

UNITED STATES DEPARTMENT OF THE INTERIOR  
BLM, LOWER SNAKE RIVER DISTRICT

**EA Title Page**

Applicant (if any) <b>None (BLM Action)</b>		Proposed Action: <b>Grazing Permit Renewals for Trout Springs and Hanley FFR allotments</b>		EA No. <b>ID-096-2004-001</b>
State <b>Idaho</b>	County <b>Owyhee</b>	District <b>Lower Snake River</b>	Field Office <b>Owyhee</b>	Authority <b>NEPA, FLPMA &amp; Taylor Grazing Act</b>
Prepared By <b>ID Team</b>		Title <b>Various</b>		Report Date <b>November 2003</b>

**LANDS INVOLVED**

Meridian	Township	Range	Section(s)	Acres
<b>Boise</b>	<b>10 and 11 South</b>	<b>4, 5 and 6 West</b>	<b>Various - See Maps</b>	<b>29,097</b>

**Environmental Assessment**

**#ID-096-2004-001**

U.S. Department of the Interior  
Bureau of Land Management  
Lower Snake River District  
Owyhee Field Office

November 2003

UNITED STATES DEPARTMENT OF THE INTERIOR  
BLM, LOWER SNAKE RIVER DISTRICT

**Environmental Assessment No. ID-096-2004-001 Fact Sheet**

**Consideration of Critical Elements**

Critical Elements	N/A or Not Present	Applicable or Present, No Impact	Discussed in EA
Air Quality Concerns		X	
Areas of Critical Environmental Concern	X		
Cultural Resources			X
Environmental Justice (E.O. 12898)	X		
Floodplains	X		
Hazardous Substances or Solid Wastes	X		
Native American Religious Concerns	X		
Noxious Weeds, Invasive Species			X
Prime or Unique Farm Land	X		
Special Status Species			X
Water Quality Concerns			X
Wetlands/Riparian Zones			X
Wild and Scenic Rivers (Eligible)			X
Wilderness Study Areas			X
Wild Horse Herd Management Areas	X		

**BLM Staff Input/Review**

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Judi Zuckert	Recreation/Visual Resources/WSA
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# Chapter 1

## Purpose and Need for Action

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### Introduction

This Environmental Assessment (EA) analyzes the impacts of different alternatives for livestock management on the Trout Springs and Hanley FFR allotments. It also serves as a tool to help the Authorized Officer formulate an informed decision that is in conformance with the Land Use Plan objectives, in compliance with Idaho Standards for Rangeland Health, and consistent with the Guidelines for Livestock Grazing Management.

#### I. Purpose and Need for Action

The purpose of the proposed action is to authorize livestock grazing and related livestock management facilities and structures on public lands, in the Trout Springs (#0539) and Hanley FFR (#0453) allotments, in accordance with applicable laws and regulations. The proposed action is needed in order to authorize livestock grazing on these allotments in a manner that would enable resource conditions to meet, or make significant progress toward meeting the Land Use Plan objectives and Fundamentals of Rangeland Health Standards and Guidelines, while providing for a viable livestock operation and economic stability for the operator.

#### II. Relationship to EAs #ID-096-01037 and #ID-096-02030

A Proposed Decision to renew the grazing permit on the Trout Springs and Hanley FFR allotments was issued on January 2, 2002. The associated Environmental Assessment was #ID-096-01037, which analyzed four alternatives.

After reviewing public comments received on the EA and proposed decision, the Authorized Officer determined that additional alternatives were necessary. EA #ID-096-02030 was issued, which included and analyzed two additional alternatives developed after issuance of the Proposed Decision.

The Final Decision, analyzed in EA #ID-096-02030, was issued on March 12, 2002. The Decision was appealed by Hanley Ranch Partnership, Ted Payne, and Owyhee County. Western Watershed Project and the Committee for Idaho's High Desert intervened. The appeal was scheduled to be heard by the Office of Hearings and Appeal (OHA) at the end of 2002. Prior to scheduling a hearing, the OHA administrative law judge asked all parties to engage in settlement discussions. Despite intensive discussions by all parties, settlement was not reached.

By an agreement dated March 21, 2003, the appellants agreed to withdraw their appeal, provided the BLM analyzed and re-issued a new grazing decision for the management of the Trout Springs Allotment. In doing so, the BLM agreed to consider the provisions of the last draft of the Settlement Agreement as their Preferred Alternative (Alternative 3). Hence, this EA (#ID-096-2004-001) is developed in accordance with the agreement. In addition to considering the impacts

of the proposed management of the Settlement Agreement, a fourth alternative was added and analyzed, which reflects the BLM's Proposed Decision (Alternative 4).

#### **IV. Conformance with the Land Use Plan**

The Owyhee Resource Management Plan (RMP) was approved on December 30, 1999. It is the Land Use Plan (LUP) that guides public land management, including livestock grazing management, on lands administered by the Owyhee Field Office.

The Environmental Impact Statement (EIS) associated with the Owyhee RMP broadly analyzes environmental issues related to public land uses and resource allocations. Consistent with the provisions of 40 CFR 1502.20, the environmental analysis included in the EIS is incorporated in this EA (#ID-096-2004-001) by reference. This EA focuses on the environmental issues specific to renewing the livestock grazing permit on the Trout Springs and Hanley FFR allotments, and is tiered to the RMP and EIS.

The proposed action in this EA is in conformance with the RMP, as required by 43 CFR 1610.5-3(a), and is designed to achieve 'Objective LVST 1' (identified on page 23 of the RMP), which is to provide for a sustained level of livestock use, compatible with meeting other resource objectives. The proposed action is also in conformance with other RMP objectives for soils, water, vegetation, riparian and wetland areas, fisheries, special status species, recreation, visual resources, cultural resources, and wilderness study areas.

The Owyhee RMP and EIS are available on BLM's Idaho State Office Internet web site at: <http://www.id.blm.gov/>. Copies of the RMP and EIS are also available at the BLM's Lower Snake River District Office.

#### **V. Relationship to Statutes, Regulations, and Other Requirements**

##### **A. Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management**

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, on public lands administered by the BLM in Idaho, must allow for rangelands to meet or make significant progress toward meeting these Standards and Guidelines.

The Trout Springs and Hanley FFR allotment Standards and Guideline Assessment, and Determinations were completed on July 6, 2001. The assessment and determinations concluded that Standards 1, 2, 3, 4, 7, and 8 were not being met under the current grazing management. Standards 5 and 6 were not applicable for these allotments.

##### **B. The Clean Water Act and North and Middle Fork Total Maximum Daily Load (TMDL)**

In 1998, five water bodies in the Trout Springs allotment were classified by the Environmental Protection Agency (EPA), under 303(d) of the Clean Water Act, as water quality limited for the following reasons:

- North Fork Owyhee River - High temperature and excessive bacteria
- Middle Fork Owyhee River - Excessive sediment, high temperature, flow alteration
- Red Canyon Creek - Excessive sediment, high temperature, flow alteration
- Squaw Creek - Excessive sediment, high temperature, flow alteration
- Pleasant Valley Creek - Excessive sediment, high temperature, flow alteration

In 1999, the Department of Environmental Quality (DEQ) prepared the “North and Middle Fork Owyhee Sub-basin Assessment and Total Maximum Daily Load” document for the State of Idaho, identifying the water quality limited streams and their existing uses. According to this document, a Water Quality Restoration Plan would be developed for the streams.

The proposed action in this EA, includes a Water Quality Restoration Plan for the portion of the Middle Fork Owyhee Sub-basin, within the Trout Springs allotment.

## VI. The Project Area

### A. Allotment Location and Land Status

The Trout Springs allotment is located in southwestern Owyhee County, Idaho, approximately 30 miles south of Jordan Valley, Oregon. The allotment lies in the Owyhee Mountains and includes Juniper Mountain. Elevations on the allotment range from around 4900 feet near Fairylawn, to over 6700 feet at Stauffer Flat, on Juniper Mountain.

The southern rim of the North Fork of the Owyhee River canyon forms the northern boundary of the Trout Springs Allotment. The southern allotment boundary lies on the south side of Juniper Mountain, and Squaw Creek forms a portion of the western boundary. The northwest boundary was re-described by a settlement agreement for the adjacent Pleasant Valley Allotment, and the “V” pasture (pasture 4), and the associated 113 AUMs is now included in the Pleasant Valley Allotment.

The Hanley FFR allotment is located at Cliffs, Idaho, approximately 2 miles north of the Trout Springs Allotment. Elevations of this allotment range from 4,900 to 6,700 feet. The following table shows the land ownership status for both allotments:

**Table 1. Land ownership status (acres) for Trout Springs and Hanley FFR allotments (see Map 2).**

Allotment	Pasture	Ownership			Total Acres
		Federal	State	Private	
Trout Springs	1A	5,261	0	0	5,261
	1B	7,318	0	116	7,434
	2	11,854	64	98	12,016
	3	3,389	6	7	3,402
	5	207	0	1,368	1,575
<b>Total Acres on Trout Springs Allotment: 29,511</b>					
Hanley FFR	1	63	0	598	662

## B. Permit History

Current permitted grazing use for Hanley Ranch Partnership is as follows:

**Table 2. Current permitted grazing use for Hanley Ranch Partnership (in accordance with the March 12, 2002 Final Decision).**

Allotment Name & No.	Livestock		Season of Use		% Public Land	AUMs		
	Number	Kind	Begin	End		Active	Suspended	Total
Hanley FFR #0453	1	cattle	06/01	12/30	100	7	0	7
Trout Springs #0539	555	cattle	06/15	08/30	100	1,405	3,535	4,940
Trout Springs #0539	4	cattle	07/01	12/31	100	25	0	25

The current permit has been in effect for one grazing season (2003); however it has not been fully implemented. Interim management was specified to allow for a phase-in period of the new Decision in order to accommodate for time needed to construct the range improvements and allow for gradual reduction of livestock numbers. Interim management for the current permit is as follows:

**Table 3. Interim management for Hanley Ranch Partnership (current permit).**

Pasture	Livestock		Season of Use		% Public Land	AUMs
	Number	Kind	Begin	End		
1	555	cattle	06/15	07/31	100	858
2 & 3	555	cattle	08/01	09/30	100	1,113
5	4	cattle	06/01	12/31	100	28

Prior to the current permit, Hanley Ranch Partnership was authorized to graze livestock on the Trout Springs and Hanley FFR allotments according to the following schedule:

**Table 4. Grazing authorization for Hanley Ranch Partnership prior to 2002.**

Allotment Name & No.	Livestock		Season of Use		% Public Land	AUMs		
	Number	Kind	Begin	End		Active	Suspended	Total
Hanley FFR #0453	7	cattle	12/01	12/30	100	7	0	7
Trout Springs #0539	555	cattle	06/15	11/15	100	2,813	2,152	4,965

# Chapter 2

## The Alternatives

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### Description of the Alternatives

Western juniper is encroaching across much of the Trout Springs and Hanley FFR allotments. Management activities are needed to reduce juniper densities and restore the herbaceous and shrub understories. Although juniper management is crucial to the management of livestock, this EA focuses on livestock grazing systems, and management activities for juniper reduction and associated ecosystem restoration would be addressed in other environmental documents.

#### I. Alternative 1 - No Grazing (Map 1)

This alternative would not permit livestock grazing on public lands in the Trout Springs or Hanley FFR allotments. No grazing permit would be issued and no rangeland improvement projects would be constructed.

#### II. Alternative 2 - Present Situation (Map 2)

This alternative would continue livestock management in accordance with the Owyhee Field Manager's March 12, 2002 Final Decision.

##### A. Permitted Use

The following table displays the current grazing permit for Hanley Ranch Partnership, as permitted on the Trout Springs and Hanley FFR allotments.

**Table 5. Current permitted use for Hanley Ranch Partnership on Trout Springs and Hanley FFR allotments.**

Allotment Name & No.	Livestock		Season of Use		% Public Land	AUMs		
	Number	Kind	Begin	End		Active	Suspended	Total
Hanley FFR #0453	1 <sup>1</sup>	cattle <sup>2</sup>	06/01	12/30	100	7	0	7
Trout Springs #0539	555	cattle	06/15	08/30	100	1,405	3,535	4,940
Trout Springs #0539 (Fairylawn)	4 <sup>1</sup>	cattle <sup>2</sup>	07/01	12/31 <sup>3</sup>	100	25	0	25

<sup>1</sup> Livestock numbers could vary but use may not exceed 50 percent utilization.

<sup>2</sup> Kind of livestock could be either cattle or horses.

<sup>3</sup> Grazing use restricted to Pasture 5 (Fairylawn) and the amount of use may not exceed 50 percent utilization.

