	143	6/23	08/03	123	389
1986	6/23	8/05	140	8/06	10/13	137	4/16	6/22	147	424
1987	4/16	6/20	151	6/21	8/05	153	8/06	10/02	125	429
1988	8/17	10/15	93	4/16	6/26	124	6/27	8/16	79	296
1989	6/23	8/14	113	8/15	10/15	132	4/16	6/22	138	384
1990	4/15	6/23	119	6/24	8/15	81	8/16	10/15	93	293
1991	8/16	10/15	91	4/15	6/20	100	6/21	8/15	83	274
1992	6/30	8/18	78	8/19	10/15	91	4/16	6/29	120	289
1993	4/16	6/28	120	6/28	8/05	62	8/06	10/15	108	290
1994	8/09	10/15	112	4/16	6/22	112	6/23	8/08	77	301
1995	6/23	8/05	74	8/06	10/15	119	4/16	6/22	123	316
1996	4/16	6/22	138	6/23	8/05	80	8/06	10/05	111	329
1997	8/07	10/10	129	4/16	6/21	128	6/22	8/06	91	348
1998	5/08	6/30	151	7/01	8/15	129	4/01	5/07	79	359
1999	4/01	5/05	103	5/06	6/30	164	7/01	8/15	135	402
2000	7/01	8/05	88	4/01	5/05	85	5/06	6/30	137	310
2001	6/01	7/05	93	7/6	8/6	85	4/01	5/30	160	338
2002	4/1	5/15	119	5/16	7/9	155	7/10	8/15	106	380
2003	7/1	8/15	132	4/15	5/15	74	5/16	6/30	132	338
2004	5/16	6/30	131	7/1	8/15	131	4/1	5/15	126	388
2005	4/1	5/15	87	5/16	6/30	89	7/1	8/15	89	265
2006	5/16	6/30	105	4/20	5/15	60	7/1	8/15	105	270
<b>Average AUM's</b>	<b>113</b>			<b>111</b>			<b>113</b>			<b>337</b>

## II. DESCRIPTION OF THE ALTERNATIVES

### A. Alternative – Continuation of Current Management

Alternative A, analyzed in this Environmental Assessment (EA) represents a continuation of the current management on the Palmer allotment, and is summarized in Table 3.

#### Permitted Use

The livestock grazing permit associated with the Palmer allotment would be reissued for a term of ten years and would expire on February 28, 2017. Grazing permit mandatory terms and condition are outlined as follows:

Table 3. Livestock Use for Palmer Allotment (0507)

Operator Name, Number	Livestock		Season of Use	Federal Land	AUMs		
	Num.	Kind			Active	Suspended	Permitted <sup>1</sup>
Richard Bennett (1101387)	126	Cattle	4/16-10/15	58%	439	0	439

<sup>1</sup> Permitted AUMs reflect the total active and suspended AUMs.

### Terms and Conditions

The following terms and conditions would apply to the grazing permit for this allotment:

1. Livestock turnout dates are subject to Boise District Range Readiness Criteria (Appendix A).
2. You are required to properly complete, sign and date an Actual Grazing Use Report Form (BLM Form 4130-5) annually for each allotment. The completed form(s) must be submitted to this office within 15 days from the last day of your authorized annual grazing use.
3. Supplemental feeding is limited to salt, mineral, and/or protein in block, granular, or liquid form. If used, these supplements must be placed at least one-quarter (1/4) mile away from any riparian area, spring, stream, meadow, aspen stand, sensitive plant species, playa, or water development.
4. Pursuant to 43 CFR 10.4(b), you must notify the BLM Field Manager, by telephone with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2) on federal lands. Pursuant to 43 CFR 10.4(c), you must immediately stop any ongoing activities connected with such discovery and make a reasonable effort to protect the discovered remains or objects.

### Grazing Management

The Palmer allotment would be grazed in a 3-pasture deferred rotation (Table 4, Map 1). This pasture rotation was first implemented in accordance with a Final Decision issued May 12, 1982.

Table 4: Alternative A - Grazing Schedule for Palmer Allotment

Pasture	Year 1	Year 2	Year 3	Year 4
1	4/16-6/22	8/6-10/15	6/23-8/5	Repeat Cycle with Year 1
2	6/23-8/5	4/16-6/22	8/6-10/15	
3	8/6-10/15	6/23-8/5	4/16-6/22	

### Annual Management Indicators

Listed below are measurable annual management indicators that would assist in complying with Guidelines for Livestock Grazing Management. Adherence to these management indicators along with the prescribed grazing management practices will make significant progress towards meeting the Standards for Rangeland Health and land use plan objectives.

1. Upland utilization of key perennial grass species should not exceed 50%, as measured at

the end of the grazing period.

2. Browse use of riparian shrubs, including but not limited to willows, should be limited to an incidence of use not to exceed 25 percent on young woody plants less than three (3) feet in height as measured at riparian key areas.
3. Streambank alteration attributable to livestock grazing (pugging, shearing, trails, trampling) should be less than ten (10) percent as measured at key riparian areas.
4. Stubble height of riparian species along the greenline on Palmer Creek should be a minimum of 4” at the end of the growing season.
5. In deer winter range, utilization of bitterbrush or other key browse species should not exceed 30 percent of annual leaders browsed. In all other deer habitat, utilization should not exceed 50 percent of annual leaders browsed.

**Monitoring**

Monitoring would occur at key areas within the allotment in a 5-year cycle or as described in the grazing management indicators above. Monitoring at each key area would include: nested plot frequency, photo plots, shrub browse, and herbaceous key species utilization. Monitoring would be conducted in accordance with established methods (USDI 1998).

**Adaptive Management**

The stocking rate on the Palmer Allotment may be adjusted if utilization levels, as measured by the Key Species method, at the end of the growing season, indicate that utilization of key perennial grass species exceeds 50%, as specified in the Owyhee RMP (1999). Utilization would be measured according to established methods (USDI 1996).

**Rangeland Management Projects**

No rangeland management projects are proposed under this alternative.

**B. Alternative - Permittee Proposal**

This alternative represents the proposal formulated in consultation with BLM, and submitted by the current grazing permittee, Richard Bennett. This alternative has been modified by subsequent revisions submitted by Chad Gibson, in consultation with the permittee.

**Permitted Use**

Under this alternative, active permitted use would be 439 AUMs (Table 5). Mandatory grazing terms and conditions would be as shown in Table 5.

**Table 5.** Proposed Permitted Use – Alternative B.

Permittee Name/Number	Livestock		Season of Use	Federal Land	AUMs		
	Num.	Kind			Active	Suspended	Permitted
Bennett/ 1101387	127	C	3/18-9/14	58%	439	0	439

**Terms and Conditions**

The following terms and conditions would apply to the grazing permit for this allotment:

1. Livestock turnout dates are subject to Boise District Range Readiness Criteria (Appendix A).
2. You are required to properly complete, sign and date an Actual Grazing Use Report Form (BLM Form 4130-5) annually for each allotment. The completed form(s) must be submitted to this office within 15 days from the last day of your authorized annual grazing use.
3. Supplemental feeding is limited to salt, mineral, and/or protein in block, granular, or liquid form. If used, these supplements must be placed at least one-quarter (1/4) mile away from any riparian area, spring, stream, meadow, aspen stand, sensitive plant species, playa, or water development.
4. Pursuant to 43 CFR 10.4(b), you must notify the BLM Field Manager, by telephone with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2) on federal lands. Pursuant to 43 CFR 10.4(c), you must immediately stop any ongoing activities connected with such discovery and make a reasonable effort to protect the discovered remains or objects.

## Grazing Management

Under Alternative B, a fence would be constructed to divide Pasture 1 into a lower (Pasture 1A) and upper (Pasture 1B) pasture. Prior to construction of the fence in Pasture 1, the grazing rotation would be followed as depicted in Table 6.

**Table 6. Interim Pasture Use Rotation**

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Pasture 1</b>	4/15-5/31	4/15-5/31	6/1-7/7
<b>Pasture 2</b>	7/8-8/15	6/1-7/7	7/8-10/15
<b>Pasture 3</b>	6/1-7/7	7/8-8/15	4/15-5/31

The permitted season of use would be from March 15 through October 15. However, turnout would typically occur in early to mid-April, following Boise District Range Readiness Criteria. The modified season of use would allow a March 15 turnout when Boise District Range Readiness Criteria are met. Pasture 1 would be used early for 2 consecutive years, and grazed during June in 1 of 3 years. Pasture 2 would be used in the summer, or deferred until after seed-ripe<sup>1</sup>, and not used in the spring. Pasture 3 would be used during all seasons, and deferred until after seed-ripe in 1 of 3 years.

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<sup>1</sup> For the purpose of this document seed-ripe is defined as: when the majority of seed on key perennial grasses is between the "stiff dough" stage, and the "shattering" stage. The "stiff dough" stage is identified when seed is hard enough to resist crushing between thumb and forefinger; the thumbnail must be used to break the seed coat at this stage. The "shattering" stage is identified by seed that falls easily from the seedstalk when the grass plant is disturbed or gently shaken. Culms and awns generally have a "straw" appearance and minimal green tissue when seed-ripe is achieved.

After fencing is constructed to create pastures 1A and 1B, annual grazing use would be implemented as described in Table 7.

**Table 7. Palmer Allotment Adaptive Management and Grazing Treatment Guidelines.**

Pasture(s)	Treatment	Description
<b>1A</b>	Early Riparian Grazing Use	<u>Pasture 1A</u> may be grazed annually at the beginning of the grazing season and at a minimum will be grazed early (prior to June 15) 3 years in 5.
<b>1B, 2 &amp; 3</b>	Upland Deferred Grazing Use	Each of Pastures 1B, 2 and 3 will receive a deferred grazing treatment beginning grazing after July 7 or after the critical growth period at least two years in each five year cycle. The pastures may be used any time during the grazing season in order to schedule grazing treatments among pastures.
<b>2</b>	Early Spring Upland Grazing Use	In addition to the schedule of deferred grazing treatments, <u>Pasture 2</u> would not be used early (prior to May 15) more than one year in five.

**General Guidelines:**

- All grazing use would occur between April 1 and August 31 unless a change is approved by the BLM’s authorized officer; a change of 14 days may be authorized at either end of the grazing season.
- The amount of grazing will not exceed the active preference of 439 AUMs.
- The Permittee would be allowed to schedule fewer than 439 AUMs, alter the number of livestock turned into the allotment, determine the season and duration of grazing use in each pasture and otherwise provide for management of livestock to assure that grazing treatments occur as described.
- The Permittee agrees to utilize private land outside of the allotment as may be necessary to facilitate the above grazing treatment schedule.
- Management practices would be planned and implemented with the intent of assuring that the 50% key forage species and bitterbrush utilization standards established in the Owyhee Resource Management Plan (1999) are not exceeded.
- Management practices would be planned and implemented with the intent that the grazing effects will remain within the parameters of the annual management indicators.
- Turnout may occur as early as March 18 when annual conditions allow. In these years, livestock would be removed from the allotment by August 15. In years when turnout occurs after April 15, livestock may remain on the allotment as late as September 14 as long as total AUMs and specified utilization levels are not exceeded.

**Flexibility in Livestock Management**

Livestock numbers may vary annually with prior approval from the BLM Authorized Officer, as long as total active AUMs are not exceeded, and utilization guidelines are met. Actual grazing use will not exceed the authorized season of use and active AUMs, and should not exceed the maximum utilization levels identified under the grazing Annual Management Indicators included under this alternative. When necessary, livestock would be removed from the allotment and held on adjacent private lands for a short time in order to achieve the grazing prescriptions described in Table 2.

**Annual Management Indicators**

Listed below are measurable annual management indicators that will assist in complying with Guidelines for Livestock Grazing Management. Adherence to these management indicators, along with the prescribed grazing management practices, will make significant progress towards meeting the Standards for Rangeland Health and land use plan objectives.

1. Upland utilization of key perennial grass species should not exceed 50% measured at the end of the grazing period.
2. Browse use of riparian shrubs, including but not limited to willows, should be limited to “light” use as identified in Idaho Technical Reference 2005-02 Monitoring Streambanks and Riparian Vegetation – Multiple Indicators Version 2.0 (2006).
3. Streambank alteration attributable to livestock grazing (pugging, shearing, trails, trampling) should be less than ten (10) percent as measured at key riparian areas<sup>2</sup>.
4. Stubble height of riparian species along the greenline on Palmer Creek should be a minimum of 4” at the end of the growing season<sup>2</sup>.
5. In deer winter range, utilization of bitterbrush or other key browse species should not exceed 30 percent of annual leaders browsed. In all other deer habitat, utilization should not exceed 50 percent of annual leaders browsed.

### **Monitoring and Use Supervision**

Monitoring would consist of data collection at established Nested Plot Frequency Transect study sites on approximately a 5-year monitoring interval. Monitoring on the allotment will be evaluated to determine whether additional trend sites are needed. In addition, utilization monitoring would be conducted in each of the 3 pastures. BLM would work cooperatively with the grazing permittee to ensure proper utilization levels are not exceeded, and that minimum stubble heights along Palmer Creek are met at the end of the growing season. Riparian monitoring would consist of periodic PFC assessments on springs and streams. If determined to be necessary, additional riparian monitoring may be conducted in accordance with established Multiple Indicator Monitoring procedures.

### **Adaptive Management**

The stocking rate on the Palmer Allotment may be adjusted if utilization levels, as measured by the Key Species method, at the end of the growing season, indicate that utilization of key perennial grass species exceeds 50%, as specified in the Owyhee RMP (1999).

### **Rangeland Management Projects**

Pending completion of field investigations for all necessary clearances, the following projects are identified for construction or modification in the Palmer Allotment (Map 2). The BLM would conduct resource inventories prior to fence construction and removal on federal land, and would be responsible for construction of the proposed improvements. Maintenance would be the

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<sup>2</sup> Streambank alteration and stubble height indicator criteria may be altered following monitoring, in order to insure that these criteria are appropriate to facilitate livestock management practices that will result in significant progress towards meeting the ISRH for riparian areas, stream channels, and floodplains (Interagency Technical Reference TR 1737-20, 2006).

responsibility of the permittee. All projects on public lands would be constructed and maintained to conform to BLM design specifications and Cooperative Agreements. Applicable mitigation measures would be integrated into the construction of the rangeland management projects on BLM lands.

**Palmer Creek Spring Development** – Construct a 2-acre enclosure around the spring and wet meadow area in Section 23 on Palmer Creek in Pasture 1. If it is determined to be an adequate water supply, develop the spring with a headbox and pipeline (approximately 800 feet in length) to carry the water to two troughs at a minimum of 150 feet away from the spring and creek area for livestock use in Pastures 1A and 1B.

**Pasture 1 Division Fence** – Construct approximately 0.9 miles of 3-strand fence with the bottom strand being smooth wire set a minimum of 18” from the ground, which will divide Pasture 1 into a lower-elevation riparian pasture (1A) and an upper pasture (1B). The northern section would require off-road travel for survey, design, and construction; all off-road travel would be kept to a minimum and would require prior approval by the Authorized Officer. The fence would be constructed according to BLM standards.

**Long Draw Spring Development** – This project was proposed by the permittee, but a field inspection revealed that the current water supply is inadequate for development and will not be pursued further at this time. Therefore, this project will not be analyzed in this document.

### C. Alternative – AUM Suspension

#### *Permitted Use*

Under this alternative 24% of the current active preference would be placed in suspension. Mandatory grazing terms and conditions would be as shown in Table 8. The proposed stocking rate of 5.2 acres/AUM is consistent with the stocking rate on the adjacent Baxter Basin allotment, which was found to be meeting or making progress towards meeting each of the ISRH in 2006, and supports similar ecological communities. This stocking rate would result in an Active Preference of 338 AUM’s, which is equivalent to the average amount of actual use reported by the permittee over the past 22 years.

**Table 8.** Alternative C Mandatory Terms and Conditions

Permittee Name/Number	Livestock		Season of Use	Federal Land	AUMs		
	Num.	Kind			Active	Suspended	Permitted
Bennett /1101387	105	C	4/1-9/15	58%	337	102	439

#### **Terms and Conditions**

The following terms and conditions would apply to the grazing permit for this allotment:

1. Livestock turnout dates are subject to Boise District Range Readiness Criteria (Appendix A).
2. You are required to properly complete, sign and date an Actual Grazing Use Report Form (BLM Form 4130-5) annually for each allotment. The completed form(s) must be submitted to this office within 15 days from the last day of your authorized annual grazing use.

3. Supplemental feeding is limited to salt, mineral, and/or protein in block, granular, or liquid form. If used, these supplements must be placed at least one-quarter (1/4) mile away from any riparian area, spring, stream, meadow, aspen stand, sensitive plant species, playa, or water development.
4. Pursuant to 43 CFR 10.4(b), you must notify the BLM Field Manager, by telephone with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2) on federal lands. Pursuant to 43 CFR 10.4(c), you must immediately stop any ongoing activities connected with such discovery and make a reasonable effort to protect the discovered remains or objects.

***Grazing Management***

Under this alternative, Active preference would be reduced from 439 AUM’s to 338 AUM’s. The reduction in Active preference would be implemented over a 5-year period as follows:

- 2007: 439 AUM’s
- 2008: 414 AUM’s
- 2009: 388 AUM’s
- 2010: 362 AUM’s
- 2011: 338 AUM’s

Deferment of use under this alternative would be defined as grazing after July 15. Pasture 1 would be split into lower (Pasture 1A) and upper (Pasture 1B) pastures (See Map 2).

Prior to construction of the Pasture 1 Division Fence, a grazing rotation would be followed as depicted in Table 9.

<b>Table 9. Interim Pasture Use Rotation</b>			
	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Pasture 1</b>	4/15-5/31	4/15-5/31	6/1-7/14
<b>Pasture 2</b>	6/1-7/14	7/15-9/15	7/15-9/6
<b>Pasture 3</b>	7/15-8/31	6/10-7/14	4/20-5/30

The permitted season of use would be from April 1 through September 15. Turnout would typically occur in early to mid-April, following Boise District Range Readiness Criteria. Use in Pasture 1 would occur in the spring and summer, Pasture 2 would be used in the summer or deferred until after seed-ripe. Pasture 3 would be used during the spring and summer, and deferred until after seed-ripe in 1 of 3 years.

After fencing is constructed to create pastures 1A and 1B, annual grazing use would be implemented as described in Table 10.

In order to schedule grazing treatments among the pastures, livestock turnout dates would vary from April 1 to April 10. In years when turnout occurs on or near April 1, livestock would typically be removed from the allotment by August 25. In years when turnout occurs on April

10, livestock would typically be removed from the allotment by September 10. The stocking rate would be approximately 5 acres per AUM in pastures 1A, 1B and 2. The stocking rate in Pasture 3, which is 70% State land, would be approximately 6.4 acres per AUM, which is equivalent to the stocking rate set for the State lands in Pasture 3.

**Table 10.** Palmer Allotment Grazing Rotation (Alternative C).

Pasture	Year 1	Year 2	Year 3
<b>1A</b>	4/1-4/18	4/10-4/27	4/10-4/27
<b>1B</b>	4/19-5/22*	4/28-5/31	6/3-7/6*
<b>2</b>	6/1-7/20	7/15-9/10	7/15-9/6
<b>3</b>	7/21-8/25	6/1-7/6*	4/28-6/2

\*Where gaps appear in pasture use dates, the permittee would be expected to remove livestock to adjacent state or private lands in accordance with the specified use dates for public lands in the Palmer allotment, unless livestock numbers are adjusted so that permitted AUM's are not exceeded. Livestock may be turned into Pasture 2 as early as July 5 in Year 2 and Year 3 if field inspection shows that key perennial grasses have reached seed-ripe, as defined in this document.

**Flexibility in Livestock Management:** Livestock numbers may vary annually with prior approval from the BLM Authorized Officer, as long as total active AUMs are not exceeded, and utilization guidelines are met. Actual grazing use will remain within the authorized season of use and active AUMs, and will not exceed the maximum utilization levels identified under the grazing Management Guidelines included under this alternative. Pasture use flexibility would be authorized allowing five days before and five days after the annually scheduled pasture move dates, provided pastures are cleared of cattle within the five days following the scheduled pasture move date.

Flexibility in use dates of pastures will allow the livestock management to be adapted to the phenology of forage species in order to meet the specified grazing prescription. When necessary, livestock would be removed from public lands and held in an alternative pasture in accordance with the grazing prescriptions described in Table 10. Livestock may be moved into the “deferred” pasture as early as July 5 if it is determined that key perennial grass species have attained seed-ripe (as defined in this document). If AUM's and annual management indicators are not exceeded, the last pasture in the annual rotation may be grazed as late as September 15.

### **Annual Management Indicators**

Listed below are measurable annual management indicators, which assist in complying with the Guidelines for Livestock Grazing Management. Adherence to these management indicators along with the prescribed grazing management practices would make significant progress towards meeting the Standards for Rangeland Health and land use plan objectives.

1. Upland utilization of key perennial grass species should not exceed 40% in spring and summer use pastures (4/15-7/14), and 50% in deferred (7/15-8/31) use pastures, as measured at the end of the grazing period (Owyhee RMP, 24).
2. Browse use of riparian shrubs, including but not limited to willows, should be limited to “light” (20-40%) use on young woody plants less than three (3) feet in height as

measured at riparian key areas (Monitoring Streambanks and Riparian Vegetation – Multiple Indicators. Technical Bulletin 2005-02 v 2.0, May 2006).

3. Streambank alteration attributable to livestock grazing (pugging, shearing, trails, trampling) should be less than ten (10) percent as measured at key riparian areas<sup>3</sup>.
4. Stubble height of herbaceous riparian species along the greenline on Palmer Creek should be a minimum of 4” at the end of the growing season<sup>3</sup>.
5. In deer winter range, utilization of bitterbrush or other key browse species should not exceed 30 percent of annual leaders browsed. In all other deer habitat, utilization should not exceed 50 percent of annual leaders browsed (Owyhee RMP, 16).

**Monitoring and Use Supervision:** Monitoring would consist of data collection at established Nested Plot Frequency Transect study sites on an approximately 5-year monitoring interval. The need for additional monitoring sites will be evaluated, and coordinated with the livestock permittee to represent key use areas. The existing NPFT site in Pasture 1 would be evaluated to determine the effects of the proposed fence, and whether monitoring data collected at the site would continue to be representative following construction of the fence. If the site is no longer suitable, a new NPFT site would be established to replace it. An additional NPFT site would be established in Pasture 1A. In addition, upland and riparian utilization and riparian stubble height monitoring would be conducted in each of the 3 pastures on an approximately 3-year interval. BLM and the grazing permittee would work cooperatively to ensure proper utilization levels, as identified under Annual Management Indicators are not exceeded. Riparian monitoring would consist of establishment and periodic monitoring of a Multiple Indicator Monitoring (MIM) site along Palmer Creek. In addition, periodic PFC assessments would be conducted on springs and streams on the allotment. Additional riparian monitoring may be conducted if it is determined to be necessary, in accordance with established Multiple Indicator Monitoring procedures or other BLM accepted protocols.

### **Adaptive Management**

The stocking rate on the Palmer Allotment may be adjusted if utilization levels, as measured by the Key Species method, at the end of the growing season, indicate that utilization of key perennial grass species exceeds 40% in spring and summer use pastures, or 50% in “deferred” pastures, as specified in the Owyhee RMP (1999).

**Rangeland Management Projects:** After completion of field investigations for all required clearances, the following projects are identified for construction or modification in the Palmer Allotment (Map 2). The BLM would conduct resource inventories prior to fence construction or removal on public land and permittees would provide for the maintenance of all range management projects. All projects on public lands would be constructed and maintained to conform to BLM design specifications and Cooperative Agreements. Applicable mitigation

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<sup>3</sup> Streambank alteration and stubble height indicator criteria may be altered following monitoring, in order to insure that these criteria are appropriate to facilitate livestock management practices that will result in significant progress towards meeting the ISRH for riparian areas, stream channels, and floodplains (Interagency Technical Reference TR 1737-20, 2006).

measures would be integrated into the construction of the rangeland management projects on BLM lands.

**Palmer Creek Spring Development:** Construct a 2-acre enclosure around the spring and wet meadow area in Section 23 on Palmer Creek in Pasture 1 (Map 2). If it is determined to be an adequate water supply, develop the spring with a headbox and pipeline (approximately 800 feet in length) to carry the water to two troughs at a minimum of 150 feet away from the spring and creek area for livestock use in Pastures 1A and 1B.

**Pasture 1 Division Fence:** Construct approximately 0.9 miles of 3-strand fence (with a smooth bottom wire set a minimum of 18” from the ground), which will divide Pasture 1 into a lower-elevation riparian pasture (1A) and an upper pasture (1B). The northern section would require off-road travel for survey, design, and construction, all off-road travel would be kept to a minimum and requires prior approval by the Authorized Officer. The fence would be constructed according to BLM standards.

**Other Project Proposals**

Seral and Immature Juniper Removal (Pastures 1 and 2) – In order to maintain Wyoming big sagebrush communities, younger junipers (conical growth form) would be removed in pastures 1B and 2 of the Palmer Allotment. Older junipers (those with rounded tops and those occurring in rocky outcrops) would not be removed. Junipers would be cut at ground level. Limbs from trees taller than 8 feet would be lopped and scattered. Motorized vehicle use to access junipers for treatment would be restricted to existing roads (Map 4). The treatment area would involve approximately 1,000 acres of public lands on the Palmer Allotment. This action is in conformance with the 1999 Owyhee Resource Management Plan (RMP), Objectives VEGE-1 (page 13) and FIRE-3 (page 27). Objective VEGE-1 is to “improve unsatisfactory and maintain satisfactory vegetation health/condition in all areas.” Management actions identified in the RMP under objective VEGE-1 include use of prescribed burning, mechanical and chemical treatments in sagebrush and western juniper habitats where it is determined that these practices would improve rangeland health and increase native plant biodiversity. The Palmer Allotment is within the Owyhee Front Fire Management Unit (FMU). The September 2005 Southwestern Idaho Fire Planning Unit Fire Management Plan (FMP) ranks Owyhee Front FMU as a moderate priority for fuels treatments, with a #1 priority to maintain salt desert and sagebrush-steppe communities. Recommended objectives and strategies identified for this FMU include mechanical treatment of seral juniper on 2,500 acres (page 148). At trend sites within the treatment area, juniper density would be measured during nested plot frequency monitoring.

**D. Alternative: Adaptive Management**

**Permitted Use**

Under this alternative grazing would be authorized at current levels, with the season of use from April 1 through August 30. Mandatory grazing terms and conditions would be as shown in Table 11.

**Table 11.** Alternative C Mandatory Terms and Conditions

Permittee	Livestock	Season	Federal	AUMs
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	<b>Num.</b>	<b>Kind</b>			<b>Active</b>	<b>Suspended</b>	<b>Permitted</b>
Bennett /1101387	150	C	4/1-8/31	58%	439	0	439

**Terms and Conditions**

The following terms and conditions would apply to the grazing permit for this allotment:

1. Livestock turnout dates are subject to Boise District Range Readiness Criteria (Appendix A).
2. You are required to properly complete, sign and date an Actual Grazing Use Report Form (BLM Form 4130-5) annually for each allotment. The completed form(s) must be submitted to this office within 15 days from the last day of your authorized annual grazing use.
3. Supplemental feeding is limited to salt, mineral, and/or protein in block, granular, or liquid form. If used, these supplements must be placed at least one-quarter (1/4) mile away from any riparian area, spring, stream, meadow, aspen stand, sensitive plant species, playa, or water development.
4. Pursuant to 43 CFR 10.4(b), you must notify the BLM Field Manager, by telephone with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2) on federal lands. Pursuant to 43 CFR 10.4(c), you must immediately stop any ongoing activities connected with such discovery and make a reasonable effort to protect the discovered remains or objects.

**Grazing Management**

Under this alternative, Active preference would be 439 AUM’s. The season of use would be from April 1 through August 31. Livestock would typically be turned out on April 15 following Boise District Range Readiness criteria (Appendix A). However, turnout may occur as early as April 1 when annual climatic and forage conditions allow. Livestock would typically be removed from the allotment around August 15, though they may be removed as late as August 31 as long as utilization levels and permitted AUMs are not exceeded.

Deferment of use under this alternative would be defined as grazing after July 15. A modified deferred-rotation system would be implemented as depicted in Table 12.

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Pasture 1</b>	4/15-5/31	4/15-5/31	6/1-7/14
<b>Pasture 2</b>	6/1-7/14	7/15*-8/31	7/15*-8/31
<b>Pasture 3</b>	7/15*-8/31	6/1-7/14	4/15-5/31

Livestock may be turned into “deferred” pastures as early as July 5 if field inspection shows that key perennial grasses have reached seed-ripe, as defined in this document.

Use in Pasture 1 would occur in the spring and summer, Pasture 2 would be used in the summer, and deferred until after seed-ripe in 2 of 3 years. Pasture 3 would be used during the spring and summer, and deferred until after seed-ripe in 1 of 3 years.

**Flexibility in Livestock Management:** Livestock numbers may vary annually with prior approval from the BLM Authorized Officer, as long as total active AUMs are not exceeded, and utilization guidelines are met. Actual grazing use will remain within the authorized season of use and active AUMs, and will not exceed the maximum utilization levels identified under the Annual Management Indicators included under this alternative. Pasture use flexibility would be authorized allowing five days before and five days after the annually scheduled pasture move dates, provided pastures are cleared of cattle within the five days following the scheduled pasture move date. Over the past 22 years, Active permitted use on the allotment has been 439 AUM's, but actual use has averaged 337 AUM's. It is expected that under this alternative, actual use would continue to fluctuate with annual climatic and forage conditions, and that average actual use would be similar to past use levels.

Flexibility in use dates of pastures will allow the livestock management to be adapted to the phenology of forage species in order to meet the specified grazing prescription. Livestock may be moved into the “deferred” pasture as early as July 5 if it is determined that key perennial grass species have attained seed-ripe (as defined in this document).