## B. Grazing Management

Interim Management would still be in effect for the 2004 grazing season. Cattle numbers and pasture rotation for the Trout Springs Allotment would be as follows:

**Table 6. Interim Management pasture rotation schedule for the Trout Springs Allotment.**

Pasture	Livestock		Season of Use		% Public Land	AUMs
	Number	Kind	Begin	End		
1	555	cattle	06/15	07/31	100	858
2 & 3	555	cattle	08/01	09/30	100	1,113
5	4	cattle	06/01	12/31	100	28

Beginning in 2005, the Decision would be fully implemented and the permittee would be authorized to graze in the Trout Springs and Hanley FFR allotments according to the following pasture rotation schedule (the schedule would repeat after year 4):

**Table 7. Pasture rotation schedule for Trout Springs and Hanley FFR allotments, beginning in 2005.**

Allotment	Pasture Number	Period of Use			
		Year 1	Year 2	Year 3	Year 4
Trout Springs	1	06/15 – 07/15	06/15 – 07/15	Rest	Rest
	2 <sup>1</sup>	07/16 – 08/30	07/16 – 08/30	07/16 – 08/30	07/16 – 08/30
	3	Rest	Rest	06/15 – 07/15	06/15 – 07/15
	5 - Fairylawn	07/01 – 12/31	07/01 – 12/31	07/01 – 12/31	07/01 – 12/31

<sup>1</sup> Use in this pasture may be extended until 10/15, by reducing cattle numbers to remain within the 839 AUM allocation.

## C. Permit Terms and Conditions for the Trout Springs and Hanley FFR allotments

1. You are required to properly complete, sign and date an Actual Grazing Use Report (BLM Form 4130-5) 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.
2. 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, playa, special status plant population, or water development.
3. 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.
4. You are not authorized to graze livestock in the Trout Springs, Cottonwood Spring, Middle Fork Spring, Alto Spring, Three Springs, Loveland Spring, Cottonwood Creek,

Cottonwood Headwaters and North Fork Owyhee River exclosures in the Trout Springs Allotment.

5. All cattle 6 months of age and older must be eartagged with an assigned color and number on the Trout Springs Allotment.
6. A minimum of 6-inches of median stubble height will remain on key hydric herbaceous species such as Nebraska sedge and beaked sedge at the end of the grazing season in the riparian area along the North Fork of the Owyhee River as measured at the key area shown on the Monitoring Location Map (Map 4). Failure to meet this term and condition will result in reducing the season of use by one week the following year.
7. All maintenance of range developments, within a wilderness study area, requires prior approval from the authorized officer.

**D. Short Term Objectives (referred to as Management Guidelines in the other Alternatives)**

Listed below are short term objectives, in the form of grazing use guidelines that will be implemented under this alternative. Adherence to these guidelines and the prescribed grazing management program would be likely to maintain or make progress toward meeting Rangeland Health Standards and Land Use Plan objectives. Periodic evaluation and interpretation of these guidelines could provide an indication of the potential success of the grazing management program.

1. At key areas in Pastures 1, 2, 3, and 5 on the Trout Springs and Hanley FFR allotments shown on the Monitoring Location Map (Map 4), utilization of bluebunch wheatgrass, needlegrass, bottlebrush squirreltail, Idaho Fescue or mountain brome will not exceed 50% of the current year's growth, as determined by the Qualitative Assessment Landscape Appearance Method or the Key Species Method.
2. A minimum of 4 inches of median stubble height will remain on key hydric herbaceous species such as Nebraska sedge and beaked sedge at the end of the growing season in the riparian area along Middle Fork Owyhee River, Pleasant Valley Creek, Thomas Creek, Little Thomas Creek, West Fork Red Canyon Creek, Smith Creek, Little Smith Creek, Hells Creek and Squaw Creek as measured at key areas shown on the Monitoring Location Map (Map 4).
3. In any given year, in the riparian areas along those streams listed above, browsing on woody species, including but not limited to willow, will be limited to an incidence of use not to exceed 25% on young woody plants less than three (3) feet in height as measured at key areas shown on the Monitoring Location Map (Map 4).
4. Streambank alteration attributable to livestock grazing (pugging, shearing, trails, trampling) will be less than ten (10) percent as measured at the key areas shown on the Monitoring Location Map (Map 4).

## E. Rangeland Management Projects

The following projects are currently in the survey and design phase, and would be necessary to fully implement this alternative (see Map 2). Some off road travel would be necessary for survey, design, and construction or removal of these projects; however no motorized vehicles would be used in WSAs. Some cutting of western juniper and clearing of other shrubs and brush would be required during fence construction. New fences would be built to comply with the Standard BLM 3-wire design.

1. **The Breaks Fence:** This fence would be approximately 2.75 miles long and would be constructed to divide Pasture 1 from Pasture 2. This fence would be built and maintained by the permittee and materials would be provided by the BLM.
2. **Cottonwood Spring:** This spring is located at the head of Cottonwood Creek and would be developed to provide water at the southern portion of Pasture 2. The spring development would capture no more than 50% of the flow, and trough overflow would be directed back into the drainage. The spring source and associated riparian vegetation would be protected from livestock grazing impacts by an enclosure fence (approximately ½ acre). The spring (and enclosure fence) would be developed by the BLM (materials provided by the BLM) and maintained by the permittee.
3. **Middle Fork Spring:** A spring will be developed so cattle could water at the southern portion of Pasture 1. The spring is located at the head of the Middle Fork of the Owyhee River. The spring will capture no more than 50% of the flow, trough overflow will be directed back into the drainage and the source water area of the spring and associated riparian vegetation will be protected from livestock grazing impacts. See Map 2 for location of the spring. The spring will be developed by the BLM. The materials will be supplied by BLM. The project, including enclosure fence (approximately ½ acre), will be maintained by the permittee (Hanley).
4. **Stauffer Flat Fence:** This fence will be extended approximately 1.75 miles to tie into the gathering field. This fence will be constructed to divide Pasture 1 from Pasture 3. This fence will be approximately 5.25 miles long in total. See Map 2 for general location of this fence. This fence will be a “let down” due to the heavy snows that accumulate in these areas. This fence will be built and maintained by the permittee (Hanley). Materials will be supplied by BLM.
5. **Juniper Mountain Management Fences Removal:** Approximately 5.25 miles of the Juniper Mountain Management Fences (project #5382), which form a portion of the Pasture 3 boundary, would be removed by the BLM.
6. **Cottonwood Fence:** This fence would be approximately 1.3 miles long, and would exclude approximately ½ mile of Cottonwood Creek from livestock grazing (see Map 2). This fence would be constructed and maintained by the permittee, and the BLM would provide the materials.
7. **Gather Field Fence:** This fence would be approximately 1.7 miles long and would be constructed to enlarge the current gathering field. It would exclude the headwaters of Cottonwood Creek from livestock grazing. Approximately 1 mile of the existing fence

would be removed. The construction, removal, and maintenance would be completed by the permittee, and the BLM would provide the materials.

8. Lane Fence: This fence would be a standard 4-wire fence, built in the Trout Springs Allotment on two sides of an existing reservoir (see Map 2), which would provide additional water for livestock authorized to graze on the Pleasant Valley allotment. The Pleasant Valley livestock could only use this reservoir when it is not in use by the Trout Springs Allotment livestock. The reservoir is located in a lane between the Pleasant Valley and Trout Springs allotments, and a section of land managed by Idaho Department of Lands. This fence would be approximately 1/3 mile in length and would be constructed and maintained by the Pleasant Valley Allotment permittee, with materials provided by the BLM.

## **F. Interim Management**

Immediate implementation of this alternative would require the construction of approximately 7 ½ miles of fence. It is the responsibility of the BLM to layout, design and conduct inventories of rare plants, rare animals and cultural resources; and it is the responsibility of the permittee to construct and maintain the fences.

Requiring the completion of 7 ½ miles of fence before June 15, 2004, would be unreasonable. Therefore, in order to realistically implement this alternative, it would be phased in over a two-year period. The target date for completion of all the rangeland management projects would be the end of the 2004 field season. Full implementation of this alternative would start during the 2005 grazing season.

Additionally, because this alternative reduced the Hanley Ranch Partnership permitted grazing use on the Trout Springs allotment from 2820 AUMs to 1437 AUMs, this aspect of the alternative would be phased in over a two year period as well (2003 was the first year of Interim Management).

For the 2004 grazing season, Hanley Ranch Partnership would be permitted to graze on the Trout Springs Allotment as indicated in Table 6, above.

Hanley Ranch Partnership would be allowed two weeks to move cattle from Pasture 1 to Pastures 2 and 3 (see Map 2 for location of pastures) beginning July 15. All cattle would be removed from Pasture 1 by July 31. All cattle would be removed from Pasture 2 and 3 by September 30.

## **G. Flexibility in Management**

Cattle may enter the allotment a few days prior to the 06/15 grazing date with prior approval from the Authorized Officer. Cattle may enter pasture 2 a few days prior to 07/16 to accommodate the gathering and removal of cattle from pastures 1 and 3. No cattle would be authorized beyond the 07/15 date in pastures 1 and 3.

Cattle numbers may be reduced in pasture 2, to extend the season of use beyond 08/30. The season of use in Pasture 2 could be extended beyond 08/30 if livestock numbers are reduced below the 555 maximum, so long as use does not exceed 839 AUMs, and the season of use does not exceed 10/15. This action would require prior approval from the Authorized Officer.

## **H. Allotment Boundary Adjustment**

The northern boundary of the Trout Springs allotment, *west* of the North Fork Campground, currently is the North Fork of the Owyhee River. The southern rim and existing gap fences between broken portions of the rim currently keep cattle from grazing adjacent to the North Fork of the Owyhee River. This segment of the river was also closed to grazing in the Owyhee RMP/EIS. To ensure orderly use of the range, the Trout Springs allotment boundary will be moved from the river to the top of the southern canyon rim, and the area below the rim will be closed to livestock grazing.

## **I. Assign Fence Maintenance**

The Owyhee RMP excluded livestock grazing along the North Fork of the Owyhee River from the North Fork Campground to the Idaho-Oregon state line. The Trout Springs Allotment borders the enclosure. Approximately .75 mile of fence and a cattleguard separate the enclosure area from the Trout Springs Allotment. Maintenance of the fence and cattleguard is hereby assigned to Hanley Ranch Partnership. See Map 2 for assigned maintenance area.

## **III. Alternative 3 – Preferred Alternative – Settlement Agreement (Map 3)**

This alternative proposes a 5-pasture grazing system for the Trout Springs Allotment. For the first six years, pastures 1A, 1B, and 3 would be rest rotated. Pastures 2A and 2B would be deferred annually. In year seven, the rest rotation system in pastures 1A, 1B, and 3 would be replaced with fall use, if monitoring indicates a significant improvement in riparian condition. Grazing in the Fairylawn pasture (07/01 – 12/31) and the Hanley FFR Allotment (06/01 – 12/30) would not change from the current situation.

This Alternative is consistent with the Settlement Agreement (dated March 21, 2003), with the exception of Part 2. Part 2 provided for an automatic 548 AUM increase and extended the season of use, if BLM failed to issue a Decision in a timely manner to authorize the additional use. Part 2 of the Settlement Agreement has been modified in this Alternative, in order to comply with BLM grazing regulations; thus stating that a new grazing Decision would be issued (contingent on monitoring data supporting a change) to authorize an increase of 524 AUMs and change the grazing season on the Trout Springs Allotment.

Juniper management activities are not a part of this EA. Analysis and proposed management activities related to juniper management would be addressed in future environmental documents.

## **A. Permitted Use**

The total preference for this alternative would be 4,965 AUMs in the Trout Springs Allotment. Active AUMs would be 2,665 and 2,301 AUMs would be suspended.

Before February 1, 2010 BLM would evaluate baseline greenline transects to be established in 2004, and re-evaluated in 2009. If monitoring data indicate that significant riparian improvement has been made and the additional fall use complies with Land Use Plan and fundamentals of rangeland health standards, BLM would issue a new Decision authorizing

additional fall use as described below in Section B, Grazing Management, and as shown in Table 10.

Until monitoring indicates significant improvement in the riparian areas in pastures 1A, 1B, and 3; 524 AUMs would remain scheduled as delayed (discontinued) by Term and Condition. If monitoring data collected in 2004 and 2009 indicates improvement in riparian conditions, an increase in the 524 AUMs would be analyzed in an EA. If the analysis determines that the fall use complies with Land Use Plan and fundamentals of rangeland health standards, a new Decision would be issued to authorize October use of the 524 AUMs in the rested pasture.

The following Table (8) displays the permitted use that would be authorized by this Alternative to Hanley Ranch Partnership on the Trout Springs and Hanley FFR allotments.

**Table 8. Permitted use for Hanley Ranch Partnership (Years 1 through 6), on Trout Springs and Hanley FFR allotments, under the Settlement Agreement – Alternative 3.**

Allotment Name & No.	Livestock		Season of Use		% Public Land	AUMs		
	Number	Kind	Begin	End		Active	Suspended	Total
Hanley FFR #0453	1 <sup>1</sup>	cattle <sup>2</sup>	06/01	12/30	100	7	0	7
Trout Springs #0539	555	cattle	06/01	08/09	100	1,277	2,301	4,940
	490	cattle	08/10	09/30	100	838		
	531	Cattle <sup>4</sup>	10/01	10/30	100	524 <sup>3</sup>		
Trout Springs #0539 (Fairylawn)	4 <sup>1</sup>	cattle <sup>2</sup>	07/01	12/31	100	25	0	25

<sup>1</sup> Livestock numbers could vary, but use may not exceed 50 percent utilization.

<sup>2</sup> Kind of livestock could be either cattle or horses.

<sup>3</sup> 524 AUMs (dry cattle) would be temporarily delayed (discontinued) from active use by Term and Condition, per 43 CFR 4130.3-2(f).

<sup>4</sup> Dry cattle.