### **Annual Management Indicators**

Listed below are measurable annual management indicators, which assist in complying with the Guidelines for Livestock Grazing Management. Adherence to these management indicators along with the prescribed grazing management practices would make significant progress towards meeting the Standards for Rangeland Health and land use plan objectives.

1. Upland utilization of key perennial grass species should not exceed 40% in spring and summer use pastures (4/15-7/14), and 50% in deferred (7/15-8/31) use pastures, as measured at the end of the grazing period (Owyhee RMP, 24).
2. Browse use of riparian shrubs, including but not limited to willows, should be limited to “light” (20-40%) use on young woody plants less than three (3) feet in height as measured at riparian key areas (Monitoring Streambanks and Riparian Vegetation – Multiple Indicators. Technical Bulletin 2005-02 v 2.0, May 2006).
3. Streambank alteration attributable to livestock grazing (pugging, shearing, trails, trampling) should be less than ten (10) percent as measured at key riparian areas<sup>4</sup>.
4. Stubble height of herbaceous riparian species along the greenline on Palmer Creek should be a minimum of 4” at the end of the growing season<sup>4</sup>.
5. In deer winter range, utilization of bitterbrush or other key browse species should not exceed 30 percent of annual leaders browsed. In all other deer habitat, utilization should not exceed 50 percent of annual leaders browsed (Owyhee RMP, 16).

### **Monitoring and Use Supervision**

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<sup>4</sup> Streambank alteration and stubble height indicator criteria may be altered following monitoring, in order to insure that these criteria are appropriate to facilitate livestock management practices that will result in significant progress towards meeting the ISRH for riparian areas, stream channels, and floodplains (Interagency Technical Reference TR 1737-20, 2006).

Monitoring would consist of data collection at established Nested Plot Frequency Transect study sites on an approximately 5-year monitoring interval. The need for additional monitoring sites will be evaluated, in coordination with the permittee, to adequately represent key use areas. The existing nested plot frequency site in Pasture 1 will be evaluated to determine the effects of the proposed fence, and whether monitoring data collected at the site would continue to be representative if the Pasture 1 division fence is constructed. If the site is no longer suitable, a new NPFT site would be established to replace it. An additional NPFT site would be established in Pasture 1A.

BLM and the grazing permittee would work cooperatively to ensure proper seasonal utilization levels of key forage species, as identified under Annual Management Indicators, are not exceeded. In addition, upland and riparian utilization and riparian stubble height monitoring would be conducted in each of the 3 pastures yearly for the first three years following implementation of this alternative, and on an approximately 3-year interval thereafter, at the end of the growing season. Riparian monitoring would consist of establishment and periodic monitoring of a Multiple Indicator Monitoring (MIM) site along Palmer Creek. In addition, periodic PFC assessments would be conducted on springs and streams on the allotment. Additional riparian monitoring may be conducted if it is determined to be necessary, in accordance with established Multiple Indicator Monitoring procedures or other BLM accepted protocols.

**Rangeland Management Projects:** Pending completion of field investigations for all required clearances, the following projects are identified for construction or modification in the Palmer Allotment (Map 3). The BLM would conduct resource inventories prior to fence construction or removal on public land and permittees would provide for the maintenance of all range management projects. All projects on public lands would be constructed and maintained to conform to BLM design specifications and Cooperative Agreements. Applicable mitigation measures would be integrated into the construction of the rangeland management projects on BLM lands.

***Palmer Creek Spring Development:*** Construct a 2 acre enclosure around the spring and wet meadow area in Section 23 on Palmer Creek in Pasture 1 (Map 3). If it is determined to be an adequate water supply, develop the spring with a headbox and pipeline (approximately 800 feet in length) to carry the water to two troughs at a minimum of 150 feet away from the spring and creek area for livestock use in Pastures 1A and 1B.

***Pasture 1 Division Fence:*** This fence would only be constructed if monitoring data indicate that it is needed to meet the Idaho Standards for Rangeland Health and to conform with Guidelines for Livestock Grazing Management. Construct approximately 0.9 miles of 3-strand fence (with a smooth bottom wire set a minimum of 18" from the ground), which will divide Pasture 1 into a lower-elevation riparian pasture (1A) and an upper pasture (1B). The northern section would require off-road travel for survey, design, and construction. All off-road travel would be kept to a minimum and requires prior approval by the Authorized Officer. The fence would be constructed according to BLM standards.

## Adaptive Management:

If utilization measurements (at the end of the growing season) indicate that utilization levels of 40% in spring and summer (4/1-7/14) use pastures, and 50% in deferred (7/15-8/31) pastures are exceeded, the authorized officer could adjust the stocking rate. Construction of the Pasture 1 division fence will first be considered if specified utilization levels are exceeded, prior to adjusting the stocking rate on the allotment.

If monitoring indicates that the modified season of use in Pasture 1 is not adequate to allow significant progress towards meeting ISRH Standards 2 and 3, or if upland range condition is impacted, this pasture may be split to form a riparian pasture (1A) and an upland pasture (1B) in order to increase flexibility of grazing rotations, and to decrease the length of the grazing period along Palmer Creek. Following construction of the pasture division fence, the following grazing rotation would be applied:

Pasture	Year 1	Year 2	Year 3
1A	6/1-6/15	4/15-4/30	4/15-4/30
1B	6/16-7/14	5/1-5/31	5/1-5/30
2	7/15*-8/31	7/15*-8/31	6/1-7/14
3	4/15-5/31	6/1-7/14	7/15*-8/31

\*Livestock may be turned into “deferred” pastures as early as July 5 if field inspection shows that key perennial grasses have reached seed-ripe, as defined in this document.

## Other Project Proposals

Seral and Immature Juniper Removal (Pastures 1 and 2) – In order to maintain Wyoming big sagebrush communities, younger junipers (conical growth form) would be removed in pastures 1B and 2 of the Palmer Allotment. Older junipers (those with rounded tops and those occurring in rocky outcrops) would not be removed. Junipers would be cut at ground level. Limbs from trees taller than 8 feet would be lopped and scattered. Motorized vehicle use to access junipers for treatment would be restricted to existing roads (Map 3). The treatment area would involve approximately 1,000 acres of public lands on the Palmer Allotment. This action is in conformance with the 1999 Owyhee Resource Management Plan (RMP), Objectives VEGE-1 (page 13) and FIRE-3 (page 27). Objective VEGE-1 is to “improve unsatisfactory and maintain satisfactory vegetation health/condition in all areas.” Management actions identified in the RMP under objective VEGE-1 include use of prescribed burning, mechanical and chemical treatments in sagebrush and western juniper habitats where it is determined that these practices would improve rangeland health and increase native plant biodiversity. The Palmer Allotment is within the Owyhee Front Fire Management Unit (FMU). The September 2005 Southwestern Idaho Fire Planning Unit Fire Management Plan (FMP) ranks Owyhee Front FMU as a moderate priority for fuels treatments, with a #1 priority to maintain salt desert and sagebrush-steppe communities. Recommended objectives and strategies identified for this FMU include mechanical treatment of seral juniper on 2,500 acres (page 148). At trend sites within the treatment area, juniper density would be measured prior to treatment, and during scheduled nested plot frequency monitoring.

## **E. Alternatives Considered But Not Analyzed**

**No Grazing** - This alternative equates to “not issuing a new grazing permit” and “closing” the Palmer allotment to livestock grazing on BLM administered public lands. Subsequently, 1,704 acres of public lands would be closed to livestock grazing and 439 federal AUMs would be retired. This alternative was considered, however it was not analyzed. It was determined to be in opposition to the BLM’s responsibility, stated in the 1934 Taylor Grazing Act and subsequent amendments, to provide for the sustainability of the western livestock industry and the communities dependent upon productive, healthy rangelands. Furthermore, this alternative would not be in conformance with the 1999 Owyhee RMP – Objective: LVST 1 – “to provide for a sustained level of livestock use compatible with meeting other resource objectives” (USDI, 1999).

## **III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS**

### **A. Resources**

#### **1. Soils**

The allotment is in the major land resource area D-25, Owyhee High Plateau (USDA, 2006). A majority of the soils in the allotment are shallow to moderately deep, and range from somewhat poorly-drained to well-drained. Soils are clayey to loamy and vary in surface and subsurface rock fragments. These soils formed in residuum and alluvium derived predominantly from welded rhyolitic tuff. Most landform features are rhyolitic in origin. The associated ecological sites consist primarily of Loamy 12-16” (mountain big sagebrush, bluebunch wheatgrass, and Idaho fescue community); and Shallow-Claypan 11-13” (low sagebrush and bluebunch wheatgrass).

Predominant soil series are Longcreek-Hurryback-Succor complex on 3-40% slopes (map unit 95); Vitale-Cleavage-Bauscher complex on 5-50% slopes (map unit 191), Succor-Gooding-Deschler complex on 2-35% slopes (map unit 166), and Salisbury-Gracey-Barnard complex, on 2-12% slopes (map unit 145) (USDA, NRCS, 1990).

The Longcreek-Hurryback-Succor complex consists of soils that are shallow to very deep with slight to high water erosion potential, and slight to moderate wind erosion potential. Soils are well-drained, but have slow permeability and medium to rapid runoff. Available water capacity is very high for the Hurryback and Succor soils of this complex, but very low for the Longcreek soils.

The Vitale-Cleavage-Bauscher complex consists mostly of soils that are shallow to moderately deep, with slight to high water erosion potential, and slight wind erosion potential. Available water capacity is low, and permeability is moderately slow.

The Succor-Gooding-Deschler complex consists mostly of soils that are very deep to moderately deep, with slight to high water erosion potential, and moderate wind erosion potential. Available water capacity is high to very high, and permeability is slow to very slow.

The Salisbury-Gracey-Barnard complex consists of shallow to moderately deep soils on hardpan, located on fan terraces. These soils are well drained with slow permeability. Hazard of water or wind erosion is slight to moderate.

### **A. Alternative - Continuation of Current Management**

#### ***Direct and Indirect Effects***

Under this alternative, resource conditions that are not meeting, or making progress towards meeting, the ISRH standard for soils and watershed conditions related to livestock grazing would persist in Pasture 2. Specifically, the increase of bare ground, and changes in distribution and structure of the plant community have altered the ability of the watershed to provide for proper infiltration and reduce runoff. The continuation of current management is not likely to cause additional degradation, however management over the last two decades has not made significant progress towards meeting soil and watershed standards, and therefore significant progress is not expected to be made by continuing current management. The watershed standard is being met in pastures 1 and 3 and would continue to be met under the continuation of current management.

#### ***Cumulative Effects***

The cumulative impacts to the soil resource from management actions associated with this alternative are considered on a watershed basis. Historic livestock use in the area was unmanaged, and contributed to areas of soil erosion, compaction, and disturbance. Additionally, a sheep shearing camp was located in the lower elevation portions of Pasture 2, and the area was grazed by both sheep and cattle. While current management is not the cause of resource degradation, it is not allowing significant progress to be made towards meeting the soils and watershed standard. Continuing to not meet the watershed standard of the ISRH on this allotment will contribute to the instability of this watershed, and may contribute to instability of other connected watersheds.

### **B. Alternative - Permittee Proposal**

#### ***Direct and Indirect Effects***

Under this alternative, the soil and watershed conditions on the Palmer allotment would be expected to make significant progress towards meeting the Idaho Standards for Rangeland Health (ISRH). Soils and watershed conditions in Pasture 1 are expected to continue to meet the ISRH under this alternative. Restricting livestock use in Pasture 2 to summer and fall use would reduce the mechanical impacts caused when livestock trample saturated soils. Plant community composition and distribution in Pasture 2 would be expected to improve, increasing soil surface protection, and promoting proper infiltration, because grazing use would be deferred until after seed-ripe in 2 years of each 5-year grazing cycle and grazed in the spring a maximum of 1 in 5 years, leading to improved plant vigor and reproductive capability. The emphasis on early spring livestock use in Pasture 1 would be compatible with the active growth period in the annual grass-dominated plant communities. The loamy soils in Pasture 1 are not as susceptible to trampling as are the clayey soils in Pasture 2. Conditions in Pasture 3, which is currently meeting the ISRH for soils and watershed function, would be maintained or improved.

## **Rangeland Development Projects**

***Palmer Creek Spring Development*** – The enclosure on Palmer Creek Spring would protect the hydric soils associated with the spring from pugging and hoof-shearing by livestock. Diversion of water from the spring would result in a decrease in the size of the saturated soil area. However, this decrease in size would be minimal, because water would only be diverted for approximately 60 days each year during the grazing season, and not all water would be collected. Some impacts to soils directly adjacent to the location of the trough would occur due to congregation of watering livestock. However, these impacts would be offset by reduced impacts to soils along Palmer Creek that are currently occurring where livestock water on the creek.

***Pasture 1 Division Fence*** – This fence would be constructed adjacent to an existing Jeep trail. Soil disturbance due to off-road travel during fence construction would be minimal due to proximity of the existing road. Some ongoing soil disturbance within about 50 feet of the fence would occur due to trailing. The season of use in each area would be reduced as a result of dividing Pasture 1, reducing soil impacts due to congregation of livestock near waters or salting sites during the grazing period.

### ***Cumulative Effects***

The cumulative impacts to the soil resource from management actions associated with this alternative are considered on a watershed basis. Shifting the period of use in Pasture 2 to summer and fall would improve the soil and watershed conditions that are the current cause of failure to meet watershed standards. However use during the critical growing period could lead to other resource issues. Historic livestock use of the area was uncontrolled, unmanaged, and contributed to changes in the landscape resulting in areas of soil erosion, compaction, and disturbance. Current and future BLM actions as guided by the Taylor Grazing Act, the Public Rangeland Improvement Act, and the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing focus on controlling livestock impacts and correcting resource issues. Livestock grazing management under this alternative would not interfere with other uses of the public land and would not compromise the health of the watershed.

## **C. Alternative – AUM Suspension**

### ***Direct and Indirect Effects***

Under this alternative, the soil and watershed conditions on the Palmer allotment would be expected to make significant progress towards meeting the Idaho Standards for Rangeland Health (ISRH). Restricting livestock use in Pasture 2 to summer and fall use will reduce the mechanical impacts caused when livestock trample saturated soils. Additionally, the stocking rate would be reduced by 24%, reducing the overall potential for soil damage due to trampling. Plant community condition in Pasture 2 would be expected to improve because grazing use would be deferred until after seed-ripe in 2 years of each 3-year grazing cycle, and the pasture would not be used during the spring, when saturated soils are susceptible to trampling damage. Conditions in Pasture 3, which is currently meeting the ISRH, would be maintained or improved. The emphasis on early spring grazing in Pasture 1A is compatible with the active growth season of annual grasses in this pasture. Soil characteristics in Pasture 1B also appear to be compatible with early season use. Some re-growth of key species would occur following grazing in Pasture

1B in 2 years of each 3 year grazing cycle, allowing some improvement in plant vigor, and subsequently increasing soil surface protection. The proposed stocking rate of 5 acres/AUM is consistent with the stocking rate on the adjacent Baxter Basin allotment, which was found to be meeting or making significant progress towards meeting each of the ISRH in 2006.