## B. Grazing Management

For the first 6 years of the term grazing permit, 555 cattle would be authorized to graze between 06/01 and 08/09; and 490 cattle would be authorized between 08/10 and 09/30. The pasture rotation schedule for the first 6 years, on the Trout Springs Allotment, would be as follows:

**Table 9. Pasture rotation schedule for the Trout Springs Allotment – Settlement Agreement Alternative 3 (Years 1 through 6).**

Pasture	Authorized Use Period					
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1A	07/04 – 08/09	06/01 – 07/03	06/01 – 07/03	06/01 – 07/03	Rest	Rest
1B	Rest	Rest	07/04 – 08/09	07/04 – 08/09	06/01 – 07/03	07/04 – 08/09
2A	08/10 – 09/04	09/05 – 09/30	08/10 – 09/04	09/05 – 09/30	09/05 – 09/30	09/05 – 09/30
2B	09/05 – 09/30	08/10 – 09/04	09/05 – 09/30	08/10 – 09/04	08/10 – 09/04	08/10 – 09/04
3	06/01 – 07/03	07/04 – 08/09	Rest	Rest	07/04 – 08/09	06/01 – 07/03
Fairylawn 5	07/01 – 12/31	07/01 – 12/31	76/01 – 12/31	07/01 – 12/31	07/01 – 12/31	07/01 – 12/31

If monitoring data, collected in 2004 and 2009 (as described below in Section D), indicate significant riparian improvement has been made and the additional fall use complies with Land Use Plan and fundamentals of rangeland health standards, a new Decision would be issued to authorize use as outlined below in Table 10, and as identified in the Settlement Agreement for years 7 through 10. The new authorization would authorized 555 cattle to graze between 06/01 and 08/09; 490 cattle would be authorized between 08/10 and 09/30; and 555 dry cattle would be authorized between 10/01 and 10/30. The pasture rotation schedule, for years 7 through 10, on the Trout Springs Allotment, would be as follows:

**Table 10. Pasture rotation schedule for the Trout Springs Allotment – Settlement Agreement Alternative 3 (Years 7 through 10).**

Pasture	Authorized Use Period			
	Year 7	Year 8	Year 9	Year 10
1A	06/01 – 07/03	07/04 – 08/09	07/04 – 08/09	Repeat Rotation from Year 7
1B	10/01– 10/30	10/01– 10/30	06/01 – 07/03	
2A	09/05 – 09/30	09/05 – 09/30	09/05 – 09/30	
2B	08/10 – 09/04	08/10 – 09/04	08/10 – 09/04	
3	07/04 – 08/09	06/01 – 07/03	10/01 – 10/30	
Fairylawn 5	07/01 – 12/31	07/01 – 12/31	07/01 – 12/31	

The grazing rotation schedules, outlined above in Tables 9 and 10, would be accelerated if mid-term upland utilization levels on key species, in the respective pastures, reach or are clearly expected to reach 50% of the current year’s growth, prior to the end of the scheduled use period in any pasture, based on monitoring described in Section D, below.

**C. Permit Terms and Conditions for the Trout Springs and Hanley FFR allotments**

1. You are required to properly complete, sign and date an Actual Grazing Use Report (BLM Form 4130-5) 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.
2. 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, playa, special status plant population, or water development. Deviations closer than 1/4 mile may be authorized with prior approval of the BLM.
3. 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.
4. You are not authorized to graze livestock in the Trout Springs, Cottonwood Spring, Middle Fork Spring, Alto Spring, Three Springs, Loveland Spring, Cottonwood Creek, Cottonwood Headwaters and North Fork Owyhee River exclosures in the Trout Springs Allotment.

5. All cattle 6 months of age and older must be eartagged with an assigned color and number on the Trout Springs Allotment.
6. All maintenance of range developments, within a wilderness study area, requires prior approval from the authorized officer.
7. Livestock turnout dates are subject to Lower Snake River District (LSRD) range readiness criteria.
8. A total of 524 AUMs would be temporarily delayed (discontinued) from activation for the term of this permit to achieve management objectives for public lands and to ensure conformance with the provisions of subpart 43 CFR 4180.

#### **D. Management Guidelines**

Listed below are short-term objectives, in the form of grazing use guidelines. Achievement of these management objectives, together with the prescribed grazing management program, is expected to result in meeting, or making significant progress toward meeting, the land use plan objectives and fundamentals of rangeland health standards. Periodic evaluation and interpretation of these guidelines could provide an indication of the potential success of the grazing management program.

BLM would establish key sites for upland exclosures and long term (Nested Frequency and greenline transects), and would identify key sites for annual evaluations of short-term objectives by December 31, 2004 in consultation, cooperation, and coordination with the permittee and interested publics in accordance with BLM manuals and regulations. BLM, the permittee, and interested public may monitor use patterns for a period of one year to determine if key sites for the uplands and riparian areas are representative of the livestock use patterns and stream characteristics of each pasture; provided that, at a minimum, existing monitoring locations shall be used until establishment of key sites. All monitoring shall occur in cooperation, consultation and coordination with the permittees and interested publics or their representatives. Once key sites are established, they will be monitored in accordance with applicable BLM technical procedures for the following parameters:

1. At upland key areas identified as described above, utilization of key species (e.g. bluebunch wheatgrass, needlegrass, Idaho fescue) should not exceed 50% of the current year's growth, as measured by BLM-quantitative procedures.
2. Stubble height on key hydric herbaceous species (including mesic graminoids) would be monitored at Key Areas in riparian areas along Middle Fork Owyhee River, and Pleasant Valley, Thomas, Little Thomas, West Fork Red Canyon, Smith, Little Smith, and Squaw creeks, and at selected springs, seeps and wet meadows. Stubble height of 4 inches or greater should remain at all Key Areas at the end of the growing period for each pasture.
3. Woody browse utilization by livestock would be monitored at Key Areas on Middle Fork Owyhee River, and Pleasant Valley, Thomas, Little Thomas, West Fork Red Canyon, Smith, Little Smith, and Squaw creeks. Such utilization should not exceed 25% on new leader growth within reach of livestock at the end of the growing period for each pasture.

4. The amount of streambank alteration attributable to livestock grazing would be monitored at Key Areas on Middle Fork Owyhee River, and Pleasant Valley, Thomas, Little Thomas, West Fork Red Canyon, Smith, Little Smith, and Squaw creeks. Current year streambank alteration should not exceed 10% at the end of the growing period.

Greenline transects would be established on streams to monitor changes in greenline vegetation and streambank stability. BLM, in consultation with permittees and interested public, would locate greenline monitoring sites on Pleasant Valley Creek (in Pasture 3), Smith, Little Smith and Thomas Creeks (in Pasture 1A), and Squaw Creek, Red Canyon Creek, and Middle Fork Owyhee River in Pasture 1B in locations with potential to respond to grazing treatments. Greenline transects would initially be read in 2004 to determine baseline conditions and would, at a minimum, be read again in 2006 and 2008.

## **E. Rangeland Management Projects**

1. **The Breaks Fence:** This fence would be constructed to divide the upper pastures (Pastures 3, 1A and 1B) from the lower pastures (Pastures 2A and 2B). The fence would be approximately 2.75 miles long (see Map 3). This fence would be built and maintained by the Permittee. Materials would be supplied by the BLM. The fence line would be cleared to the extent necessary to facilitate reasonable and practical construction and maintenance. The fence would be constructed with minimum disturbance to soils and vegetation.
2. **Cottonwood Spring:** This spring would be developed so cattle can water at the southern portion of Pasture 2B. The spring is located at the head of Cottonwood Creek. The spring shall be constructed by BLM and maintained by Permittee. Water would be maintained at the source in accordance with BLM standards (see Map 3). A fence would be constructed to protect Cottonwood Creek from the source to the Gather Field fence. The fence materials and construction would be provided by BLM. The enclosure fence (approximately 5 acres), shall include a minimum of two gates and would be maintained by the BLM.
3. **Middle Fork Spring:** A spring would be developed so cattle can water at the southern portion of Pasture 1A. The spring is located at the head of the Middle Fork of the Owyhee River (see Map 3). The spring shall be constructed and maintained at the source in accordance with BLM standards. The spring would be developed by BLM, including a fence constructed to protect the spring source. The materials would be supplied by BLM. The project, including enclosure fence (approximately ½ acre), would be maintained by the Permittees.
4. **Fence Removal:** There would be no fences removed from the allotment immediately. BLM would consider removal of the fence that previously formed the pasture boundary between former pastures 2 and 3 (beginning at the “Gather Field” and terminating at the Squaw Creek Canyon WSA) in the evaluation that would be completed before February 1, 2010 (as stated above in Sections A and B, to issue a new grazing Decision).
5. **Cottonwood Fence:** This fence would be constructed to exclude areas of Cottonwood Creek that are accessible to livestock. The fence would be approximately 2 miles long and would exclude approximately 1 mile of stream (see Map 3). This fence would be

built by the BLM and maintained by the Permittee and shall include at least one gate. Cottonwood Creek below the enclosure would also be excluded from livestock.

6. Lane Fence: This fence would be located in the Trout Springs Allotment on two sides of an existing reservoir and would allow access to a watering source for cattle authorized to graze in Pastures 2A and 2B. The fence would be constructed and maintained by the Permittee, and materials would be furnished by BLM (approximately 1/3 miles).
7. Division Fence for Pastures 2A and 2B: Gap fences would be constructed to separate Pastures 2A and 2B. The fence would be constructed and maintained by the Permittee, and materials would be furnished by BLM. The fence line would be cleared as needed to facilitate reasonable and practical construction and maintenance. The fence would be constructed with minimum disturbance to soils and vegetation (approximately 1/2 mile).
8. Boundary Fences: The BLM would re-evaluate the allotment boundary fence on the Trout Springs Allotment, adjacent to Red Canyon Creek and the Middle Fork of the Owyhee River, during the 2004 grazing season, to determine whether reconstruction or relocation is required. The BLM would make a good faith effort to authorize any necessary fence reconstruction or relocation projects prior to December 31, 2004.
9. BLM would agree to construct, in each pasture, one upland enclosure (5 enclosures total, of no more than 2.5 acres in size each). It would be located as outlined in Section D, above, prior to the 2005 grazing season.

## F. Interim Management

For the 2004 grazing season, pasture rotation would be as follows:

**Table 11. Pasture rotation for 2004 interim management on the Trout Springs Allotment.**

Pasture	Period of Use
1A	06/01 – 07/03
1B	07/04 – 08/08
2 and 3	08/09 – 09/30

## G. Flexibility in Management

Livestock moves from pasture to pasture may begin five (5) days prior to and continue two (2) days after the authorized date, with at least 95% of the livestock removed by the end date of the grazing period for each pasture. The flexibility to go into pastures five days early does not apply to October 1 fall use period (as described in Section B).

No gates would be opened into the rested pasture for purposes of allowing cattle to drift through to another pasture. Cattle must be actively trailed through any rested pasture. Gates between pastures 2B and 3 may be opened during years 2, 5 and 7, beginning July 15 to allow some cattle to drift into pasture 2B prior to the authorized date.

## H. Allotment Boundary Adjustment

The northern boundary of the Trout Springs allotment, *west* of the North Fork Campground, currently is the North Fork of the Owyhee River. The southern rim and existing gap fences currently serve as barriers to livestock, preventing trailing to the river. This segment of the North Fork was also closed to grazing in the Owyhee RMP/EIS. To ensure orderly use of the range, the Trout Springs allotment boundary would be moved from the river to the top of the southern canyon rim, and the area below the rim would be closed to livestock grazing.

The northern boundary of the Trout Springs allotment, *east* of the North Fork Campground, would also be the southern canyon rim, effectively eliminating the North Fork of the Owyhee River from the Trout Springs allotment.

## I. Assign Fence Maintenance

The Owyhee RMP excluded livestock grazing along the North Fork of the Owyhee River from the North Fork Campground to the Idaho-Oregon state line. Approximately  $\frac{3}{4}$  of a mile of fence and a cattleguard separate the enclosure area from the Trout Springs Allotment (see map 3). Maintenance of the fence and cattleguard is assigned to Hanley Ranch Partnership.

## IV. Alternative 4 – Proposed Action – Rest Rotation (Map 3)

This alternative proposes 5 pastures for the Trout Springs Allotment, with a 3-pasture rest rotation and a 2-pasture deferred rotation. The grazing period for the Fairylawn pasture (Pasture 5) would be unchanged (07/01 – 12/31); and the grazing period for the Hanley FFR allotment would be changed from 06/01 – 12/30 to 06/01 – 12/31.

### A. Permitted Use

The following table displays the permitted use that would be authorized by this Alternative, to Hanley Ranch Partnership, on the Trout Springs and Hanley FFR allotments:

**Table 12. Permitted use for Hanley Ranch Partnership – Proposed Decision – Alternative 4.**

Allotment Name & No.	Livestock		Season of Use		% Public Land	AUMs		
	Number	Kind	Begin	End		Active	Suspended	Total
Hanley FFR <sup>1</sup> #0453	1	cattle	06/01	12/31	100	7	0	7
Trout Springs #0539	500	cattle	06/01	08/09	100	1,161	2,394	4,965
	377 <sup>2</sup>	cattle	08/10	10/15	100	838		
	555	Cattle <sup>4</sup>	10/01	10/30	100	547 <sup>3</sup>		
Trout Springs <sup>1</sup> #0539 (Fairylawn)	3	cattle	07/01	12/31	100	25		

<sup>1</sup> Livestock number and kind may vary, however utilization may not exceed 50%. Trailing may be authorized at times other than the specified season of use, with prior approval.

<sup>2</sup> Livestock numbers may vary provided that active AUMs are not exceeded.

<sup>3</sup> 547 AUMs would be temporarily discontinued from active use by Term and Condition, per 43 CFR 4130.3-2(f).

<sup>4</sup> Dry cattle.

The Trout Springs Allotment has 2,571 AUMs of active use. With the Grazing Management specified in Section B (below in Table 13), 1,999 AUMs would be scheduled for use (exclusive of Fairylawn).

Before February 1, 2009, BLM would evaluate baseline greenline transects to be established in 2004, and re-evaluated in 2008. If monitoring data indicates that significant riparian improvement has been made and additional fall use complies with the Owyhee Resource Management Plan and Fundamentals of Rangeland Health Standards, BLM would issue a new grazing decision authorizing additional fall use (after October 1) in rested pastures. Until then, in accordance with 43 CFR 4130.3-2 (f), a Term and Condition of the permit would temporarily delay (discontinue) the activation of the 547 AUMs (555 cattle for one month in the fall) to allow restoration of plant vigor and significant riparian improvement. If data indicates that significant riparian improvement is not being made, the AUM reduction and rest rotation schedule would continue through the term of the permit.

## B. Grazing Management

Grazing on the Trout Springs Allotment (pastures 1A, 1B, 2A, 2B, and 3) would be authorized for 500 cattle from 06/01 to 08/09, and 377 cattle (or more, provided AUMs are not exceeded) from 08/10 to 10/15. The pasture rotation schedule for years 1 through 6 would be as follows, with years 7 through 10 repeating the schedule (starting with year 1 and going through year 4):

**Table 13. Pasture rotation schedule for the Trout Springs Allotment – Alternative 4 (Years 1 through 6).**

Pasture	Livestock No. & Kind	AUMs	Authorized AUMs					
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1A	500 cattle	1,161	07/04 – 08/09	06/01 – 07/03	06/01 – 07/03	07/04 – 08/09	Rest	Rest
1B			Rest	Rest	07/04 – 08/09	06/01 – 07/03	06/01 – 07/03	07/04 – 08/09
3			06/01 – 07/03	07/04 – 08/09	Rest	Rest	07/04 – 08/09	06/01 – 07/03
2A	377 <sup>1</sup> cattle	838	08/10 – 09/04	09/05 – 10/15	08/10 – 09/04	09/05 – 10/15	09/05 – 10/15	09/05 – 10/15
2B			09/05 – 10/15	08/10 – 09/04	09/05 – 10/15	08/10 – 09/04	08/10 – 09/04	08/10 – 09/04

<sup>1</sup> Livestock number may vary provided active AUMs are not exceeded.

The grazing rotation would be accelerated through this schedule if mid-term upland utilization levels on key species, in the respective pasture, reaches or is clearly expected to exceed 50% of the current year's growth prior to the end of the scheduled use period. Monitoring would be based on the Management Guidelines.

## C. Permit Terms and Conditions for the Trout Springs and Hanley FFR allotments

1. Livestock grazing in the Trout Springs and Hanley FFR allotments would be in accordance with the grazing Decision, dated November 7, 2003.
2. You are required to properly complete, sign and date an Actual Grazing Use Report Form (BLM Form 4130-5) 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 ( $\frac{1}{4}$ ) mile away from any riparian area, spring, stream, meadow, aspen stand, playa, special status plant population, or water development. Deviations closer than  $\frac{1}{4}$  mile may be authorized with prior approval by the BLM Field Manager.
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.
5. You are not authorized to graze livestock in enclosures on the Trout Springs or Hanley FFR allotments. Enclosures include: Trout Springs, Cottonwood Spring, Middle Fork Spring, Alto Spring, Three Springs, Loveland Spring, Cottonwood Creek, Cottonwood Headwaters, and North Fork Owyhee River.
6. All cattle 6 months of age and older must be eartagged with an assigned color and number on the Trout Springs Allotment.
7. Within Wilderness Study Areas, the permittee must notify BLM of major maintenance activities (e.g., dam or spillway repair or sediment removal) prior to conducting the work.
8. Livestock turnout dates are subject to Lower Snake River District (LSRD) range readiness criteria.
9. A total of 547 AUMs would be temporarily delayed (discontinued) from activation for the term of this permit to achieve management objectives for public lands and to ensure conformance with the provisions of subpart 43 CFR 4180.

#### **D. Management Guidelines**

Listed below are grazing management guidelines. Achievement of these guidelines and the prescribed grazing management program would likely result in maintaining or making progress toward meeting the Standards for Rangeland Health and Resource Management Plan objectives. Periodic collection, evaluation, and interpretation of monitoring data could provide an indication of the potential success of the grazing management program.

BLM would establish Nested Plot Frequency and greenline transects, and identify key sites for annual evaluations of short-term upland utilization objectives. These sites would be established and identified in consultation, cooperation, and coordination with permittees and interested publics, in accordance with BLM manuals and regulations. Use patterns may be monitored for a period of one year to determine if the key sites for the uplands and riparian areas are representative of the livestock use patterns and stream characteristics of each pasture. Existing monitoring locations would be used until additional key sites are established. The following applies to existing and new monitoring locations.

1. At upland key areas sites (shown on the attached Monitoring Location, Map 4), utilization of key species (i.e. bluebunch wheatgrass, needlegrass, bottlebrush squirreltail, Idaho Fescue or mountain brome) should not exceed 50% of the current year's growth, as measured by BLM-quantitative procedures (Utilization Studies and Residual Measurements, Interagency Technical Reference 1996).

BLM would conduct utilization monitoring mid-way through the grazing period for each pasture. As stated in Section B, *Grazing Management* (page 18), if utilization meets or is expected to exceed 50% prior to the end of the pasture's grazing period, livestock rotation would be accelerated.

2. A minimum median stubble height of 4 inches should remain on key hydric herbaceous species (such as Nebraska sedge and beaked sedge) at the end of the growing season. Stubble height monitoring would occur at key sites on the greenline along the Middle Fork of the Owyhee River, Pleasant Valley Creek, Thomas Creek, Little Thomas Creek, West Fork Red Canyon Creek, Smith Creek, Little Smith Creek, and Squaw Creek (see attached Monitoring Location Map 4).
3. Woody browse utilization by livestock would be monitored at key sites identified above (in #2). Utilization should not exceed 25% on new leader growth within reach of livestock at the end of the growing period for each pasture.
4. The amount of streambank alteration attributable to livestock grazing would be monitored at the key sites identified above (in #2). Current year streambank alteration should not exceed ten (10) percent at the end of the growing period for each pasture.

Greenline transects would be established at the key sites identified above (in #2), to monitor changes in greenline vegetation and streambank stability. Greenline monitoring would be located in areas having potential to respond to grazing treatments. Transects would initially be read in 2004 to determine baseline conditions, and would, at a minimum be read again in 2006 and 2009.

## **E. Rangeland Management Projects**

The March 13, 2002 Final Decision for the Trout Springs Allotment authorized construction and removal of range developments, including many of those authorized under this Alternative. Additional new range developments include the 2A-2B Division Fence and construction of upland exclosures. The location of the Cottonwood Exclosure has changed. The southern 3 ½ miles of the Stauffer Flat fence were constructed under authorization of the 2002 Decision; therefore it is not included in this Alternative.

Off-road motorized travel for survey, design, construction, and maintenance would require prior consultation and approval by the Authorized Officer. It is anticipated that the existing road and trail system would provide sufficient access for implementation of these projects. No motorized travel would occur within WSA areas.

Based upon the survey, design, and layout of proposed fences, it may be necessary to install cattle guards where the proposed fences cross roads.

Projects would be constructed to conform to appropriate BLM standard designs, and applicable mitigation measures would be incorporated in the construction of these rangeland improvement projects.

Pending field investigations to determine site suitability and feasibility, and upon completion of all necessary clearances in accordance with the requirements of the EA-ID-096-2004-001, the following projects would be proposed for construction in the Trout Springs Allotment (see Map 3).

1. **The Breaks Fence:** This fence would be constructed to divide Pasture 2B from Pasture 3, and would be approximately 2.75 miles long. It would be constructed by the BLM. Materials and fence maintenance would be provided by the permittee (Hanley). The fence line corridor would be cleared to the extent necessary to facilitate reasonable and practical construction and maintenance. The fence would be constructed with minimum disturbance to soils and vegetation.
2. **Cottonwood Spring:** This spring is located at the head of Cottonwood Creek and would be developed to provide water at the southern portion of Pasture 2B. The spring source and associated riparian vegetation would be protected from livestock grazing impacts. Water would be maintained at the source in accordance with BLM standards. The enclosure fence would have a minimum of two gates. The spring would be developed and maintained by the BLM (materials provided by the BLM). The development and enclosure fence would be approximately 5 acres.
3. **Middle Fork Spring:** This spring is located at the head of the Middle Fork of the Owyhee River in Pasture 1A, and would be developed to provide water for the pasture. The spring source and associated riparian vegetation would be protected from livestock grazing impacts by an enclosure fence (approximately ½ acre). Water would be maintained at the source in accordance with BLM standards. The spring would be developed by the BLM (materials provided by the BLM) and maintained by the permittee (Hanley).
4. **Cottonwood Fence:** This fence would be constructed to exclude areas of Cottonwood Creek that are accessible to livestock. It would be approximately 2 miles long and would exclude approximately 1 mile of stream. The fence would include one gate, would be constructed by the BLM, and maintained by the permittee (Hanley).
5. **Lane Fence:** This fence would be a standard 4-wire fence, constructed in the Trout Springs Allotment on two sides of an existing reservoir. This lane would provide a holding area for livestock authorized to graze on the Pleasant Valley Allotment during trailing. The Pleasant Valley livestock could only use this reservoir when it was not in use by the Trout Springs livestock. The reservoir is located in a lane between the Pleasant Valley and Trout Springs allotments, and a section of land managed by Idaho Department of Lands. The fence would be approximately 1/3 mile in length and would be constructed and maintained by the permittee, with materials provided by the BLM.
6. **2A-2B Division Fence:** Gap fences would be constructed to separate pastures 2A and 2B. The fence line would be cleared as needed to facilitate reasonable and practical construction and maintenance. The fence would be constructed and maintained by the

permittees and the materials would be provided by the BLM. The fence would be constructed with minimum disturbance to soils and vegetation (approximately ½ mile).

7. Upland Study Enclosure: BLM would construct at least two upland study enclosures – one in the Cottonwood/Grave Creek (2A/2B) rotation, and one in the Middle Fork/Thomas Creek/Twin Springs (1A/1B/3) rotation. Each enclosure would be no more than 2 ½ acres in size and would have at least one gate. Enclosures would be located during the 2004 field season in cooperation with the permittee and interest public. Enclosures would be maintained by BLM.

BLM would consider removal of the fence (project number 5382) that previously formed the pasture boundary between former Pastures 2 and 3 (beginning at the Gather Field, and terminating at the Squaw Creek Canyon WSA) in the evaluation that would be completed before February 1, 2010.

The BLM would evaluate existing, authorized spring developments for any needed reconstruction and evaluate the allotment boundary fence on the Trout Springs allotment adjacent to Red Canyon Creek and the Middle Fork of the Owyhee River, and determine whether reconstruction or relocation is required. If reconstruction is needed, necessary authorizations would be completed within two years from this Final Decision. If it is determined that relocation is needed, the action would be authorized in a separate Decision, in compliance with NEPA.

BLM is currently assessing the need for western juniper management in the Trout Springs Allotment and would prepare a NEPA-compliant analysis of possible methods of juniper treatment, if necessary.

## **F. Interim Management**

Full implementation of a Final Decision is dependant upon completion of the range improvements identified under Section E (above). It is estimated that full implementation could take up to 2 years from the issuance date of a Final Decision. Therefore, interim management would be necessary for the time period prior to full implementation. Additionally, because this Alternative would reduce the Hanley Ranch Partnership permitted grazing use, on the Trout Springs allotment, from 555 cattle to 500 cattle, this aspect of the Alternative would be phased in over a two year period. All other aspects of this Alternative would be effect.

Until the Breaks Fence was constructed (estimated completion is 2005), the grazing rotation would be as described below, in Table 14. Livestock numbers would be 525, or 2,124 active AUMs, and then livestock numbers would be reduced to 500 cattle in 2006.

**Table 14. Interim management for grazing year 2004 and 2005, or until the Breaks Fence is built.**

Pasture	Livestock		2004	2005	AUMs
	Number	Kind			
Thomas Creek (1B)	525	Cattle	Rest	Rest	0
Middle Fork (1A)	525	Cattle	6/1 – 7/15	6/1 – 7/15	777
Existing Twin Springs (3)	525	Cattle	7/15 – 8/9	7/15 – 8/9	449
Existing Pasture 2	525	Cattle	8/10 – 9/30	8/10 – 9/30	898
<b>TOTAL</b>					<b>2,124</b>

The priority for fence construction would be the Breaks Fence. After its completion, the Decision would be implemented as stated in *Section B – Grazing Management* (page 17 and 18), with the season of use for Pasture 2 (Cottonwood/Grave Creek) being 8/10 to 9/30. After construction of the 2A-2B Division Fence, the decision would be fully implemented.