### **Range Development Projects**

The impacts of the proposed range development projects for this alternative would be the same as under Alternative B.

### **Other Project Proposals**

While western juniper trees established within sagebrush-dominated areas of the Palmer allotment are currently small and scattered in occurrence, removal of these trees is expected to have a positive effect on watershed function in the future (Miller et al, 2005). Unchecked expansion of juniper into these habitats is expected to decrease ground cover, infiltration and soil water holding capacity, and increase soil loss and runoff. These effects would be mitigated by removal of seral and immature juniper within the allotment.

### ***Cumulative Effects***

The cumulative impacts to the soil resource from management actions associated with this alternative are considered on a watershed basis. The Palmer Allotment is located within the Jordan Creek watershed. Historically, livestock use of the area was unmanaged, and contributed to changes in the landscape resulting in areas of soil erosion, compaction, and disturbance. A sheep shearing camp was located in the lower elevation portions of Pasture 2, and the area was grazed by both sheep and cattle. Alternative C, coupled with proper management of other allotments in the area would be expected to allow significant progress to be made towards meeting the ISRH for watersheds on the Palmer allotment, resulting in a positive cumulative effect on a watershed basis. Removal of seral juniper within the allotment would have a positive effect on watershed vegetation conditions contributing to proper watershed function.

## **D. Alternative: Adaptive Management**

### ***Direct and Indirect Effects***

The impacts this alternative would be similar to those of Alternative B.

### **Range Development Projects**

The impacts of the proposed range development projects for this alternative would be the same as under Alternative B.

### **Other Project Proposals**

The impacts of proposed juniper treatment projects would be the same as under Alternative C.

### ***Cumulative Effects***

Cumulative effects of this alternative would be the same as those of Alternative B.

## **2. Upland Vegetation – including the Critical Elements of: Special Status Plant Species and Noxious Weeds/Invasive Species**

### **General Upland Vegetation**

The vegetation in the Palmer allotment is dominated by big sagebrush-bunchgrass with antelope bitterbrush being a major shrub component throughout a significant portion of Pastures 1 and 2. In pasture 3, shrubs have not become re-established since a wildfire that occurred in the 1960's. Hill slopes are dominated by native perennial bunchgrasses, and low-lying areas support a mixture of native perennial grasses and non-native annual and perennial grasses. Overall, the plant community supports the expected structural/functional groups, but a shift in species composition and distribution is contributing to the failure to meet Standard 4 of the ISRH. This shift is characterized by an increase in smaller perennial bunchgrasses such as squirreltail and Sandberg bluegrass, and a decrease in structurally larger bunchgrasses such as bluebunch wheatgrass and Idaho fescue. The establishment of non-native species presents an additional risk of changes in vegetation structure and composition.

### **Noxious Weeds and Invasive Species**

Invasive species on the Palmer allotment are primarily non-native annual grasses. Cheatgrass (*Bromus tectorum*) occurs scattered to common, in Pastures 1 and 3, and medusahead wildrye (*Taeniatherum caput-medusae*) occurs in dense patches in Pasture 3. Bulbous bluegrass (*Poa bulbosa*), a non-native perennial grass, occurs scattered to common in portions of all three pastures. Western juniper (*Juniperus occidentalis*), a native tree species that invades sagebrush areas is present in Pastures 1 and 2, and young (referred to as seral and immature juniper in this document) trees less than 8' tall are scattered in occurrence in sagebrush vegetation throughout large areas of these pastures. No Idaho Noxious weeds have been identified on the Palmer allotment.

### **Special Status Species**

No Federally listed plant species are known to occur on the Palmer allotment, although the U.S. Fish and Wildlife Service (USFWS) considers all of Idaho to be within the potential range of Ute ladies' tresses (*Spiranthes diluvialis*), a Federally Threatened orchid species. This plant occurs in spring, seep and riparian habitats. Due to the difficulty in narrowly defining potential habitat for this species, USFWS has chosen to apply a loose definition and requires Section 7 consultation only in three counties of southeast Idaho or in areas where the plant is actually found (USFWS 1998). Surveys specifically for this plant are recommended prior to authorizing federal actions in southwest Idaho, but not required.

No populations of BLM special status plants are known to occur on this allotment.

## **A. Alternative - Continuation of Current Situation**

### ***Direct and Indirect Effects***

Under this alternative, livestock grazing would continue under a deferred-rotation grazing schedule which has been in place since 1982. During this time period the native plant community standard (Standard 4) of the ISRH has not been met, nor has significant progress been made towards meeting the ISRH. Therefore, the continuation of current management

would not be expected to make significant progress towards meeting ISRH. Specifically, the season of use is a factor affecting soil stability in Pasture 2. Additionally the presence of invasive annual grasses is preventing the ISRH for native plant communities from being met. Under Alternative A, Pasture 2 would continue to be grazed in the spring 1 in 3 years, resulting in continued trampling and compaction when soils are wet, particularly in low-lying areas with deep soils and gentle slopes. Additionally, livestock use of the pastures would occur during the critical growth period of perennial grasses two of the three years, which could reduce vigor of perennial bunchgrasses and their ability to compete with annual species, and could hinder bunchgrasses from reaching the seed-dispersal stage.

***Range Improvement Projects*** –Under this alternative, no range improvement projects are proposed.

#### Noxious Weeds and Invasive Species

No noxious weed species have been identified in the Palmer Allotment, therefore no effects to noxious weed populations would be expected under Alternative A. Invasive species are present in the allotment, and although an increase in invasive species would be expected in response to fire, management under this alternative would not be expected to affect the amount or diversity of invasive plant species. Western juniper would be expected to continue to increase in sagebrush areas as seral juniper trees mature.

#### Special Status Species

No special-status plant species are known to occur in the Palmer Allotment, therefore no direct or indirect effects are expected as a result of this alternative.

#### ***Cumulative Effects***

The cumulative impacts to the upland vegetation from management actions of this alternative are considered on a watershed basis. The cumulative effects of Alternative A are reflected in the regional concern over the decline of sagebrush plant communities in good condition. Native plant communities in poor condition are more susceptible to impacts from invasive plant invasions, insects, and drought, and provide less than suitable habitat for wildlife. Under this alternative, the continued failure to meet the standard or make progress towards meeting the standard for native plant communities is expected.

### **B. Alternative - Permittee Proposal**

#### ***Direct and Indirect Effects***

Under this alternative, grazing in Pasture 1A would occur in the spring, from 3 to 5 years in each 5-year grazing rotation cycle. Grazing in pastures 1B, 2, and 3 would be delayed until July 5 in at least 2 years in each 5-year cycle. The key perennial grasses could achieve seed ripe in most years, and seed dispersal would occur prior to grazing when climatic conditions promote accelerated phenological development. Turning livestock out prior to April 15 would potentially create more opportunity for impacts to saturated soils, which could lead to impacts to the plant communities. The vigor and diversity of the native plants would benefit from the early use in Pasture 1, when livestock tend to focus on annual grasses; the perennial grasses would have time to regrow and achieve seed ripe following spring grazing.

### Noxious Weeds and Invasive Species

No noxious weed species were identified on the Palmer Allotment. Therefore, there would be no effect to noxious weed populations under Alternative B. In general, there would be little effect to invasive species as a result of implementation of Alternative B. Improving the vigor and health of native plant communities, provides greater potential to compete for critical resources than do compromised plant communities. Western juniper would be expected to continue to increase in sagebrush areas as seral juniper trees mature.

### Special Status Species

No special-status plant species are known to occur on the Palmer Allotment, therefore no direct or indirect effects would be expected from this alternative.

### ***Rangeland Development Projects***

**Palmer Creek Spring Development and Pasture 1 division fence** -No significant impacts are expected to the native plant communities, or special status species, as a result of these projects. Site-specific inventories will be conducted prior to construction of these projects to mitigate for any impacts to cultural resources, or special status plants or animals. Effects from construction include the potential for an increase in invasive species and/or noxious weeds, which respond favorably to disturbance. The localized increases of these species will need to be monitored and control measures implemented.

### ***Cumulative Effects***

The cumulative impacts to the upland vegetation from management actions of this alternative are considered on a watershed basis. Improving the condition of native plant communities on public lands in this allotment, and adjacent allotments will provide habitat for wildlife, and provide the essential nutrient, energy, and hydrologic cycles to maintain these plant communities. Limiting utilization of perennial grasses, especially during spring use, would promote improved plant vigor, and reproductive capability. Historic livestock use of the area was largely uncontrolled and unmanaged, and contributed to widespread changes in the vegetative composition of the landscape. Current and future BLM actions as guided by the Taylor Grazing Act, the Public Rangeland Improvement Act, and the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing focus on controlling livestock impacts and correcting resource issues. This emphasis is leading to an overall improvement in rangeland health, which is expected to continue into the future. Management of this land under this alternative as a livestock grazing allotment would not interfere with other uses of the public land and would not compromise the health of the watershed.

## **C. Alternative – AUM Suspension**

### ***Direct and Indirect Effects***

Under this alternative, the 24 percent reduction of permitted AUMs and modification of the season of use in pastures 1A, 1B and 2 would be expected to result in making significant progress towards meeting the ISRH. Utilization levels would be limited due to the reduction in

permitted AUM's, as well as adhering to the utilization levels and stubble heights as specified under Annual Management Indicators. After the pasture division fence is constructed, Pasture 1A would be grazed beginning in April each year, when livestock would be expected to concentrate on annual grasses, and disperse throughout the pasture. Typically, this pasture would be used for less than 3 weeks each year, reducing the likelihood that individual forage plants would be re-grazed following regrowth. Grazing use in Pasture 2 would be deferred until after seed dispersal in 2 years of each 3 year cycle, allowing for improved plant vigor and reduced impacts to soils. Pasture 1B would be grazed during the early growth season for key perennial grass species in 2 years of each 3-year cycle, and during culm elongation and seed formation in 1 year of each 3-year cycle, resulting in no net effect to upland plant communities, which are currently meeting the ISRH. Grazing use in Pasture 3 would occur on a 3-year deferred-rotation similar to the current situation. This rotation is expected to continue to meet the ISRH in Pasture 3.

#### Special-Status Species

No populations of special status plants are known to occur within the allotment, therefore no direct or indirect effects are expected as a result this alternative.

#### Noxious Weeds and Invasive Species

No noxious weed species are currently known to occur in the Palmer Allotment. Therefore, there would be no effect to noxious weed populations under Alternative C. In general, there would be little effect to invasive species as a result of implementation of Alternative C. Although, healthy native plant communities have greater potential to compete for critical resources than do compromised plant communities, reducing the likelihood of noxious weed establishment within the project area. Seral western juniper would be controlled in pastures 1A, 1B, and 2, reducing competition with sagebrush, bunchgrasses and other native plants.

#### ***Rangeland Development Projects***

##### **Palmer Creek Spring Development and Pasture Division Fence**

The effects of proposed rangeland development projects would be the same as under Alternative B. Site-specific inventories will be conducted prior to construction of this spring development to mitigate any impacts to cultural resources, or special status plants or animals. Effects from construction include the potential for an increase in invasive species and/or noxious weeds, which respond favorably to disturbance; following project construction, the project area will require monitoring for localized increases of these species, and weed control as necessary.

#### ***Other Project Proposals***

While western juniper trees established within sagebrush-dominated areas of the Palmer allotment are currently small and scattered in occurrence, removal of these trees is expected to have a positive effect on native sagebrush/bunchgrass vegetation structure and composition in the future. Unchecked expansion of juniper into these habitats is expected to result in a decrease in relative abundance of sagebrush and perennial bunchgrasses (Miller et al, 2005). These effects would be mitigated by removal of seral and immature juniper within the allotment.

### ***Cumulative Effects***

The cumulative impacts to the upland vegetation from management actions of this alternative are considered on a watershed basis. Improving the condition of native plant communities on public lands in this allotment, and adjacent allotments will provide habitat for wildlife, and provide the essential nutrient, energy, and hydrologic cycles to maintain these plant communities. Limiting utilization of perennial grasses, especially during spring use will promote better plant vigor, and health. Historic livestock use of the area was uncontrolled, unmanaged, and contributed to widespread changes in the vegetative composition of the landscape. Current and future BLM actions as guided by the Taylor Grazing Act, the Public Rangeland Improvement Act, and the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing focus on controlling livestock impacts and correcting resource issues. This emphasis is leading to an overall improvement in rangeland health, which is expected to continue into the future. Management of this land under this alternative as a livestock grazing allotment would not interfere with other uses of the public land and would not compromise the health of the watershed. The specific cumulative effects of this alternative would be the overall increase in the amount of sagebrush plant communities improving in condition within the Cow Creek area and the Jordan Creek watershed. A reduction in livestock numbers and modified season of use would minimize the effects of grazing on the available vegetation resources.

### **D. Alternative - Adaptive Management**

#### ***Direct and Indirect Effects***

Under this alternative, the modification of the season of use in pastures 1A, 1B and 2 would be expected to result in making progress towards meeting the ISRH. Utilization levels would be limited by adhering to the utilization levels and stubble heights as specified under Annual Management Indicators. In Pasture 2, deferral of livestock grazing until after seed-ripe in 2 of 3 years would result in improved plant vigor and ground cover. Current conditions would be maintained in Pasture 3, where current livestock management is compatible with the ISRH.

If the pasture division fence is constructed, Pasture 1A would be grazed beginning in April each year, when livestock would be expected to concentrate on annual grasses, and disperse throughout the pasture. In 2 out of 3 years, pasture 1B would be used in the spring, prior to the culm elongation period for deep-rooted perennial grasses. In these years, regrowth and seed-dispersal of these species would occur following the grazing period. Livestock impacts in Pastures 2 and 3 would be similar to those that would occur if the pasture division fence is not constructed.

#### **Special-Status Species**

No populations of special status plants are known to occur within the allotment, therefore no direct or indirect effects are expected as a result this alternative.

#### **Noxious Weeds and Invasive Species**

Effects of this alternative would be the same as for Alternative C.

### ***Rangeland Development Projects***

**Palmer Creek Spring Development and Pasture Division Fence** – The effects of proposed rangeland development projects would be the same as under Alternative B. Site-specific inventories will be conducted prior to construction of this spring development to mitigate for any impacts to cultural resources, or special status plants or animals. Effects from construction include the potential for an increase in invasive species and/or noxious weeds, which respond favorably to disturbance, the localized increases of these species will need to be monitored and controlled.

### **Other Project Proposals**

The effects of western juniper removal would be the same as under Alternative C.