### **G. Flexibility in Management**

In order to meet all riparian and upland objectives, livestock moves between pastures may begin five days prior to, and continue two days after the authorized use period. At least 95% of the livestock would be removed by the end date of the authorized use period.

No gates would be opened into the rested pasture to allow cattle to drift through to another pasture. Cattle must be actively trailed through any rested pasture. Gates between Twin Springs (Pasture 3) and Grave Creek (2B) pastures may be opened during years 2 and 5, beginning July 15 to allow some cattle to drift into Grave Creek pasture (2B) prior to the authorized date.

Livestock numbers would be coordinated between BLM and the permittee, and may vary in accordance with annual grazing applications as long as the permitted use period and active AUMs are not exceeded. Variation in AUMs by pasture would be allowed to the extent in which they are consistent with flexible move dates between the pastures. Any changes to the outlined grazing rotation schedules require prior approval.

### **H. Allotment Boundary Adjustment**

The northern boundary of the Trout Springs allotment, *west* of the North Fork Campground, currently is the North Fork of the Owyhee River. The southern rim and existing gap fences currently serve as barriers to livestock, preventing trailing to the river. This segment of the North Fork was also closed to grazing in the Owyhee RMP/EIS. To ensure orderly use of the range, the Trout Springs allotment boundary would be moved from the river to the southern canyon rim, and the area below the rim would be closed to livestock grazing.

The northern boundary of the Trout Springs allotment, *east* of the North Fork Campground, would also be the southern canyon rim, effectively eliminating the North Fork of the Owyhee River from the Trout Springs allotment.

## **I. Assign Fence Maintenance**

The Owyhee RMP excluded livestock grazing along the North Fork of the Owyhee River from the North Fork Campground to the Idaho-Oregon state line. Approximately  $\frac{3}{4}$  of a mile of fence and a cattleguard separate the enclosure area from the Trout Springs Allotment (see map 3). Maintenance of the fence and cattleguard is assigned to Hanley Ranch Partnership.

## **V. Alternatives Considered but Dismissed from Further Analysis**

In addition to the Proposed Decision (Alternative 4) and three other alternatives evaluated in this document, the Interdisciplinary Team has considered other approaches to livestock management on the Trout Springs and Hanley FFR allotments, as discussed in the previous EAs referred to in this document.

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# Chapter 3

## Affected Environment

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### Introduction

This chapter describes the present condition of the environment, in and surrounding the Trout Springs and Hanley FFR allotments. Although the March 2002 Decision was implemented during the 2003 grazing season, the existing conditions of the environment remain essentially unchanged from the descriptions outlined in EAs #ID-096-01037 and #ID-096-02030.

### I. Upland Vegetation

#### A. Trout Springs Allotment

Upland plant communities, on the Trout Springs Allotment, are primarily dominated by western juniper. Some mountain shrub communities, consisting of mountain mahogany and bitter cherry, with a needlegrass understory, are still intact, but are being invaded by western juniper and beginning to exhibit shrub mortality. Western juniper and mountain shrubs contribute the most to the site production across the majority of the Allotment.

Mountain big sagebrush communities are limited on the Trout Springs Allotment, occurring intermixed with mountain mahogany, with needlegrass as the primary understory species. In some areas the sagebrush and antelope bitterbrush are showing mortality.

Low sagebrush communities occur throughout the Trout Springs Allotment, on shallow soil sites, and contain Idaho fescue and bluebunch wheatgrass in the understory.

Rangeland Health Assessments indicate that plant communities, throughout the Allotment, are declining in health and species diversity. It is noted that native perennial bunchgrass populations (such as needlegrass, bluebunch wheatgrass, and Idaho fescue) are declining or are absent in some communities, and perennial forbs are limited in plant community understories.

#### B. Hanley FFR Allotment

Upland plant communities, on the Hanley FFR, are dominated by mountain big sagebrush or low sagebrush, with Idaho fescue or bluebunch wheatgrass dominating the understory. Currently, these shrub communities contain a strong canopy of sagebrush and increaser species such as Sandberg's bluegrass (*Poa secunda*) and Bulbous bluegrass (*Poa bulbosa*), while Idaho fescue and bluebunch wheatgrass are declining in the understories.

Rangeland Health Assessments indicate that the mountain big sagebrush communities are healthy, with good integrity and plant vigor; however, the low sagebrush communities exhibit poor vigor and weak production among interspatial plants.

## II. Special Status Plant Species

### A. Threatened or Endangered Plant Species

No federally listed threatened or endangered plant species are known to occur on the Trout Springs or Hanley FFR allotments; although the U.S. Fish and Wildlife Service 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 stream habitats, but it has not been found during surveys of riparian and wetland areas in southwest Idaho, nor has it been found in these allotments. Most riparian and wetland areas in these allotments meet the definition of "disqualified" habitat (USFWS 1998) due to past disturbance, improper hydrologic regime, and/or improper associated species. This species will not be discussed further.

### B. Sensitive Plant Species

Two plant species classified as "Type 3 BLM sensitive" (Mud Flat milkvetch and dimeresia) are known to occur on the Trout Springs Allotment. At the time the populations were found, potential and actual impact were not recorded; however, both occurrences are accessible to livestock and can be affected by livestock management. The following observations were made by BLM staff, and are on file with BLM and CDC (Idaho Department of Fish & Game Conservation Data Center).

Mud Flat milkvetch (*Astragalus yoder-williamsii*) has been recorded in Pasture 2 on the Trout Springs Allotment. This plant occurs on fine loamy soils in low sagebrush and mountain big sagebrush communities. In Idaho, this species is restricted to the upper forks of the Owyhee River, and one small area in Nevada.

Mud Flat milkvetch is a small perennial (usually less than 2 inches in height), and cattle rarely consume it. However, occurrences in Idaho have been adversely impacted by dense concentrations of cattle, specifically when water or salt supplements are placed close to the plants; less severe impacts to Idaho occurrences have been reported as trampling and habitat degradation (Mancuso & Moseley 1993).

The second species, dimeresia (*Dimeresia howellii*), is a diminutive annual that occurs in dry, rocky, cindery, or gravelly soils in desert foothills or drier mountains. It occupies small micro-sites that have different soil structure and vegetation than the surrounding area. This species is known to occur on approximately 10 sites in Owyhee County, and is also found in Oregon, Nevada, and California. Dimeresia is found to occur in Pasture 5, of the Trout Springs allotment; however, due to imprecise location data, it is unknown if the plants occur on private land or lands administered by the BLM.

Generally, cattle do not congregate in these dry, rocky, or gravelly areas on the allotment due to the lack of forage; however they can cause damage to dimeresia plants and habitat by trailing through a population, particularly if water or salt are placed nearby.

Based on new information collected in 2003, two other special status plants have a high probability of being found in the Trout Springs allotment, although they are not presently known to occur there. One-flowered goldenweed (*Haplopappus uniflorus* var. *howellii*), a

“Type 4 BLM sensitive species”, occurs in wet or dry, often alkaline meadows, streambanks, and around springs. The other plant is a “BLM Watch species”, short-lobed penstemon (*Penstemon seorsus*). This plant occurs on dry, rocky sagebrush slopes and is found in Malheur, Harney, and Owyhee Counties. Generally, livestock impacts to this plant across its range are unknown. These plants were found in the Pleasant Valley allotment to the east, about 1 ½ miles from pasture 2.

No sensitive plant species are known to occur on the Hanley FFR allotment. This list is not inclusive; other habitats that support special status species may be present in these allotments.

### **III. Wildlife and Special Status Animal Species**

The Trout Springs and Hanley FFR Allotments contain spring, summer, and fall habitat for mule deer, elk, and pronghorn antelope. Additionally, Hanley FFR provides winter habitat for deer, and possibly elk. Both allotments provide habitat for a large diversity of raptors, other non-game birds, mammals, reptiles, and amphibians.

Rangeland Health Assessments and other monitoring, within the Trout Springs Allotment, have indicated that the mountain big sagebrush and mountain shrub communities are being reduced and replaced by western juniper, and understory perennial grasses and forbs are decreasing. The widespread invasion of western juniper, into these community types, provides habitat for a diversity of wildlife and special status species; however it also adversely affects habitat for a diversity of other species, such as those associated with the sagebrush steppe (sage grouse, sage thrashers, Brewer’s sparrows, sage sparrows, pygmy rabbits and others), by reducing the structure of the plant communities and by limiting cover and production of desirable shrub and herbaceous species.

Assessments have also indicated that approximately 14 percent (5.7 miles) of riparian habitat, within the Trout Springs Allotment, is in proper functioning condition. Monitoring has indicated that most accessible stream reaches and unfenced springs, seeps, and wet meadows are heavily grazed and trampled, resulting in degraded habitat conditions for dependent wildlife and special status animal species such as redband trout, Columbia spotted frogs, sage grouse, neotropical migratory birds, bats and others.

Historic levels of livestock use and fire suppression activities have contributed to the expansion of western juniper. High levels of forage utilization, by livestock, further reduces the quantity and quality of herbaceous vegetation, which limits the quantity and quality of nesting habitat for ground nesting species, and may be limiting the production and availability of forbs, seeds and insects that are critical food items for sage grouse, neotropical migratory birds and bats (insects only), and for small mammals that are critical prey for most raptors.

#### **A. Threatened or Endangered Animal Species**

No threatened or endangered species are known or expected to occur within these allotments. One federal candidate species, listed as threatened or endangered (the Columbia spotted frog), is known to occur within the Trout Springs Allotment along upper Cottonwood Creek and is likely to occur in other drainages.

## B. Special Status Animal Species

A number of special status animal species (classified as either BLM "Sensitive Species" or State of Idaho "Species of Special Concern") are known or likely to occur within the Trout Springs and Hanley FFR allotments. These species include prairie falcon, ferruginous hawk, greater sage grouse, calliope hummingbird, willow flycatcher, loggerhead shrike, sage sparrow, Brewer's sparrow, fringed myotis, spotted bat, Townsend's big-eared bat, pygmy rabbit, western toad, common garter snake, and redband trout.

## IV. Riparian and Aquatic Resources

Portions of the streams listed below flow across public lands administered by BLM, within the Trout Springs Allotment. Livestock grazing management is an important factor contributing to riparian and aquatic resource conditions on many of these streams.

The following table shows the number of stream miles on BLM-administered lands in the Trout Springs Allotment:

**Table 15. Miles of streams on the Trout Springs Allotment.**

Stream Name	Miles of BLM administered stream within the Trout Springs Allotment	Pasture where stream occurs
Bear Creek*	0.06	1
Hells Creek & tributaries	3.01	1
Little Smith Creek & tributaries	2.95	1
Middle Fork Owyhee River*	0.71	1
Middle Fork Owyhee River	2.60	1
North Fork Owyhee River	2.06	2
Salt Creek	0.73	1
Smith Creek & tributaries	3.90	1
Squaw Creek # tributaries	10.36	1, 2, 3
Thomas Creek & tributaries	3.46	1
West Fork Red Canyon Cr	2.70	1
Cottonwood Creek*	5.02	2, 3
Grave Creek*	1.16	2
Little Thomas Creek*	0.27	3
Little Thomas Creek	1.51	3
Pleasant Valley Creek & tributaries	3.37	3
Granite Spring Creek Tributary	0.25	1
Twin Springs Ridge Creek	<u>3.69</u>	2, 3
	47.81	

\*intermittent stream

There are no streams on public lands within the Hanley FFR Allotment.

Squaw Creek forms a portion of the boundary between Pasture 3 and the Pole Creek Allotment (0635); the North Fork of the Owyhee River canyon rim forms a portion of the boundary between pasture 2 and the Cliffs Allotment (0501); and the West Fork of Red Canyon forms a portion of the boundary between Pasture 1 and the Bull Basin Allotment (0540).

Proper functioning condition assessments (PFC) have been completed for the following streams: Pleasant Valley Creek, Squaw Creek, the Middle Fork of the Owyhee River, Hell Creek, Smith

Creek, Little Smith Creek, Thomas Creek, Little Thomas Creek, West Fork Red Canyon Creek, Salt Creek, Granite Springs Tributary, Twin Springs Creek, Payne Cabin Creek and Payne Cabin Tributary. Assessments were conducted in 1996, 1998, 1999 and 2000; and in 1998 and 1999, digital aerial imagery data was collected for Smith Creek, Little Smith Creek, Thomas Creek, and Pleasant Valley Creek.

## A. Pasture 1

The source for most streams, within the Trout Springs Allotment, consists of multiple springs. Pasture 1 contains four (4) developed springs, and one (1) reservoir, which has no associated riparian habitat. The most noted spring on the allotment is Trout Springs, which is contained in a 66-acre enclosure, within this pasture. Three Springs has a small enclosure fence, which is in poor condition.