### ***Cumulative Effects***

The cumulative impacts to the upland vegetation from management actions of this alternative are considered on a watershed basis. Improving the condition of native plant communities on public lands in this allotment, and adjacent allotments will provide habitat for wildlife, and provide the essential nutrient, energy, and hydrologic cycles to maintain these plant communities. Limiting utilization of perennial grasses, especially during spring use will promote better plant vigor, and health. Historic livestock use of the area was uncontrolled, unmanaged, and contributed to widespread changes in the vegetative composition of the landscape. Current and future BLM actions as guided by the Taylor Grazing Act, the Public Rangeland Improvement Act, and the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing focus on controlling livestock impacts and correcting resource issues. This emphasis is leading to an overall improvement in rangeland health, which is expected to continue into the future. Management of this land under this alternative as a livestock grazing allotment would not interfere with other uses of the public land and would not compromise the health of the watershed. The specific cumulative effects of this alternative would be the overall increase in the amount of sagebrush plant communities improving in condition within the Cow Creek area and the Jordan Creek watershed.

## **3. Wildlife – including the Critical Elements of Special Status Species and Migratory Birds**

### **Affected Environment**

#### **Special Status Species**

The Palmer allotment contains yearlong habitat for mule deer and elk in Pastures 1 and 2, and winter range in Pasture 3 (Map 5). The allotment is also used as spring/summer/fall habitat for pronghorn antelope. A number of special status species animals classified as BLM “Sensitive Species” are also likely to use the core area of the allotment for nesting, roosting or foraging. These sensitive species include prairie falcon, ferruginous hawk, sage grouse, calliope hummingbird, loggerhead shrike, sage sparrow, brewer’s sparrow, several bat species (which may forage over the allotment), pygmy rabbit, Mojave black-collared lizard, western ground snake, longnose snake, western toad, Woodhouse toad, and common garter snake.

Greater sage grouse (*Centrocercus urophasianus*) is a BLM Type 2<sup>5</sup> Sensitive Species known to occur on the Palmer allotment. There is one known sage-grouse lek in the Palmer allotment, and several active leks within 3 miles to the north of the allotment, along lower Cow Creek (Map 5). Based on sage grouse breeding and brood-rearing habitat assessments, Pasture 1 supports “Suitable” habitat for both breeding and brood rearing; Pasture 2 supports “Marginal” breeding habitat and “Suitable” brood rearing habitat. In Pasture 3, breeding habitat is “Suitable” in areas with shrubs, but “unsuitable” in areas where shrubs have not re-established following a wildfire in the 1960’s. Scattered juniper encroachment is evident in all the pastures. Juniper encroachment eventually leads to the displacement of sagebrush habitat leading to areas becoming unsuitable habitat for sage-grouse as sagebrush cover and understory species decline. Junipers provide perching areas for avian predators of sage-grouse and appear to increase the risk of predation of male sage-grouse (Conservation Plan for Sage-grouse, 2006).

Pygmy rabbit (*Brachylagus idahoensis*) is a BLM Type 2 Sensitive Species with the potential to occur on the Palmer allotment. Though surveys targeting potentially suitable habitat have been conducted on the allotment, presence of pygmy rabbits has not been documented.

Streams on the Palmer allotment do not have the potential to support redband trout or other salmonid species. The Palmer allotment does not have the potential habitat to support any listed or candidate terrestrial or amphibians species (i.e. spotted frog).

#### **A. Alternative - Continuation of Current Situation**

##### ***Direct and Indirect Effects***

##### **Special-Status Species**

Under this alternative, livestock grazing would continue under a deferred-rotation grazing schedule which has been in place since 1982. During this time period the wildlife habitat for Threatened, Endangered and Sensitive Species (Standard 8 of the ISRH) has not been met, nor has significant progress been made towards meeting the ISRH. Therefore, the continuation of current management would not be expected to make significant progress towards meeting ISRH. Under Alternative A, Pasture 2, which is marginal sage-grouse habitat, would continue to be grazed in the spring 1 in 3 years. In this pasture, plant vigor and species diversity would continue to be impacted by impacts to soils from spring grazing, as well as grazing during the critical season of growth in 2 of 3 years. Therefore, no progress towards “Suitable” habitat for sage-grouse and other sagebrush obligate species is expected under this alternative. Additionally, the continued use of pastures during critical growth periods reducing native plant vigor would not be expected to improve suitability of habitat in pastures 1 and 3 for sage-grouse and other sagebrush obligate species, as well as big game including deer, elk and pronghorn antelope. Juniper encroachment would continue leading to a decline in sagebrush and sagebrush understory species in all pastures, and would decrease sage-grouse habitat suitability by providing roosting locations for predatory birds. For the long term, the burned area in pasture 3 would again develop a shrub component, improving the habitat for mule deer. The riparian

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<sup>5</sup> BLM Type 2 Sensitive Species are defined as Rangewide/Globally Imperiled Species: Includes species that are experiencing significant declines throughout their range with a high likelihood of being listed under the Endangered Species Act in the foreseeable future due to their rarity and/or significant endangerment factors.

habitat would not improve and continue to decline in providing habitat diversity for wildlife species.

### ***Cumulative Effects***

The cumulative effects of this action are considered on a watershed basis. The effects of this alternative, considered together with impacts from other actions, including environmental assessments for grazing permit renewals on adjacent allotments would not lead to improvements in habitat for resident wildlife and special status animal species.

## **B. Alternative - Permittee Proposal**

### ***Direct and Indirect Effects***

#### **Special-Status Species**

In years when Pasture 1 is grazed in early spring, livestock would focus on already available annual plants prior to significant growth of native perennial grasses. Therefore, in these years vigor and diversity of native plants would be expected to improve, which would maintain or improve already suitable sage-grouse and big game (deer, elk, pronghorn antelope) habitat. Improvement in Pasture 2 (marginal sage-grouse habitat, and yearlong deer habitat, and spring/summer elk and pronghorn antelope habitat) would not be expected, because soil surface and native plant community conditions would not make significant progress towards meeting the ISRH under this alternative. Where Pasture 3 currently supports suitable sage-grouse habitat, habitat conditions are expected to be maintained under this alternative. Unsuitable habitat in Pasture 3 is due to lack of shrubs, and would not be affected by livestock grazing under this alternative. Unsuitable mule deer habitat in Pasture 3 still provides habitat for elk and pronghorn antelope. This habitat would be maintained. Western juniper would be expected to continue to expand throughout most of the allotment, decreasing suitability of sagebrush habitats and reducing cover and forage for sagebrush obligate wildlife species. For the long term, the burned area in pasture 3 would again develop a shrub component, improving the habitat for mule deer.

### ***Rangeland Development Projects***

The fence proposed to split pasture 1 and enclose the riparian area hinders movement of big game, particularly, pronghorn antelope. The fence would be constructed to meet and or exceed existing BLM standards for wildlife passage by placing the bottom smooth wire 18” off the ground to allow for pronghorn passage. The riparian area fence would benefit other sagebrush obligate species by reducing impacts to streambanks and eventually allowing riparian habitat to recover. A healthy riparian habitat provides better cover and habitat diversity for wildlife species. The pasture 1 fence allows pasture 1A to be managed for riparian pasture further improving habitat diversity for wildlife.

### ***Cumulative Effects***

Cumulative impacts are analyzed on a watershed basis. Past management direction focused on protecting riparian areas, which resulted in impacts to the upland areas. Current management focuses on balancing uses to reduce impacts to all wildlife habitats. The effects of this alternative, considered together with impacts from other actions, including environmental assessments for grazing permit renewals on adjacent allotments would eventually lead to improvements in habitat in Pasture 1 of the allotment for resident wildlife and special status

species. However, Pasture 2 would not be likely to make progress towards meeting Standard 8 of the ISRH. Conditions in Pasture 3 would be maintained. Overall, this alternative would not result in a positive cumulative impact to wildlife habitats within the watershed. Overall, some progress would be made towards meeting the Idaho Standards for Rangeland Health; however, significant progress is not expected under this alternative.

### **C. Alternative – BLM Proposal**

#### ***Direct and Indirect Effects***

##### **Special-Status Species**

Under this alternative the reduction in AUM's and modification in pastures 1A, 1B and 2 would be expected to result in improvement or maintenance of current sage-grouse and sagebrush obligate species habitat conditions. Pasture 2 would be expected to make progress from "marginal" to "suitable breeding habitat." Conditions in Pasture 3 would be expected to be maintained or improved under this alternative. Pasture 3 would continue to meet the ISRH. For big game species, improvement or maintenance of habitat would be the expected result for pastures 1A, 1B, 2 and 3.

#### ***Rangeland Development Projects***

The fence proposed to split pasture 1 and enclose the riparian area would hinder movement of big game, in particular pronghorn antelope. The fence would be constructed to meet and or exceed existing BLM standards for wildlife passage by placing the bottom smooth wire 18" off the ground to allow for pronghorn passage. The riparian area fence would benefit other sagebrush obligate species by reducing impacts to streambanks and eventually allowing riparian habitat to recover. A healthy riparian habitat provides better cover and habitat diversity for wildlife species. The pasture 1 fence allows pasture 1A to be managed as a riparian pasture, further improving habitat diversity for wildlife.

#### ***Other Proposed Projects***

The removal of seral juniper would result in a positive effect to wildlife habitat. Effects of juniper expansion into sagebrush habitats would be mitigated, leading to improved habitat for sage-grouse and other sagebrush obligate species. Wildlife forage provided by sagebrush, forbs and perennial grasses would be expected to increase, due to decreased competition from western juniper.

#### ***Cumulative Effects***

The effects of this alternative, considered together with impacts from other actions, including environmental assessments for grazing permit renewals on adjacent allotments would eventually lead to improvements or maintaining in habitat in all pastures. Past management direction focused on protecting riparian areas, which resulted in impacts to the upland areas, current management focuses on balancing uses to reduce impacts to all wildlife habitats. Through this and future environmental assessments, some progress will be made toward meeting the Idaho Standards for Rangeland Health by conforming with the Guidelines for Livestock. Together,

overall improvement would occur to wildlife habitat impacted by livestock use, which would result in improved and expanded habitat for various wildlife species.

#### **D. Alternative – Adaptive Management**

##### ***Direct and Indirect Effects***

###### **Special-Status Species**

Under this alternative the modified season of use in pastures 1A, 1B and 2 would be expected to result in improvement or maintenance of current sage-grouse and sagebrush obligate species habitat conditions. Pasture 2 would be expected to make progress from “marginal” to “suitable” sage-grouse breeding habitat.” Conditions in Pasture 3 would be expected to be maintained or improved under this alternative. Pasture 3 would continue to meet ISRH. For big game species, improvement or maintenance of habitat would be the expected result for pastures 1A, 1B, 2 and 3.

##### ***Rangeland Development Projects***

The impacts of rangeland development projects would be similar to those of Alternative C. However, if monitoring data indicate that the pasture division fence is unnecessary, this alternative would result in less restriction of big game movement.

##### ***Other Proposed Projects***

The removal of seral juniper would result in a positive effect to wildlife habitat. Effects of juniper expansion into sagebrush habitats would be mitigated, leading to improved habitat for sage-grouse and other sagebrush obligate species. Wildlife forage provided by sagebrush, forbs and perennial grasses would be expected to increase, due to decreased competition from western juniper.

##### ***Cumulative Effects***

The effects of this alternative, considered together with impacts from other actions, including environmental assessments for grazing permit renewals on adjacent allotments would eventually lead to improvements or maintaining habitat in all pastures. Past management direction focused on protecting riparian areas, which resulted in impacts to the upland areas, current management focuses on balancing uses to reduce impacts to all wildlife habitats. Through this and future environmental assessments, some progress will be made in meeting the Idaho Standards for Rangeland Health by conforming with the Guidelines for Livestock. Together, overall improvement would occur to wildlife habitat impacted by livestock use, which would result in improved and increased habitat for various wildlife species.

#### **4. Riparian/ Wetlands**

**Riparian Areas:** Palmer, Hooker, and Long Draw Creeks cumulatively account for the 2.25 miles of streams on BLM administered lands in the Palmer Allotment. Palmer Creek and Long Draw Creek are located within Pasture 1. Long Draw Creek however, does not support riparian vegetation due to lack of perennial water flow. The channel is steep, rocky and well defined, and dominated by silver sagebrush with some isolated patches of chokecherry and aspen. Hooker Creek is mostly located on private lands in pasture 2, and is an ephemeral draw with mesic herbaceous species present along the channel. The channel has downcut but is currently stable

and has appropriate species composition relative to site potential. A portion of Baxter Creek is located on State lands in Pasture 3, and therefore has not been assessed by BLM. Idaho Department of Lands staff determined that this stream segment was non-riparian during a field visit in 2000.

Approximately 0.6 miles of Palmer Creek are located on private lands, and 1.2 miles are located on BLM lands within Pasture 1. Palmer Creek has intermittent flow sufficient to support limited riparian plant communities. The portion of Palmer Creek on BLM lands in pasture 1 of the Palmer allotment was rated as functional-at-risk (FAR). Most willows on this reach are mature, though a few saplings were noted. Sedges and rushes are present along the reach, but Kentucky bluegrass is the dominant streambank vegetation in some areas. Streambank cover from desirable riparian species is not adequate to stabilize banks during high flow events. The Palmer Creek channel is “functioning at risk” due to a lack of channel and vegetative stability; existing riparian vegetation does not have adequate root masses to stabilize streambanks against cutting action.

One spring (5071) is located on BLM administered lands in Pasture 1 of the Palmer allotment, is FAR due to excessive bare ground and alteration of water flow patterns due to livestock hoof action. Overall, the spring supports an appropriate riparian plant community and hydric soils, but may be vulnerable to degradation due to reduced vegetative cover.

#### **A. Alternative - Continuation of Current Situation**

##### ***Direct and Indirect Effects***

Riparian areas in Pasture 1 of the Palmer allotment are being negatively impacted by “hot season” grazing during July and August, as well as heavy riparian utilization (resulting in <2” stubble heights) and long grazing periods (>60 days prior to 1998, approximately 45 days each year since 1998). This has resulted in low stubble heights along Palmer Creek, and excessive soil alteration of saturated soils on Palmer Creek Spring. Therefore, continuation of current management is not expected to allow riparian areas to make significant progress towards meeting the applicable ISRH.

##### ***Cumulative Effects***

Cumulative effects to riparian resources are analyzed on a watershed basis. Under this alternative, significant progress towards meeting riparian standards would not be made. While streams on the Palmer Allotment are not identified in the 1999 Owyhee Resource Management Plan (RMP) as manageable fisheries or riparian habitat, they are capable of supporting riparian species, and providing functionality in dissipating high flows, filtering sediments and regulating water temperatures. Under this alternative, these capabilities would not improve, resulting in some cumulative impacts to water riparian function and water quality within the Jordan Creek watershed.

## **B. Alternative - Permittee Proposal**

### ***Direct and Indirect Effects***

Under this alternative, progress towards meeting riparian standards set forth in the ISRH would be expected. The early season of use in Pasture 1A would allow adequate time for riparian vegetation regrowth following the grazing season, resulting in increased streambank stability and improved riparian vegetation structure and vigor. However, under this alternative, Pasture 1A could be grazed during the summer as often as 2 years in each 5 year cycle. Grazing during the summer would result in increased livestock use in and adjacent to the riparian area, and could negatively impact vigor of riparian vegetation, which would not have adequate time to recover following grazing, particularly in hot, dry years. There are no significant riparian resources on public lands in Pastures 1B (outside of the proposed enclosure), 2 or 3.

### ***Proposed Fences and Projects***

The enclosure on Palmer Creek Spring would result in improved functioning condition because livestock impacts would be eliminated from the spring and wet meadow complex. Diversion of water from the spring to a water trough would be likely to result in a slight reduction in the size of the current riparian area. However, the project would result in an overall benefit to the spring because the source would be protected by the enclosure fence. The Palmer Creek riparian area would benefit from this project, as livestock would water at the trough in the uplands more often, reducing impacts to the streambanks and riparian area.

The Pasture 1 division fence would allow Pasture 1A to be managed as a riparian pasture, with a short, early spring season of use, which would result in improved riparian conditions.

### ***Cumulative Effects***

Cumulative effects to riparian resources are analyzed on a watershed basis. Under this alternative, significant progress towards meeting riparian standards would be expected. While streams on the Palmer Allotment are not identified in the 1999 Owyhee Resource Management Plan (RMP) as manageable fisheries or riparian habitat, they are capable of supporting riparian species, and provide functionality in dissipating high flows, filtering sediments and regulating water temperatures. Under this alternative, these capabilities would improve, resulting in no cumulative impacts to water riparian function and water quality within the Jordan Creek watershed.

## **C. Alternative – BLM Proposal**

### ***Direct and Indirect Effects***

Under this alternative, riparian areas on the Palmer allotment would be expected to make significant progress towards the ISRH. Pasture 1A would be managed as a riparian pasture, and would be grazed for a short period during the early spring. This season of use would allow adequate time for riparian species to recover during the growing season, leading to improved vigor and cover. Increased vigor and cover of riparian species would result in increased streambank stability, and eventual improvement of stream channel morphology.

### ***Rangeland Development Projects***

The effects of proposed projects are the same as those discussed under Alternative B.

#### ***Other Proposed Projects***

Juniper encroachment into riparian and wetland areas on the allotment has not been noted. Therefore, there would be no impacts of juniper removal on riparian areas.

#### ***Cumulative Effects***

Cumulative effects to riparian resources are analyzed on a watershed basis. Under this alternative, significant progress towards meeting riparian standards would be expected. While streams on the Palmer Allotment are not identified in the 1999 Owyhee Resource Management Plan (RMP) as manageable fisheries or riparian habitat, they are capable of supporting riparian species, and provide functionality in dissipating high flows, filtering sediments and regulating water temperatures. Under this alternative, these capabilities would improve, resulting in no cumulative impacts to water riparian function and water quality within the Jordan Creek watershed.

### **D. Alternative – Adaptive Management**

***Direct and Indirect Effects*** Under this alternative, riparian areas on the Palmer allotment would be expected to make significant progress towards the ISRH. Pasture 1A would be managed as a riparian pasture, and would be grazed for a short period during the early spring. This season of use would allow adequate time for riparian species to recover during the growing season, leading to improved vigor and cover. Increased vigor and cover of riparian species would result in increased streambank stability, and eventual improvement of stream channel morphology. If monitoring data indicate that significant progress is not being made, the pasture division fence would be constructed, and the season of use in the riparian area along Palmer Creek would be further reduced to 2 weeks per year. The short, early spring season of use would result in increased cover of herbaceous and woody riparian species, improved vigor, and stabilization of stream banks along Palmer Creek.

#### ***Rangeland Development Projects***

The effects of proposed projects are the same as those discussed under Alternative B.

#### ***Other Proposed Projects***

Juniper encroachment into riparian and wetland areas on the allotment has not been noted. Therefore, there would be no impacts of juniper removal on riparian areas in the short-term. In the long-term, improvements in upland health condition may lead to decreased runoff, and more dependable in-stream flows and some riparian expansion.

#### ***Cumulative Effects***

Cumulative effects to riparian resources are analyzed on a watershed basis. Under this alternative, significant progress towards meeting riparian standards would be expected. While streams on the Palmer Allotment are not identified in the 1999 Owyhee Resource Management Plan (RMP) as manageable fisheries or riparian habitat, they are capable of supporting riparian species, and provide functionality in dissipating high flows, filtering sediments and regulating

water temperatures. Under this alternative, these capabilities would improve, resulting in no cumulative impacts to water riparian function and water quality within the Jordan Creek watershed.

## **5. Water Quality**

Streams have general use designations for secondary contact recreation, agricultural water supply, wildlife habitat and aesthetics. Monitoring of Posey Creek indicated full support of designated beneficial uses and cold-water biota beneficial use.

### **A. Alternative – Continuation of Current Situation**

#### ***Direct and Indirect Effects***

Current management appears to be consistent with maintenance of applicable water quality standards. Water quality standards would continue to be met under this alternative.

#### ***Cumulative Effects***

The cumulative impacts to water quality from management actions of this alternative are considered on a watershed basis. Current and future BLM actions as guided by the Taylor Grazing Act, the Public Rangeland Improvement Act, and the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management focus on controlling livestock impacts and correcting resource issues. Continuation of current livestock management would provide for maintenance of water quality standards. Management of this land under this alternative would not interfere with other uses of the public land and would not compromise the health of water quality in this watershed.

### **B. Alternative - Permittee Proposal**

#### ***Direct and Indirect Effects***

Limiting livestock grazing to spring use (prior to June 1) in Pasture 1 would benefit the riparian areas along Palmer Creek and allow them to develop and maintain riparian plant communities appropriate to the capability of the stream. Stream channels would improve over the long term as they narrow, deepen and stabilize. This would improve water quality criteria for temperature, dissolved oxygen levels, sediment and reduced *E. coli* and fecal coliform levels. Changes in water quality would not be immediate and would require development of healthy riparian areas to see results. In general, aquatic habitat conditions would improve as channel form recovers, fine sediment levels decrease, and stream shading levels increase.

#### ***Rangeland Development Projects***

Construction of the proposed range improvements would result in an overall improvement in riparian conditions, and therefore would eventually benefit water quality.

#### ***Cumulative Effects***

The cumulative impacts to water quality from management actions of this alternative are considered on a watershed basis. Current and future BLM actions as guided by the Taylor Grazing Act, the Public Rangeland Improvement Act, and the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing focus on controlling livestock impacts and

correcting resource issues. This grazing management emphasis would lead to an overall improvement resource conditions which would be expected to continue into the future. Management of this land under this alternative as a livestock grazing allotment would not interfere with other uses of the public land and would not compromise the health of water quality in this watershed.

### **C. Alternative – BLM Proposal**

#### ***Direct and Indirect Effects***

Effects under this alternative would be similar to Alternative B. In addition, the reduced stocking rate would result in the introduction of fewer nutrients and bacteria to surface waters on the Palmer allotment. Additionally, improvement of riparian areas would be expected to be more rapid under this alternative, resulting in improvements in water quality parameters, including nutrients, bacteria and sediment. Water quality standards would continue to be met under this alternative.

#### ***Rangeland Development Projects***

Construction of the proposed range improvements would result in an overall improvement in riparian conditions, and therefore would eventually benefit water quality.

#### ***Other Proposed Projects***

The proposed juniper removal project would not have any impacts on water quality on the Palmer allotment.

***Cumulative Effects-*** Cumulative effects under this alternative would be the same as under Alternative B.

### **D. Alternative – Adaptive Management**

#### ***Direct and Indirect Effects***

Effects under this alternative would be similar to Alternative B. In addition, the reduced stocking rate would result in the introduction of fewer nutrients and bacteria to surface waters on the Palmer allotment. Additionally, improvement of riparian areas would be expected to be more rapid under this alternative, resulting in improvements in water quality parameters, including nutrients, bacteria and sediment. Water quality standards would continue to be met under this alternative.

#### ***Rangeland Development Projects***

Construction of the proposed range improvements would result in an overall improvement in riparian conditions, and therefore would eventually benefit water quality.

#### ***Other Proposed Projects***

The proposed juniper removal project would not have any impacts on water quality on the Palmer allotment.

### *Cumulative Effects*

Cumulative effects under this alternative would be the same as under Alternative C.

## **6. Cultural Resources**

Cultural resources are cultural properties or traditional life-way values that are identifiable through field inventory, document research, and ethnography. They include physical locations or sites, structures, historic trails, natural features, and areas of plants or items that have traditional cultural or religious importance to a specific social or cultural group. Traditional life-way values are religious beliefs, cultural practices and social interactions that are important to the maintenance of a specific social or cultural group's existence and are passed from generation to generation via an oral tradition. Artifacts are the material goods of a culture and are defined as objects that demonstrate evidence of human manufacture, modification or use.

Cultural resources are recognized as fragile, irreplaceable assets with potential socio-cultural, public and scientific uses that represent an important and integral part of our nation's heritage. These non-renewable resources are located and identified through field surveys and Tribal consultation, then evaluated for significance and managed according to federal law, BLM policies and regulations, land use plans and BLM activity plans. The BLM generally allows for cultural resource preservation and protection for significant sites. Preservation is accomplished by avoiding impacts to significant cultural resource sites, redesigning projects, terminating projects or mitigating the project's adverse effects by recordation, data recovery, and/or other agreed upon mitigation measures.

The BLM is authorized under several laws to wisely manage the cultural resources on public lands. The BLM complies with these laws by identifying and evaluating the significance of cultural resources found within a project's impact area. Significance is defined by 36 CFR 60.4 and can be of local, state or national importance. Cultural resources evaluated as significant would be protected from the impacts of BLM actions and, if appropriate, may be nominated to the National Register of Historic Places.

Boise District BLM records indicate that there have been no cultural inventories conducted within the boundaries of any of the three Palmer Allotment pastures. There is, however, one Native American site of record within the allotment.

### **A. Alternative - Continuation of Current Situation**

#### *Direct and Indirect Effects*

The actual effects upon cultural resources within the allotment boundaries under a continuation of the current situation are unknown. Under this alternative, livestock grazing would continue as before and cultural resources would be subjected to the continuing risks associated with trailing along fence lines, trampling and the mechanical disturbances created by hoof action as before. No monitoring of the existing cultural site has been conducted; therefore there are no data on its condition.

### ***Cumulative Effects***

Cumulative impacts to cultural resources may occur with changes in fencing and watering areas. New fence and watering locations could potentially create additional zones of livestock trailing and trampling. Supplemental feeding areas cause animals to congregate and trampling is exacerbated as a result. These activities may cause damage or destruction to any cultural resources present.

## **B. Alternative - Permittee Proposal**

### ***Direct and Indirect Effects***

Three rangeland management projects are proposed for this allotment. They include the construction of a 0.9 mile long fence and the development and fencing of one spring area. No known cultural properties would be affected by these undertakings, however, cultural surveys would be required in all areas of potential effect (see Mitigation Measures, Chapter III (B)). Livestock grazing would continue as before and cultural resources would be subjected to the same risks described for Alternative A.

### ***Cumulative Effects***

Cumulative effects to cultural resources under this alternative would be similar to those described for Alternative A.

## **C. Alternative – BLM Proposal**

### ***Direct and Indirect Effects***

Rangeland management projects proposed under this alternative are identical to those in Alternative B. No known cultural properties would be affected by these undertakings, however, cultural surveys would be required in the areas of potential effect (see Mitigation Measures, Chapter III (B)). Livestock grazing would be reduced and potential damage to cultural resources is the same as that described for Alternative A.

### ***Other Proposed Projects***

Prior to implementation of juniper removal, the area would be assessed, and any necessary cultural surveys would be completed.

### ***Cumulative Effects***

Cumulative effects to cultural resources under this alternative would be similar to those described for Alternative A.

## **D. Alternative – Adaptive Management**

### ***Direct and Indirect Effects***

Rangeland management projects proposed under this alternative are identical to those in Alternative B. No known cultural properties would be affected by these undertakings, however, cultural surveys would be required in the areas of potential effect (see Mitigation Measures, Chapter III (B)). Livestock grazing would be reduced and potential damage to cultural resources is the same as that described for Alternative A.

### ***Other Proposed Projects***

Prior to implementation of juniper removal, the area would be assessed, and any necessary cultural surveys would be completed.

### ***Cumulative Effects***

Cumulative effects to cultural resources under this alternative would be similar to those described for Alternative A.

## **7. Recreation and Visual Resources**

The main recreational activities within the area include hunting, fishing, bird watching, sightseeing, hiking, driving for pleasure, nature study, camping, horseback riding, mountain biking, rock hounding, and viewing historic sites. Recreational opportunities on the Palmer allotment are limited due to lack of maintained access roads, and limited recreation resources.

Off-highway vehicles (OHVs) are limited to existing roads and trails. Cross-country motor vehicle travel is not authorized in the Owyhee Resource Area.

### **Visual Resources (VRM)**

Public lands within the proposed allotment are categorized as VRM Class IV. The objective of this class is to provide for management activities which require major modifications of the existing character of the landscape. The level of change to the characteristic of the landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location and minimal disturbance.

#### **A. Alternative - Continuation of Current Situation**

##### ***Direct and Indirect Effects***

**Recreation** –Effects to recreation under this alternative would be the interaction with livestock during periods of livestock use. During periods of non-livestock use, no impacts would be expected. Areas that are improving with current management would likely continue to improve and provide improved opportunities for recreation. Areas of heavy livestock use would impact recreational opportunities.

**Visual Resource Management (VRM)** – Continuation of the present grazing systems would maintain visual conditions of the area, which is within the criteria for the classification. Maintenance of existing range developments may have some short-term negative visual effects; however, the level of impact is considered acceptable for these VRM classifications.

##### ***Cumulative Effects***

The cumulative effects of this action, on recreation would be minimal. Hunting is the most likely recreational pursuit on this allotment. The hunting season would generally not coincide with the season of use for livestock on the allotment, thus minimizing human/livestock conflicts.

## **B. Alternative - Permittee Proposal**

### *Direct and Indirect Effects*

**Recreation** - Implementation of this alternative would have similar impacts to recreation as those described for Alternative A. Proposed changes to livestock grazing systems may provide improvement to riparian and upland vegetation and wildlife habitat, which would have a positive effect on recreation over the long term. While livestock are generally removed from the allotment each year before the start of hunting season, the permit would allow grazing as late as October 15. If livestock remain on the allotment until October 15, some conflicts with hunters in the area may arise.

**Visual Resource Management (VRM)** - The proposed action would improve scenic quality in some areas as vegetative condition improves, and would continue the impacts to scenic quality that occur in areas of heavy livestock use. These impacts are considered acceptable with the VRM objectives for this area.

### *Cumulative Effects*

The cumulative effects of this alternative would be the same as those described for Alternative A.

## **C. Alternative – BLM Proposal**

Effects would be the same as under Alternative B. However, livestock would be removed from the allotment no later than September 15 each year, reducing the potential for conflicts with hunters in the area. Juniper cutting would result in minor impacts to visual resources in the short-term due to scattered downed trees. However, in the long-term, the project would result in positive effects to visual resources due to improvement of native sagebrush habitats on the Palmer allotment.

## **D. Alternative – Adaptive Management**

Effects would be the same as under Alternative C.