- 1. Squaw Creek:** The assessments for Squaw Creek (SQC) indicate that 3.60 miles are functioning at risk with no apparent trend. These reaches are dominated by early seral or increaser species, and deep-rooted decreaser species, when present, lack vigor. There is generally insufficient vegetation to adequately protect the streambanks. The width/depth ratio of the stream is out of balance, and the riparian area is not widening, nor has it reached its potential extent. Flood plain and channel characteristics are inadequate to dissipate energy, and lateral and vertical stream movement is occurring as a result of stream bank damage by livestock.
- 2. Hells Creek:** The assessments for Hells Creek (HLL) indicate that 3.05 miles are functioning at risk with no apparent trend. These reaches are dominated by early seral or increaser species, and deep-rooted decreaser species, which are present, lack vigor. There is generally insufficient vegetation to adequately protect the streambanks. The width/depth ratio of the stream is out of balance with the surrounding landscape, and the riparian zone appears as if it is not widening, nor has it achieved its potential extent. In places, the floodplain and channel characteristics are not adequate to dissipate energy, and vertical and lateral movement is occurring.
- 3. Salt Creek:** The assessments for Salt Creek (SAL) indicate that 0.73 miles are functioning properly. This stream reach is well protected by deep-rooted hydric species that show good vigor. The floodplain, above the bank-full mark, is inundated in relatively frequent events. Sinuosity, width/depth ratio, and gradient are in balance with the landscape setting. The riparian-wetland area is widening or has achieved its potential extent, and the upland watershed is not contributing to riparian degradation. Floodplain and channel characteristics are adequate to dissipate energy, and lateral stream movement is associated with natural sinuosity.
- 4. Middle Fork of the Owyhee River:** The assessments for the Middle Fork of the Owyhee River (MFO) indicate 2.60 miles are functioning at risk with no apparent trend. This stream lacks hydric species in the plant communities; and there is inadequate riparian vegetation to protect the banks, resulting in bank instability throughout much of the reach. The riparian-wetland is apparently not widening, nor has it reached its potential extent. The floodplain and channel characteristics are not adequate to dissipate energy, and lateral stream movement lacks hydric species at the streams edge.

5. **Smith Creek:** The assessments for Smith Creek (SMI) indicate 3.84 miles are functioning at risk with no apparent trend. These reaches are dominated by early seral or increaser species. There is generally insufficient vegetation to adequately protect the streambanks, and point bars remain unvegetated. The width/depth ratio of the stream is out of balance with the landscape setting; and the riparian zone appears to be contracting. Lateral and vertical stream movements are occurring, or have the potential to move, due to the presence of inactive Beaver dams.
6. **Little Smith Creek:** The assessments for Little Smith Creek (LSM) indicate 2.95 miles are functioning at risk with no apparent trend. These reaches are dominated by early seral or increaser species; and deep-rooted decreaser species, when present, lack vigor. There is generally insufficient vegetation to adequately protect the streambanks. The width/depth ratio of the stream is out of balance with the surrounding landscape, in places; and the riparian-wetland has not achieved its potential extent. Floodplain and channel characteristics are not adequate to dissipate energy along some portions of the reach.
7. **Thomas Creek:** The assessments for Thomas Creek (THO) indicate that 3.46 miles are functioning at risk with no apparent trend. These reaches are dominated by early seral or increaser species, and deep-rooted decreaser species, when present, lack vigor. There is generally insufficient vegetation to adequately protect the streambanks; while the width/depth ratio of the stream appears to be out of balance with the landscape setting, and in places, may not have reached its potential extent.
8. **West Fork of Red Canyon Creek:** The assessments for West Fork Red Canyon (WRC) indicate that 2.70 miles are functioning at risk with no apparent trend. These reaches are dominated by early seral or increaser species; and deep-rooted decreaser species, when present, lack vigor. There is generally insufficient vegetation to adequately protect the streambanks, and point bars are not being revegetated. The width/depth ratio appears to be out of balance with the landscape setting, and the riparian-wetland area appears to be contracting, in places. In portions of this reach, outside the enclosure, lateral movement appears to be associated with livestock use. Within the enclosure, lateral cutting and down-cutting are occurring in association with log gabions.
9. **Granite Spring Tributary:** The assessment for Granite Spring Tributary (GRT) indicates that approximately 0.25 miles are functioning at risk with no apparent trend. This reach has diverse age distribution and species composition, and the species that are present indicate maintenance of riparian soil moisture. Streambank vegetation is comprised of plants or plant communities that have root masses capable of withstanding high streamflow events, and the riparian-wetland plants exhibit high vigor. There is adequate riparian-wetland vegetative present to protect streambanks and dissipate energy during high flows. Some point bars are not revegetating with riparian-wetland vegetation. The floodplain is inundated at infrequent intervals, and the width/depth ratio is out of balance with the landscape setting. The riparian-wetland area has not achieved its potential extent. The watershed is not contributing to riparian degradation, and floodplain and channel characteristics are adequate to dissipate energy. The stream is not laterally stable, in some parts of this reach, however it is vertically stable. There is some excessive erosion/deposition occurring.

## B. Pasture 2

This pasture contains nine (9) developed springs that have not been fenced, or have fences that are in poor condition. It also contains ten (10) reservoirs, most of which have no associated riparian habitat; however, Graves Creek has a small amount of riparian habitat downstream from the existing reservoir. Mid-channel bars are present in portions of these reaches as a result of accelerated lateral stream movement.

- 1. Squaw Creek:** The assessments for Squaw Creek (SQC) indicate that 3.14 miles are functioning at risk with no apparent trend. These reaches are dominated by woody riparian species, and the herbaceous component is primarily early seral, with species such as *Bromus tectorum* (cheatgrass) being common. Plant vigor is poor, and many point bars are exposed. Some streambanks lack sufficient deep rooted vegetation to protect them from erosion.
- 2. Twin Springs Creek:** The assessment for Twin Springs Creek (TWI) indicates that 1.74 miles are not functioning properly. This reach lacks diversity of age class and species composition of riparian-wetland vegetation, and the riparian zone is dominated by shallow-rooted upland species. Plants lack vigor and provide inadequate cover to protect banks and dissipate energy during periods of high flow. The floodplain is inundated at infrequent intervals, and the width/depth ratio is out of balance with the landscape setting. The riparian-wetland area has not achieved its potential extent, nor is it widening; and the watershed is, in places, contributing to riparian degradation. Floodplain and channel characteristics are adequate to dissipate energy. The stream is not laterally stable in some parts of this reach, however, it is vertically stable. There is some excessive erosion/deposition occurring.
- 3. North Fork of the Owyhee River:** The assessment for the North Fork of the Owyhee River (NFO) indicates that 0.3 miles are functioning properly, 0.7 miles are functioning at risk with no apparent trend, and 1.06 miles are non-functioning.

The stream reach that is properly functioning is well vegetated with dense bank stabilizing species, adequate to protect the banks during high flows, and well armored with rock and shrubs. In areas, it is gravelly, preventing establishment of graminoids. It is evident that the riparian-wetland area has achieved its potential extent, and that the upland watershed is not contributing to riparian degradation.

The stream reach that is functioning-at-risk lacks appropriate plant communities to protect the stream banks during high flow, and floodplain and channel characteristics are inadequate to dissipate energy. There is a lack of age class diversity and vigor in plant species, while many point bars remain unvegetated. It is evident that the riparian-wetland area has not achieved its potential extent.

The stream reach that is non-functioning lacks appropriate plant communities to protect the stream banks during high flow. The existing plant communities lack vigor and age class diversity of woody species, while a portion of the reach is lacking hydric species altogether. The channel width-depth ratio is high and point bars remain unvegetated. The riparian-wetland area is not widening, nor has it achieved its potential extent.

- 4. Cottonwood Creek:** The assessments for Cottonwood Creek (CTW), in the lower portion of this pasture, indicate that 2.98 miles are functioning properly. An additional 0.72 miles is functioning at risk, with no apparent trend. Those stream reaches that are functioning properly are shrub dominated with diverse age class distribution and species composition for maintenance, which provide stabilization for streambanks. There is sufficient vegetation to protect the banks and dissipate energy during periods of high flow. There are no upland watershed conditions contributing to riparian degradation. The stream is laterally and vertically stable, and point bars are revegetating.

The reach that is functioning at risk lacks age class diversity of the herbaceous component, and point bars are exposed. The herbaceous component appears to exhibit poor vigor. The width/depth ratio of the stream is out of balance with the landscape setting. The riparian-wetland area does not appear to be widening, nor has it reached its potential extent.

Functioning condition information is not available for the headwaters of Cottonwood Creek, in the gathering field. Photographs taken during field exams in the fall of 2000, indicate that shrubs and herbaceous species have received heavy use, with no re-growth occurring. Vigor of plants is poor, and there is no evidence of species recruitment, resulting in limited age classes and structure within the plant community. The photographs show that significant trampling and streambank damage has occurred. There is also evidence of head-cutting and down-cutting of the stream channel, which has resulted in a reduction of the riparian area.

### C. Pasture 3

Pasture 3 has one (1) developed spring and no stock watering reservoirs.

- 1. Squaw Creek:** The assessments for Squaw Creek (SQC) indicate that 1.79 miles are functioning at risk with no apparent trend. The herbaceous component lacks diversity and vigor. In many areas there is insufficient riparian-wetland vegetative cover to protect the banks during periods of high flow, and some point bars remain unvegetated. Vertical and lateral instability is resulting from livestock use. Stream banks are lacking vegetation in places.
- 2. Little Thomas Creek:** The assessments for Little Thomas Creek (LTH) indicate that 1.62 miles are functioning at risk with no apparent trend. The herbaceous component of the riparian community lacks species diversity, and bare banks and unvegetated point bars are common.
- 3. Pleasant Valley Creek:** The assessments for Pleasant Valley Creek (PVC) indicate that 1.45 miles are functioning at risk with no apparent trend. This reach lacks species diversity of the herbaceous component, and riparian-wetland species exhibit poor vigor. The width/depth ratio of the stream is out of balance with the landscape setting, and head-cuts have developed at springs and down-cutting is occurring.
- 4. Payne Cabin Creek:** The assessments for Payne Cabin Creek (PAY) indicate that 0.9 miles are non-functioning. This reach lacks diversity of age class and species composition of riparian-wetland vegetation. The riparian zone is dominated by shallow

rooted upland species; and plants lack vigor and provide inadequate cover to protect banks and dissipate energy during periods of high flow. The floodplain is not frequently inundated, and the width/depth ratio is out of balance with the landscape. The riparian-wetland area is not widening, nor has it reached its potential extent. Floodplain and channel characteristics are not adequate to dissipate energy, and lateral movement is accelerated.

5. **Payne Cabin Tributary:** The assessments for Payne Cabin Tributary (PAT) indicate that 1.02 miles are functioning at risk with no apparent trend. This reach lacks diversity of age class and species composition of riparian-wetland vegetation. The riparian zone is dominated by shallow rooted upland species; and plants lack vigor and provide inadequate cover to protect banks and dissipate energy during periods of high flow. The floodplain is not frequently inundated, and the width/depth ratio is out of balance with the landscape. The riparian-wetland is not widening, nor has it reached its potential extent.
6. **Twin Spring Creek:** The assessment for Twin Spring Creek (TWI) indicates that 1.95 miles are functioning at risk with no apparent trend. Some portions of this reach have diverse age distribution and species composition, however it is lacking in others. Species present indicate maintenance of riparian soil moisture, in some areas. Streambank vegetation is comprised of plants or plant communities that have root masses capable of withstanding high streamflow events, in some areas. The width/depth ratio is out of balance with the landscape setting. Floodplain and channel characteristics are adequate to dissipate energy, and the stream is laterally and vertically stable. There is some excessive erosion and deposition occurring.

In riparian-wetland areas, plants exhibit poor vigor, and there is inadequate riparian-wetland vegetation present to protect banks and dissipate energy during high flows. Some point bars are not re-vegetating with riparian-wetland vegetation; and the floodplain is inundated at infrequent intervals. Riparian-wetland areas have not achieved potential extent, nor are they widening. In places, the watershed is contributing to riparian degradation.

## V. Water Quality

It is the responsibility of the State of Idaho, Division of Environmental Quality (DEQ), to designate streams within the state, as water quality limited. A list of water quality limited streams (referred to as the 303(d) list), and the problems leading to their inclusion, is published regularly by the state. The Lower Snake River District BLM is currently using the '1998' 303(d) list.

The following streams are within the Trout Springs Allotment, and are on the '1998' State of Idaho 303(d) list, as water quality limited streams: the Middle Fork of the Owyhee River, from the headwaters to the Oregon/Idaho state line; Pleasant Valley Creek, from the headwaters to the North Fork of the Owyhee River; and Squaw Creek, from the headwaters to the Oregon/Idaho state line.

In December of 1999, the Idaho Department of Environmental Quality issued the "North and Middle Fork Owyhee Draft Subbasin Assessment and Total Maximum Daily Load" document. Findings of this document, applicable to Trout Springs Allotment, include: salmonid spawning is

an undesignated existing use in all assessed tributaries to the North Fork Owyhee River; stream temperature criteria were exceeded for the water bodies within Trout Springs Allotment; sediment standard criteria were not identified as being exceeded; and the North Fork Owyhee River does not currently exceed bacteria criteria.

Streams, which have designated beneficial uses, are addressed in IDAPA 16.01.02.140. All streams within the Trout Springs Allotment have general use designations for secondary contact recreation, agricultural water supply, wildlife habitat, and aesthetics; and the Middle Fork of the Owyhee River has been assigned additional designated uses such as domestic water supply, cold water biota, salmonid spawning, primary contact recreation, and special resource water. At the time the Idaho Department of Environmental Quality prepared the “North and Middle Fork Owyhee Subbasin Assessment and Total Maximum Daily Load” document, Pleasant Valley Creek and Squaw Creek were identified as having additional beneficial uses of ‘cold water biota’, and ‘salmonid spawning’.

Flow alteration, sediment and thermal modification are the primary pollutants in the Middle Fork of the Owyhee River, Pleasant Valley Creek, and Squaw Creek, as addressed in the “North and Middle Fork Owyhee Subbasin Assessment and Total Maximum Daily Load”. Sediment sources in this portion of the subbasin are, in part, due to road crossings; however a major contributor is more likely streambank damage (trampling) as the result of livestock use.

In order for the Middle Fork of the Owyhee River, Pleasant Valley Creek, and Squaw Creek to meet standards for cold water biota and salmonid rearing, they would require a 25-58% reduction in thermal energy; and salmonid spawning standards would require an increase in shade (stream cover). In 1991, 1993, and 1997, Idaho Game and Fish personnel observed redband trout in Red Canyon Creek during their population surveys. During the 1997 stream inventory, conducted by BLM, redband trout were observed in Thomas, Little Thomas, Smith, and Little Smith Creeks.

Sampling of fecal coliform bacteria in the Middle Fork of the Owyhee River (collected in T.11S., R.5W., Sec.26, on the Trout Springs Allotment), conducted in October 1995 and October 1997, showed >2,400 colonies/100ml of water, for both years. This analysis indicates that the secondary contact recreation criteria (<800 colonies/100ml of water) are not being met for the Middle Fork Owyhee River on the Trout Springs Allotment.

Tributaries of Deep Creek and Red Canyon Creek, with headwaters originating on the Trout Springs Allotment, were not considered in the “North and Middle Fork Owyhee Subbasin Assessment and Total Maximum Daily Load”, however thermograph data indicates that these streams probably do not meet the criteria for salmonid spawning, and do not appear to meet the criteria for cold water biota.

## **VI. Soils**

Soils within the Trout Springs and Hanley FFR allotments are diverse; which is mainly due to position on the landscape and sources of parent material. These soils occur on structural benches, foothills, and mountains. They formed in alluvium and residuum, from welded rhyolitic tuff, that has been influenced by volcanic ash. The soils are very shallow to deep, and well drained. With elevations that range from 4,900 to 6,700 feet, these soils have a xeric soil moisture regime and a mesic or frigid soil temperature regime.

The Hat and Cleavage series are representative of the soils in Pastures 1, 2, and 3, on the Trout Springs Allotment. These soils are generally loamy, with high amounts of coarse fragments, both on the surface and in the profile. The Paynecreek and Bluecreek series are representative of the soils in the Hanley FFR.

Accelerated rates of soil erosion have been documented in Pastures 2 and 3, and on the Hanley FFR Allotment. In these areas, the erosional features are a result of both long-term processes and more current activities.

In many areas on the Trout Springs and Hanley FFR allotments pedastalled interspatial bunchgrass and surface flow patterns are the leading indicators of the ongoing erosional process. Where livestock tend to congregate (riparian areas, water developments, salting areas, or at certain gates), the mechanical damage to the soil surface by hoof action is present.

The hazard of erosion on these soils, from water, is slight to moderate, with the exception of the soils that occur on slopes greater than 30 percent. Soils that occur on slopes of 30 percent or greater, have a moderate to high hazard of erosion from water. The hazard of erosion from wind is low.

In Pastures 1, 2, and 3, on the Trout Springs Allotment, the invasion of western juniper has had a negative influence on hydrologic cycles, and vegetative community composition and diversity. Where invasion is heavy, the juniper is highly competitive in terms of available soil moisture, nutrients, and understory photosynthetic needs. This has resulted in reduced shrub frequency, bunchgrass compositional changes and growth form, and possibly stream flows. The occurrence of juniper invasion, in combination with resource consumptive uses, has had long-term negative impacts to these systems.

## **VII. Cultural Resources**

Cultural resources are recognized as fragile, irreplaceable resources that represent an integral part of our nation's heritage. The Owyhee RMP allows cultural resource protection for potential socio-cultural, public, conservation and scientific uses. The potential of a stratified site to reveal information regarding human adaptation to specific environments and ecosystems is considerable. For example, the analysis of soils, pollen and faunal materials can indicate what climatic changes have taken place over time, as well as what types of wild game were available for subsistence and what plant species were utilized by native people.

BLM records indicate that cultural resources, in the Trout Springs and Hanley FFR allotments, consist of a variety of site types, including lithic scatters and a rock-shelter. The area was used for camping and subsistence activities, such as food gathering and hunting. Ancestors of the Shoshone and Paiute peoples inhabited this area. Historically, the area has been used for livestock grazing (which is also a current use). Today, the area is also utilized for recreational purposes.

## **VIII. Visual Resource Management (VRM)**

The Visual Resource Management classes, within the Trout Springs Allotment, consist of the following: Class I (553 acres), Class II (970 acres), Class II- Interim Management Policy (IMP)

(6,418 acres), Class III (2,649 acres), and Class IV (18,235 acres). Within the Hanley FFR Allotment, there is primarily VRM Class III (55 acres), with some Class II (8 acres) lands.

The objective for Class I areas, is to preserve the existing character of the landscape, and construction of new rangeland facilities is not permitted. Within VRM Class II areas, the objective is to retain the existing character of the landscape, and limited construction of new rangeland facilities may be permitted, outside Wilderness Study Areas. Visual Resource Management Class II-IMP areas are treated the same as in VRM Class II areas. In Class III areas, changes to the characteristic landscape should be moderate; and in Class IV landscapes, the level of change can be high.

Within the Trout Springs Allotment, the natural character of some landscapes (within VRM Class I, II, and II-IMP areas) has been degraded by heavy livestock use. As noted in the Trout Springs Allotment Assessment, these heavy uses result in bare ground, streambank alteration, and inadequate diversity and structure of plant communities.

## **IX. Recreation**

Some areas of the Trout Springs Allotment are located within the North Fork Owyhee Backcountry Special Recreation Management Area (SRMA) (1,232 acres), and the North Fork Canyon SRMA (51 acres). The main recreational activities within the North Fork Owyhee Backcountry SRMA include: backpacking, horseback riding, camping, hunting, fishing, sightseeing, and nature study; and the main recreational activities within the North Fork Canyon SRMA include: camping, whitewater boating, hunting, fishing, sightseeing, and nature study.

There were an estimated 1,400 recreational visits to the North Fork Backcountry SRMA in fiscal year 2001. Most of the recreational use of the North Fork Canyon SRMA occurs outside the Trout Springs Allotment.

The Owyhee Uplands National Back Country Byway traverses approximately 4 miles of the Trout Springs and Hanley FFR allotments. The Byway is a 101-mile improved gravel road between Grandview, Idaho and Jordan Valley, Oregon, and serves as a scenic drive and staging point for trips into the scenic and primitive backcountry areas of Owyhee County. An estimated 10,000 visitors traveled the Byway in fiscal year 2001.

Other special recreational areas on the Trout Springs Allotment include Trout Springs (located on Juniper Mountain), which is a popular camping site used by campers and hunters. This area is fenced and excluded from livestock grazing. In other recreational areas, which are not excluded from livestock grazing, concentrations of livestock have caused deterioration of natural settings, which detract from recreation experiences. Examples of deteriorated settings include areas on the tablelands south of the North Fork of the Owyhee River, and areas along Cottonwood Creek, Squaw Creek, Twin Springs Creek, Payne Cabin Creek, and the headwaters of the Middle Fork Owyhee River.

Off-highway motor vehicle (OHV) designations, in the Trout Springs Allotment, include 13,417 acres, where travel is limited to existing roads and trails; 14,124 acres where travel is limited to designated roads and trails; and 1,283 acres that are closed to motorized access. Within the Hanley FFR Allotment, motorized travel is primarily limited to existing roads and trails (60 acres). OHV regulations apply to permitted uses, as well as general public use.

## **X. Wilderness**

Portions of two Wilderness Study Areas (WSAs) are included within the boundaries of the Trout Springs Allotment. These WSAs include: 1,067 acres of the North Fork Owyhee WSA (which encompasses 41,025 acres total); and 6,301 acres of the Squaw Creek Canyon WSA (which encompasses 10,780 acres).

Regulations administering management of WSAs specify that they be managed in a manner that does not impair their suitability for preservation as wilderness. Wilderness values include: solitude, naturalness, opportunities for primitive and unconfined recreation, and the presence of special features that enhance wilderness values.

Special features recognized for the North Fork Owyhee WSA include exceptional scenic quality, because of its spectacular sheer-walled canyons and rock outcrops highlighted with gnarled juniper. Sensitive wildlife species were also included as special features in the North Fork Owyhee WSA recommendation. Squaw Creek Canyon's wilderness characteristics include naturalness, solitude, and opportunities for primitive and unconfined recreation.

Livestock grazing in WSAs is considered a "grandfathered" use, that may continue in the same manner and degree in which it was being conducted on October 21, 1976, if it does not cause unnecessary or undue degradation of the lands and their resources. Currently, there are several fences, three spring developments, and two reservoirs within the WSA portions of the Trout Springs Allotment.

Monitoring reports depict heavy livestock grazing, trampled streambanks, impaired stream functionality, and reduced vegetation in areas within the WSAs. This has a negative effect on the wilderness values of naturalness and scenic quality, and also has a negative effect on recreationists' experiences of wilderness.

## **XI. Social and Economics**

The BLM does not have access to financial or business records for permittees that graze livestock on the Trout Springs and Hanley FFR allotments; therefore it is difficult to provide a detailed discussion of individual ranch operations, including economic and social conditions.

In addition to use on the Trout Springs and Hanley FFR allotments, Hanley Ranch Partnership has interest in the entity that holds the grazing permit on the Nickel Creek Allotment (72,000 total acres). Hanley Ranch Partnership also holds permits or has interest in permits administered by the BLM in Vale, Oregon.

As part of the July 1999 Final Environmental Impact Statement (EIS), for the Owyhee Resource Management Plan (RMP), "typical" ranch operations were developed utilizing producer panels in Owyhee County (see pages III-61 to III-68). Hanley Ranch Partnership does not appear to fit into the description of any of the models; however, the Jordan Valley Ranch Model seems most appropriate, although it was developed for smaller operations, and the seasons of use vary somewhat.

This model ranch is a cow/calf operation centered in southwest Idaho. Calves are born in February and March, run with the cows on public rangeland through the fall, and are marketed in November. This is a family owned operation that is supplemented by seasonal hired labor, during the irrigation season.

Cattle are turned out on public rangeland in April, and graze a mixture of BLM and state rangeland until fall, when they are moved back to private lands. Feeding hay to the cattle, for winter, begins in December and runs through calving season until the livestock are turned out onto public rangelands. About half of the total AUMs for livestock come from federal and state rangelands, and the other half comes from private rangelands, crop aftermath, and various feeding operations.

For the purpose of this document, there are two general ways ranches may be directly impacted by the decisions and policies of federal and state agencies. First, there may be changes in the total number of AUMs of grazing authorized on public or state lands; second, there may be a change in the seasonal availability of forage use authorized on public lands.

For a detailed discussion of the economic and social conditions in Owyhee County, and the region influenced by public lands in the area, see the July 1999 EIS (pages III-60 to III-73).

# Chapter 4

## Environmental Consequences

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### Introduction

This chapter discusses the environmental consequences of each alternative listed in Chapter 2, of this document and is organized by Alternative, followed by the analysis and discussion for each resource. The analysis that follows is based on monitoring data collected by BLM, as well as actual use reports provided by the permittee. The permittee reports actual livestock numbers and periods of use annually. This actual use report does not include unauthorized use from neighboring allotments.

The Trout Springs allotment includes rough, steep, broken topography that is dominated by western juniper, mountain mahogany and other mountain shrubs. These features make it difficult to locate and gather livestock. Actual use reports indicate that some cattle remain after the authorized use period, due to these landscape characteristics and the inability to locate and gather the livestock. Due to the complexity of the analysis, each alternative analyzed in this EA is considered with the assumption that all livestock are moved by the authorized dates.

### I. Alternative 1 – No Grazing (Map 1)

#### A. Upland Vegetation

This alternative would be expected to have positive effects on the upland vegetation in the Trout Springs and Hanley FFR allotments. The absence of any livestock grazing would allow the plants to complete their growth cycles without significant grazing impacts. This would result in improved health and vigor of these plants and should allow significant progress to be made toward meeting the Standard for Rangeland Health in these allotments.

#### B. Special Status Plant Species

The effects of this alternative would be in compliance with Idaho Standards for Rangeland Health. This alternative would probably benefit special status plants that are accessible to livestock, including Mud Flat milkvetch and dimeresia. The risk of adverse impacts from livestock use would be eliminated. The rocky habitat of short-lobed penstemon would probably not be affected.

#### C. Wildlife and Special Status Animals

This alternative would have a positive effect on most wildlife and special status animal species. The lack of livestock grazing would result in increased forage and cover and eliminate trampling and other physical disturbance associated with livestock grazing. This would be especially true within and adjacent to riparian areas, where livestock use is generally most concentrated.