## **8. Social and Economic**

The livestock industry is an important component of the local economy. The Palmer allotment provides a manageable and economically stable grazing unit to the permittee, in combination with privately held lands. Grazing preference attached to the Palmer Allotment is currently 439 AUMs. Reported Actual Use for the period from 1985-2006 indicates that annual Actual Use levels have ranged from 265 AUMs to 420 AUMs, and averaged 337 AUMs. This management unit allows for economic benefits to the individual livestock business, and ultimately its employees and the local community. The existence of this economic unit also helps to maintain rural lifestyles within the community.

For a detailed discussion of the Social and Economic conditions in Owyhee County and the region influenced by public lands in the area, see the Owyhee RMP/EIS, July 1999 (pgs III-60 to III-73).

## **A. Alternative –Continuation of Current Situation**

### ***Direct and Indirect Effects***

Under this alternative, overall economic viability of traditional livestock grazing in this area would not be expected to change over the long term. Continuation of present livestock grazing management on this allotment will maintain the social and economic benefits currently being realized by local individuals and the community, in the short-term. However, the continued decline in condition of the plant communities will eventually reduce the long-term carrying capacity of this allotment.

### ***Cumulative Effects***

The foreseeable future of livestock grazing in this allotment would not continue to be sustained economically. Therefore the social and economic aspects of livestock grazing in this area would not change under this alternative. The continuation of the failure to meet the ISRH would reduce the ability of the watershed to maintain the energy, nutrient, and hydrologic cycles that are essential to sustain a healthy watershed and plant communities. As resource conditions decline, the local economic and social benefits will be reduced.

## **B. Alternative –Permittee Proposal**

### ***Direct and Indirect Effects***

Under this alternative, minimal social and economic impacts would be realized by the current grazing permittee. Some progress towards meeting the ISRH would be made, resulting in improved resource values, which would be expected to at least maintain current livestock use on the allotment.

### ***Rangeland Development Projects***

Some up-front costs would be incurred for installation of the proposed range projects. However, long-term costs for maintenance of these projects would be minimal.

### ***Cumulative Effects***

Under Alternative B, livestock grazing and its traditional values which are important in Owyhee County, Idaho, would be sustained. However, progress towards meeting the ISRH would be slow. On a cumulative basis, local economic and social benefits would be likely to remain at current levels.

## **C. Alternative – BLM Proposal**

### ***Direct and Indirect Effects***

This alternative would result in minimal short-term social and economic impacts to the current grazing permittee. This alternative represents a suspension of 24% of the currently authorized grazing use, or 102 Animal Unit Months. The proposed Active preference level is equivalent to the average reported actual use over the past 22 years. Therefore, in most years the permittee would be able to make use of the allotment at the same levels as in the past. The reduction would result in direct social and economic impacts but in the long-term, the partial suspension and modified season of use would allow for making significant progress towards meeting the ISRH, which would in turn help to maintain and sustain the area as a grazing allotment.

***Rangeland Development Projects*** Some up-front costs for installation of proposed rangeland development projects would be incurred. Long term maintenance costs would be minimal.

***Other Proposed Projects*** Juniper cutting would involve costs of implementation in the short term. In the long term, the project would be expected to have a positive social and economic effect as a result of improved habitat and increased forage production.

### ***Cumulative Effects***

Under this alternative livestock grazing would continue to be authorized in these grazing allotments, but at reduced levels. The foreseeable future of livestock grazing in these allotments would continue to be sustained economically. Therefore the social and economic benefits of livestock grazing in this area would be slightly reduced in the short term, but no significant cumulative impacts would occur under this alternative.

## **D. Alternative – Adaptive Management**

The impacts under this alternative would be the same as under Alternative B.

## **B. Mitigation Measures**

Projects on BLM administered public lands require site-specific clearances prior to construction or re-design. Travel is restricted to existing roads and trails. If off-road travel is required for construction or maintenance of projects, prior authorization from the BLM authorized officer is required, and would be granted on a case-by-case, site-specific basis.

### **Cultural Resources**

Additional impacts of the BLM actions on public lands resulting from the issuance of this grazing permit would be addressed on a project-by-project basis for compliance with Section 106 of the National Historic Preservation Act and NEPA / FLPMA. As a result of the Section 106 process adverse effects would be avoided or mitigated to an acceptable level of impact.

### **Special Status Plant and Animal Species**

Site-specific surveys would be conducted prior to implementation of any projects on public lands, including but not limited to spring developments and fence realignments. In the event of discovery of resource values that may be impacted by a project the project would be relocated or modified to such an extent the impacts would be avoided or mitigated to an acceptable level.

### **Wildlife**

Any new interior pasture fences located on public lands would conform to the specifications for standard livestock fences in deer/elk/antelope habitat which consist of two barbed upper strands and a smooth bottom strand. Any enclosure fences would conform to specifications for livestock fences in deer/elk/ antelope habitat where extreme restrictions are required that consist of three upper barbed strands and one lower smooth strand.

All livestock troughs would be equipped with an approved wildlife escape ladder at the time of trough installation and it would be the responsibility of the permittee(s) to ensure that these ramps are maintained and/or replaced as necessary to insure the continued safe use of troughs by wildlife. The BLM would provide replacement ramps upon request by the permittee(s).

### **Visual Resources/Recreation/Soils**

Motorized travel for survey, design, construction, or maintenance of projects (i.e. fences) would be limited to existing, authorized roads and trails. Any off-road or off-trail travel would require prior consultation and approval by the BLM authorized officer. If an approved project requires cross-country access for motorized equipment, the following requirements apply.

- No heavy equipment would be used to clear fence lines, and fence lines would not be bladed or scraped.
- Vehicle traffic would be limited to one pass of a rubber-tire vehicle for material distribution along the proposed fence route, with prior authorization from the BLM's Authorized Officer.
- Vegetation clearing associated with proposed projects would be kept to the minimum needed for construction, and require prior authorization from the BLM's Authorized Officer.

#### IV. CONSULTATION AND COORDINATION

Throughout the Standards and Guidelines, and grazing permit renewal process, interested publics and grazing permittees have participated in various capacities.

<b>Date</b>	<b>Location – action</b>	<b>Participants</b>
September 17, 2004	Draft Rangeland Health Assessment mailed to interested parties	Refer to mailing list
October 5, 2006	Final Rangeland Health Assessment and Evaluation/Determination mailed to interested parties	Refer to mailing list
February 22, 2007	BLM-Owyhee Field Office Meeting to formulate Permittee Proposal (Alternative B)	BLM-Dominika Lepak, RMS; Kathi Kershaw, Botanist/Ecologist Interested Parties – Richard Bennett (Permittee), Mindy Kershner, Alan Schroeder, Chad Gibson
March 12, 2007- March 23, 2007	Consultation on EA Alternative B via email and telephone	BLM-Dominika Lepak Interested Parties: Alan Schroeder, Chad Gibson
May 11, 2007	Draft EA mailed to permittee and interested parties	Refer to mailing list
June 5, 2007	BLM – Owyhee Field Office Discussion of Draft EA	BLM-Dominika Lepak Interested Parties: Chad Gibson
July 27, 2007	BLM – Owyhee Field Office Discussion of EA Alternatives	BLM – Dominika Lepak, Kathi Kershaw Interested Parties: Chad Gibson

### **Interdisciplinary Team Members**

This document was prepared by an Interdisciplinary Team (ID Team) of BLM Owyhee Field Office natural resource professionals. This ID team contributed to the preparation of this document through various levels of involvement as identified in the table below. Data considered for this document includes all field data collected by BLM personnel, contracted parties, and information submitted by the permittee and/or interested public.

<b>Name</b>	<b>Title</b>	<b>Function</b>
Dominika Lepak	Team Lead/Rangeland Management Specialist	Livestock grazing history, Actual use, Utilization, Riparian and Water Quality
Paul Seronko	Soil Scientist	Watersheds and Soils
Kathi Kershaw	Ecologist/Botanist	Native, Seedings, Exotic Plant Communities, Threatened, Endangered and Sensitive Plant Species
Jill Holderman	Wildlife Biologist	Threatened, Endangered, and Sensitive Animal Species; Wildlife
Brian McCabe	Archaeologist	Cultural Resources
Ryan Homan	Outdoor Recreation Planner	Recreation and Visual Resource Management

## V. LITERATURE CITED

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- USDA, NRCS. 1990. Soil Survey of Owyhee County Area, Idaho. U.S. Department of Agriculture, Natural Resource Conservation Service. Washington, D.C., USA.
- USDI. 1996. Utilization Studies and Residual Measurements, Interagency Technical Reference. USDI Bureau of Land Management, Denver, CO.
- USDI. 1998. Measuring and Monitoring Plant Populations. BLM Technical Reference 1730-1. USDI Bureau of Land Management, Denver, CO.
- U.S. Fish and Wildlife Service, Snake River Basin Office. 1998. Memo to State Director, BLM: Conservation and Protection of *Spiranthes diluvialis*, File #1002.1000. Boise, ID, USA.

**VI. APPENDIX A**

**Boise District Spring Range Readiness Worksheet**

Date: \_\_\_\_\_

Allotment: \_\_\_\_\_

Owyhee Field Office

Pasture: \_\_\_\_\_

Recorded by: \_\_\_\_\_

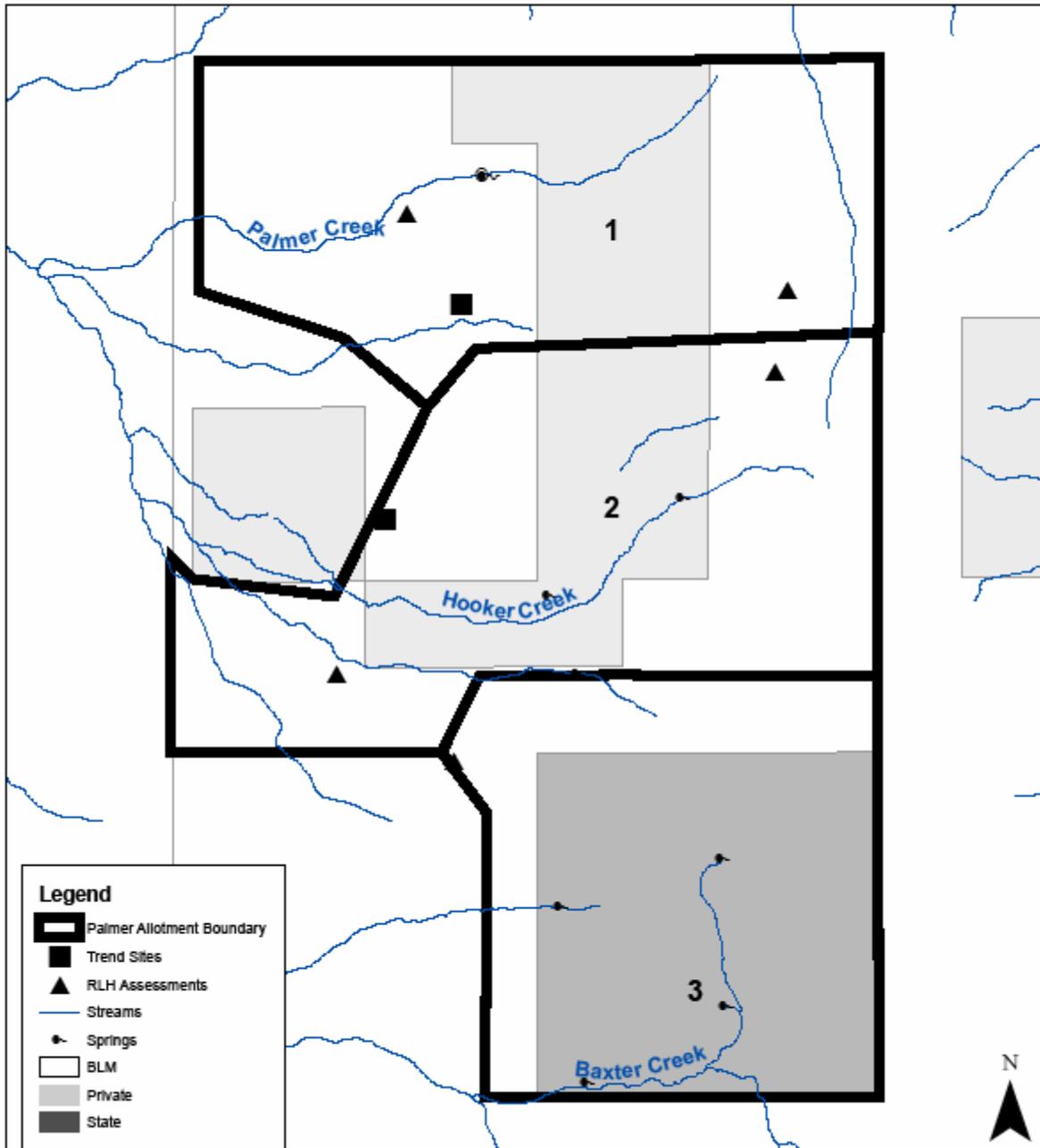
UTM/Legal: \_\_\_\_\_

<b>Plant Species</b>	<b>Range Readiness Criteria</b>	<b>Recorded Condition</b>
BRTE (cheatgrass) (with few perennials)	3 <sup>rd</sup> leaf stage and 2” green active growth	
BRTE (cheatgrass) (with substantial perennial grass component)	3 <sup>rd</sup> leaf stage and 2” green active growth with old growth, or 4” without old growth	
TAAS (medusahead)	Soil must be firm, and 3 <sup>rd</sup> leaf stage with at least 2” green active growth	
POSA3 (Sandberg bluegrass)	Greater than 1” active growth and seed stalks forming	
Wheatgrass seedings	Average 4” active growth with old growth present, or 6” active growth without old growth	
SIHY (squirreltail)	Average 3-4” active growth with old growth present or 5” active growth without old growth	
AGSP (bluebunch)	4” active growth with old growth present or 6” active growth without old growth	
FEID (Idaho fescue)	3-4” active growth with old growth present or 5” active growth without old growth	
Soils	No evidence of puddles or frost, soil firm. Sufficient soil moisture exists to allow adequate regrowth on spring/fall range.	

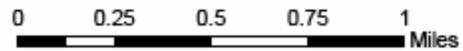
# VII. MAPS

## Map 1 - Alternative A

### Palmer Allotment 0507 - Alternative A

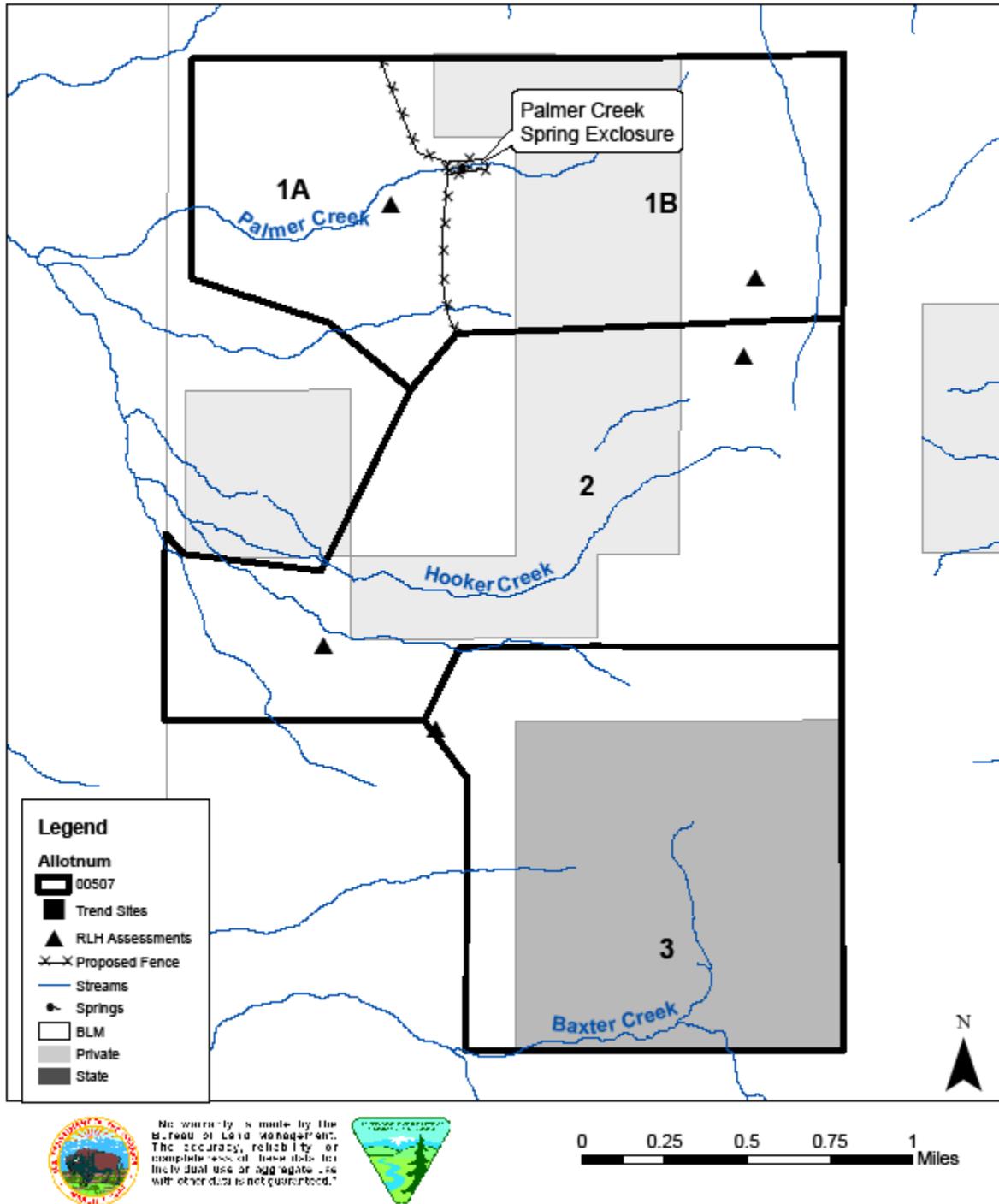


No warranty is made by the Bureau of Land Management. The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.

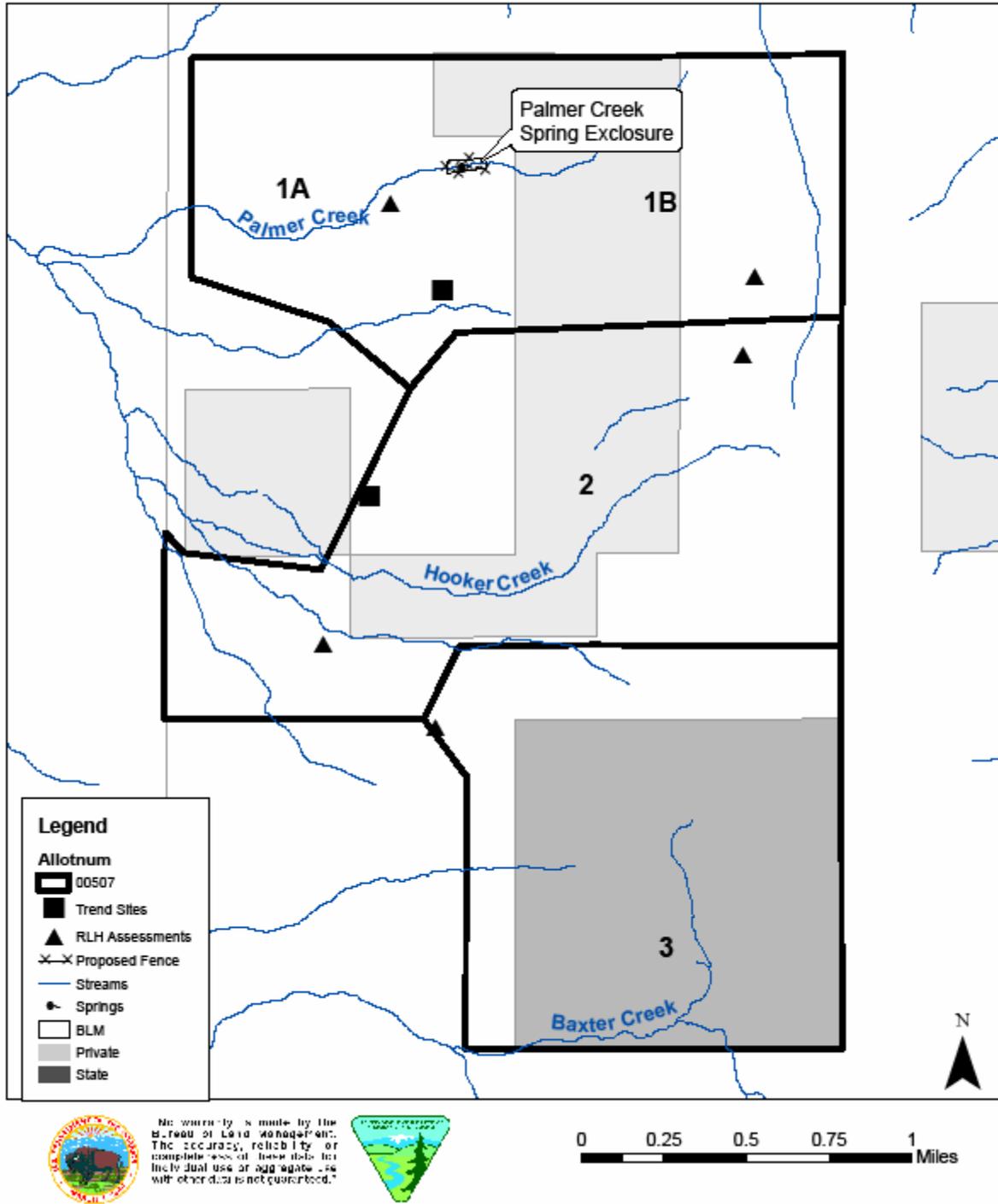


Map 2 - Alternatives B and C

Palmer Allotment 0507 - Alternatives B and C

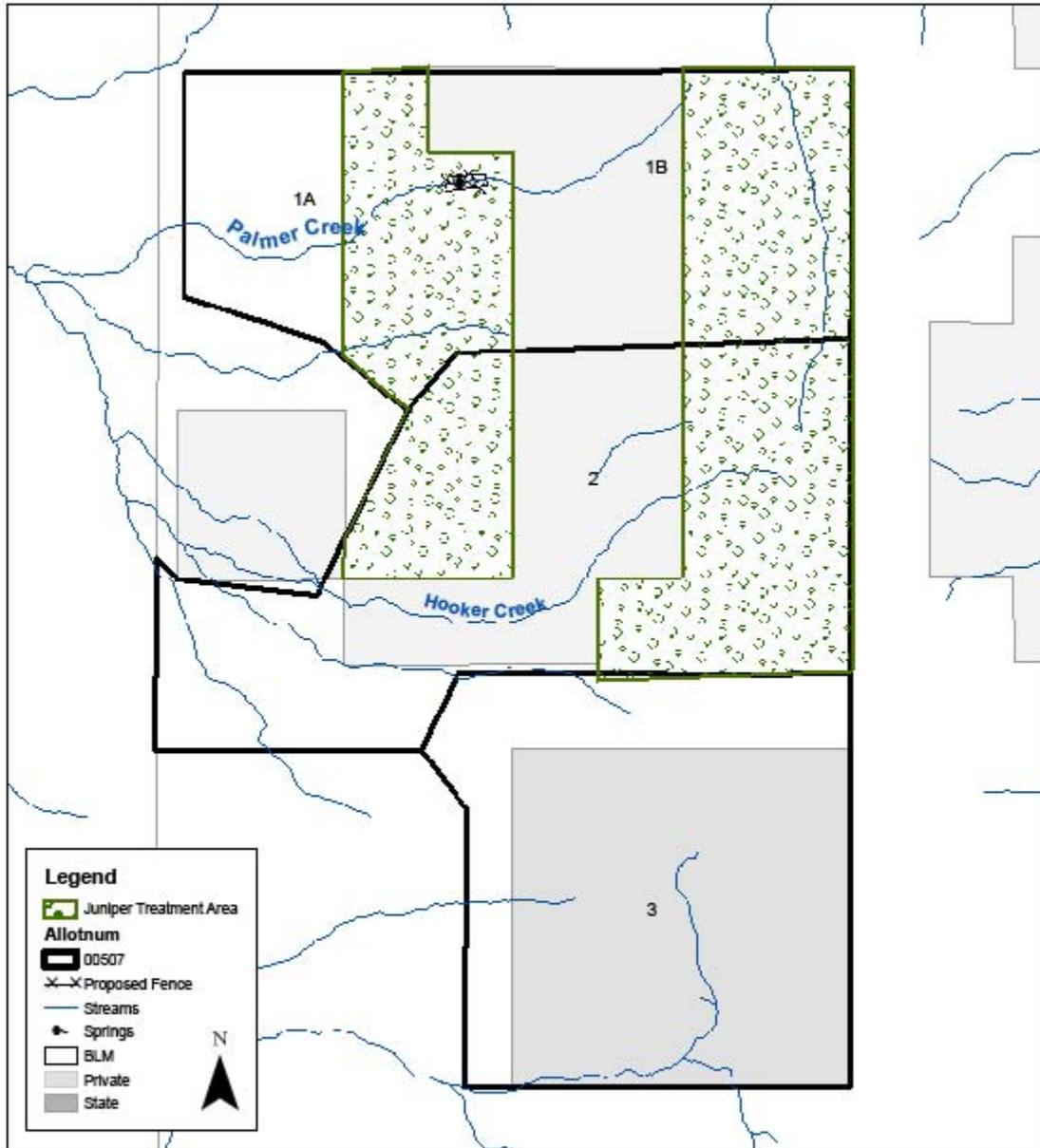


### Palmer Allotment 0507 - Alternative D



Map 4: Juniper Treatment Areas under Alternatives C & D

### Palmer Allotment 0507 - Juniper Treatment (Alternatives C and D)



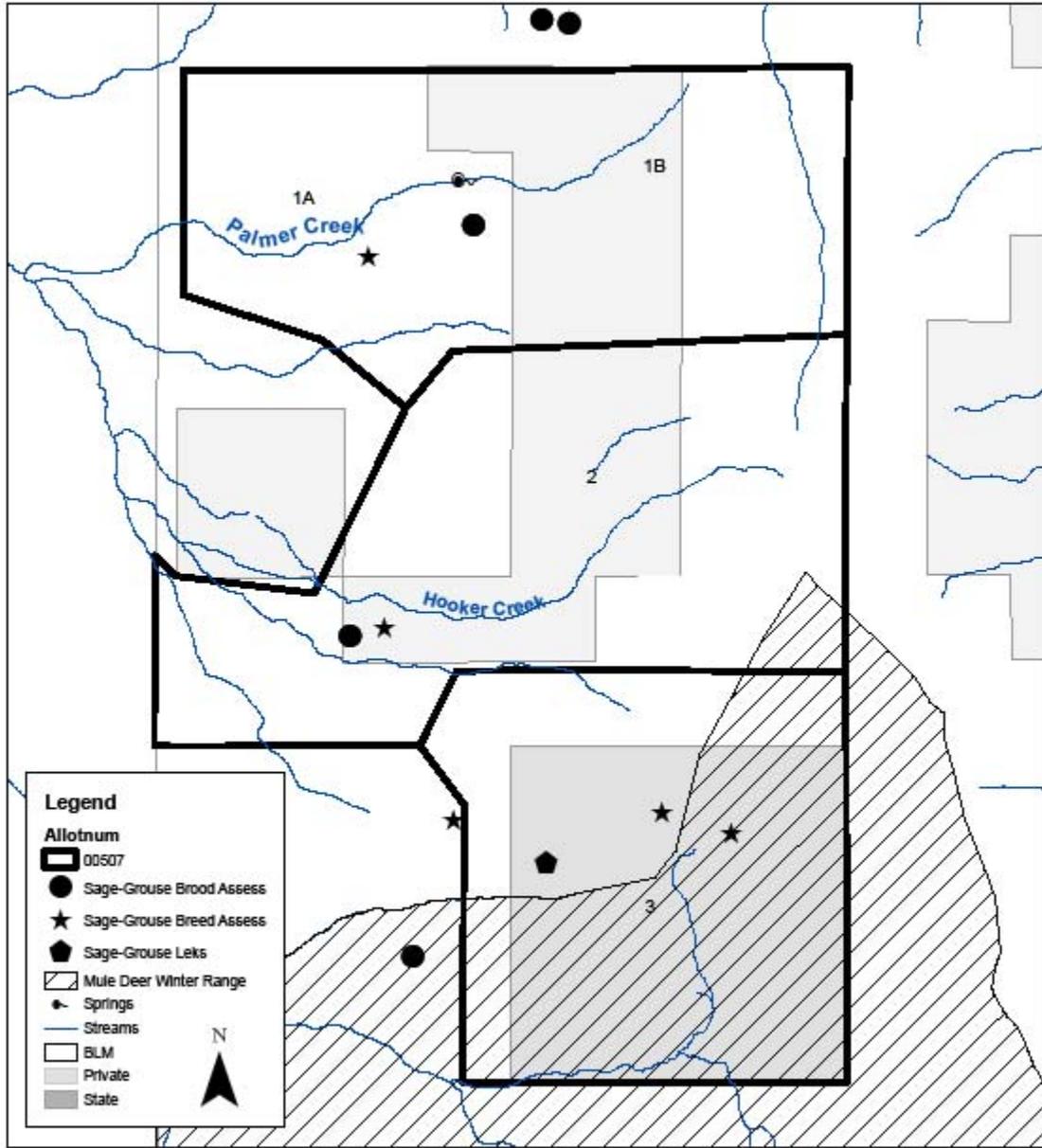
No warranty is made by the Bureau of Land Management, its employees, related to, or contributors of these data for individual use or aggregate use with other data is not guaranteed.



0 0.25 0.5 0.75 1 Miles

Map 5 – Wildlife Habitat and Assessment Sites

Palmer Allotment 0507 -  
Wildlife habitat and assessments



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