## **D. Riparian and Aquatic Resources**

This alternative would have positive effects on riparian and aquatic resources for those stream reaches accessible to livestock in the Trout Springs Allotment. The lack of livestock grazing would result in improved herbaceous and woody riparian vegetation composition, vigor, cover, structure, density, and root mass. These improved vegetative conditions would result in improved buffering of erosive forces and filtering of sediment and increased shade. Streambank stability, water quality, and riparian and wildlife habitat would improve; while water infiltration and bank storage would increase. This alternative would allow progress toward meeting Standards 2 (Riparian Areas and Wetlands) and 3 (Stream Channel/Floodplain) for Rangeland Health.

## **E. Water Quality**

This alternative would have positive effects on water quality in the Trout Springs Allotment, where streams are accessible to livestock. The absence of livestock would result in elimination of streambank trampling by livestock, which would result in less sediment deposition in the streams. There would also be a reduction in fecal contamination of the waters.

Cover and density of riparian vegetation would improve, creating better filters for sediment, which would result in streambank development, and narrowing and deepening of stream channels. This, in conjunction with improved stream cover (shade), would reduce water temperature and comply with the 1999 TMDL allocations assigned by DEQ to water quality impaired streams within the allotment.

## **F. Soils**

Overall effects to the soil resource would be positive, and watershed health would be improved. This would allow for progress toward meeting the Rangeland Health Standard for watersheds in these allotments.

Under this alternative, the phenological needs of the key plant species, in all pastures, would be met on a yearly basis. By excluding grazing on the perennial grass species, there would be improvements in plant vigor and production, along with subsequent reproduction and establishment. Increases in canopy cover, surface litter, above ground structural material, and fibrous root matter would aid in protecting the soil from the forces of both wind and water erosion. Site productivity would be increased. Mechanical damage to the soil surface from livestock hoof action would cease.

Watershed impairment, due to western juniper expansion and shrub density, would continue. The build up of fine fuels in the understory would increase the possibility of natural wildfire playing more of a role in management of this ecological system (site dependent). By allowing key plant species to meet their phenological growth needs each year, they would better compete with juniper for moisture and nutrients; thereby offsetting some of the negative impacts associated with juniper expansion. However, the likelihood of arresting juniper and/or shrub invasion in many areas, without deliberate control measures, is minimal. Juniper invasion is greatest in the loamy range sites, where livestock utilization is more prevalent, and least in the shallow/clayey range sites.

## **G. Cultural Resources**

Any direct impacts of grazing on cultural resources by livestock, including trampling or breakage of artifacts, would be avoided under this alternative. This alternative would also result in improvement in vegetative cover and density, providing a stabilizing effect, while contributing to the preservation of cultural resources.

## **H. Visual Resource Management**

This alternative would have a positive impact on visual resources. There would be improvements in vegetative condition and diversity, as well as improvements in streambank structure and stability, and elimination of trampling and other evidence of livestock use, which would enhance scenic quality. This would result in more primitive and natural landscapes.

## **I. Recreation**

This alternative would have a positive effect on recreation. Improvements in scenic quality, discussed above, would have a positive effect on recreationists' experiences. Improvements in stream function and water quality would eventually lead to improved opportunities for fishing. Improvements in wildlife habitat would lead to increased opportunities for consumptive and non-consumptive wildlife-related recreation. Reduction of livestock-related impacts would make previously undesirable areas attractive to recreationists for camping. Improvements in scenic quality, recreational opportunities, and wildlife habitat would also enhance the wild and scenic river values of the North Fork of the Owyhee River.

## **J. Wilderness**

This alternative would have a positive effect on wilderness. Without substantial grazing, the wilderness study areas would return to more primitive and natural conditions. Scenic quality, which is one of the special features of the North Fork Owyhee WSA, would improve as vegetative cover and diversity increases, streambank stability improves, and livestock trampling is eliminated. Habitat conditions for redband trout, another special feature of the North Fork Owyhee WSA, would improve as livestock-related impacts to the river and riparian habitat were reduced.

## **K. Social/Economic**

If the grazing permit was not issued for the Trout Springs and Hanley FFR allotments, there would likely be a negative economic impact to the ranching community of Jordan Valley and Owyhee County, as a whole, and the permittee that grazes livestock on the allotments. However, because the BLM does not have extensive knowledge of the permittee's ranching interests, alternative grazing options, or access to the permittee's financial and business records, it is impossible to quantify the effect.

There may be a potential for the displaced grazing use to be absorbed into other operations, where the permittee has interest. The permittee may also find alternative rangelands to graze his livestock, or feed hay; however this would result in greater payments out from the ranch. Another option would be to sell the livestock, which would impact the way of life for the permittee and may result in sale of the ranch.

In general, other social and economic impacts from this alternative would be similar to those described in the July 1999 EIS for the Owyhee RMP (pages IV-244 to IV-245).

## **II. Alternative 2 – Present Situation (Map 2)**

This alternative is currently being phased in over a two-year period (2003 was the first year), which provides a more reasonable economical and operational pace for Hanley Ranch Partnership. This alternative would be fully operational in 2005.

### **A. Upland Vegetation**

This alternative, overall, would have a positive effect on the upland vegetation, which should result in making significant progress toward meeting the Native Plant Communities Standard for Rangeland Health.

#### **1. Pastures 1 and 3**

Under this alternative, livestock use in Pastures 1 and 3 (Map 2) would occur in the early summer (6/15 to 7/15) for two years, followed by no grazing (rest) for two years. This grazing use should result in moderate utilization levels, and opportunities for the primary forage species to complete their growth cycles, thus meeting their phenological requirements.

The level of use in Pastures 1 and 3 would be approximately 567 AUMs, which is a reduction in AUMs when compared to the historic long-term average actual use of 1,570 AUMs. Over the mid- to long-term, this should result in improvements in vigor and production of the key forage species, and result in greater availability of plant litter for site protection and nutrient cycling.

The ‘No Grazing’ Alternative would result in the quickest recovery of upland plant communities. The ‘Present Situation’ would improve upland plant communities faster than both alternatives 3 and 4 because it limits critical growing season grazing and applies lighter stocking rates.

#### **2. Pasture 2**

In Pasture 2, grazing use would occur every year, after seed-ripe of key forage species. The proposed grazing level within this pasture would be the same as the long-term average actual use of 838 AUMs.

Active management of cattle (such as herding) would be necessary to ensure moderate use levels (between 40 and 60% utilization) and proper livestock distribution. Moderate use levels, coupled with grazing after seed-ripe should result in improvement in vigor and production of key species, and greater availability of plant litter for site protection and nutrient cycling.

The permittee recently drilled a well on private land, at Fairylawn, which will provide an additional water source for livestock grazing on public lands in Pasture 2, further assisting with better livestock distribution and mitigating potential heavy use in areas of historic livestock congregation.

### **3. Hanley FFR Allotment and the Fairylawn Pasture (Trout Springs Allotment)**

Under this alternative, the Hanley FFR Allotment and Fairylawn Pasture of the Trout Springs Allotment would be grazed at the discretion of the permittee, and utilization would be limited to 50%. If grazing occurred during June on a continuous basis, which is the primary growth period of key forage species, it could result in poor plant vigor and a loss of species diversity. However, the 50% utilization limit should help alleviate the impacts.

If grazing use occurs after the critical growing season for key forage species, it would allow for key perennial grass species to complete their phenological requirements and result in improvements in vigor and production. This would allow progress toward meeting the Standards for Rangeland Health.

### **4. Rangeland Improvement Projects**

The construction of rangeland improvement projects, which includes two spring developments, approximately eight miles of fence construction, and the removal of 6.25 miles of fence, would have a negative impact on the vegetation during construction. The negative impacts would result from driving over the vegetation and from the cutting of juniper boughs and trees, as well as the placement of spring collection head-boxes, pipeline, and troughs.

Although the negative impact could be severe in some areas, the overall impact would be localized and temporary. Livestock impacts such as trailing along new fences may also cause some damage to the vegetation, but this impact would not be significant.

## **B. Special Status Plant Species**

Overall, it is unknown if the effects of this alternative would be in compliance with Idaho Standards for Rangeland Health for special status plants. It is expected that trampling impacts that are occurring, if any, to the Mud Flat milkvetch population in Pasture 2 would continue. This would probably also be true for impacts, if any, to dimeresia in Pasture 5. The wetland habitats of one-flowered goldenweed would probably improve under this alternative. Habitats of short-lobed penstemon would likely be unaffected. If adhered to, the term and condition requiring a minimum distance of  $\frac{1}{4}$  mile between supplement sites (including salt) and special status plant sites would minimize trampling impacts from concentrating livestock.

Special status plants were not found at Middle Fork or Cottonwood Springs in 2003, or in the vicinity. The effects of the other proposed projects are unknown; site-specific field examinations would be conducted prior to their construction. Impacts to special status plants found during the field exam may be eliminated or minimized to an acceptable level.

## **C. Wildlife and Special Status Animals**

Both upland and riparian habitats should improve under Alternative 2. The reduction in stocking rate, lack of early spring use, and two out of four years rest in Pastures 1 and 3 would result in rapid improvement of desirable plant species vigor and production, and increased ground cover and structure. These improvements should enhance habitat for most

wildlife by increasing nesting and hiding cover, forage, seed production, and insect populations. This alternative would also reduce physical disturbance to populations or habitats during the majority of the breeding and nesting seasons.

The lack of hot season grazing, coupled with frequent rest, should result in rapid improvement of riparian habitats. Annual deferred grazing use of Pasture 2 should result in steady improvement of upland habitats; while fencing, to exclude livestock from riparian habitats, should result in rapid and complete recovery.

The construction of approximately 8 miles of pasture and exclosure fences would result in some minor, short-term impediments to big game movements and disturbance during construction; as well as some minor, long-term increases in wildlife mortality from collisions and entanglement. These fences should, however, facilitate the implementation of the grazing system, which is expected to result in rapid and long-term improvement in habitat conditions for most wildlife and special status species.

The removal of 6.25 miles of fence should offset some of the adverse impacts associated with the new fence construction, by removing barriers to wildlife movement and reducing any death losses that might have occurred, if they had been left in place. The development of Cottonwood and Middle Fork springs would result in some loss of water from these systems, which could result in adverse impacts to dependent riparian vegetation, wildlife, and special status species. However, overflow from the troughs would be directed back into the drainage, which should limit the loss of water from the system.

Although not yet documented at Cottonwood spring, Columbia spotted frogs are known to occur along Cottonwood Creek, within 1/2 mile downstream; and development of this spring would likely adversely affect its suitability as an over-winter hibernacula for this federal Candidate species. Both springs and associated riparian habitat would be fenced to exclude livestock, and should result in a significant improvement in the condition of riparian habitat for most dependant species, including spotted frogs.

#### **D. Riparian and Aquatic Resources**

This alternative would improve riparian and aquatic resources in the Trout Springs Allotment over the long-term. In Pastures 1 and 3, the stocking rate reduction, coupled with alternating two years of late spring/early summer grazing (June 15 to July 15), and two years of rest, would facilitate recovery of riparian/aquatic habitats.

The availability of palatable herbaceous plants in the uplands, during the early portion of authorized use, could induce livestock to spend more time out of the riparian zone, thus reducing the use of herbaceous riparian plants, as well as reducing the amount of soil compaction and bank trampling. However, livestock use of herbaceous vegetation would still be high during the years the pastures are grazed. With the earlier season of use, livestock browsing of woody riparian plant species would be reduced, thereby providing for greater growth during the critical growth period, and improving survival of young plants during the years the pastures are grazed. Density, cover, and vigor of riparian plants, particularly young willows, would improve during the consecutive years of rest, resulting in an overall upward trend in condition of riparian/aquatic habitats.

Improvement of riparian/aquatic habitats in Pasture 1 would be slower than that in Pasture 3. The western slopes of Juniper Mountain are very steep and densely vegetated with juniper trees, making removal of livestock from Pasture 1 extremely difficult, particularly during the summer. If all livestock were not removed from Pasture 1 by July 15, high levels of livestock use during the two consecutive grazing years, would likely negate the improvement in riparian/aquatic habitats made during the two consecutive years of rest. Topography of Pasture 3 is more conducive to herding livestock, although dense juniper cover and steep slopes hinder effective livestock herding in this pasture.

Under the current situation, Pasture 2 would be annually grazed during the summer (July 16 to August 30). Accessible portions of Cottonwood Creek would be fenced to eliminate livestock use, and therefore riparian/aquatic habitats in this pasture would either continue to function properly or improve in condition over the mid- to long-term. By grazing Pasture 2 in the summer, livestock use of the pasture may change because upland vegetation would be cured and less palatable. Livestock may access additional areas not previously used in Cottonwood Creek and the North Fork of the Owyhee River.

By monitoring livestock use patterns and managing livestock to meet short-term resource objectives for riparian vegetation, this alternative would insure that riparian/aquatic habitats would not be negatively impacted. Additionally, maintaining a 6-inch median stubble height on herbaceous vegetation along the North Fork of the Owyhee River (as a permit term and condition) would insure that changes in the season of use, in Pasture 2, does not result in livestock use shifting to riparian areas along the river. Similarly, use of riparian plants by livestock would be monitored in Pastures 1 and 3 to determine the effectiveness of removing livestock by July 15.

The construction of new fence and the removal of 6.25 miles of fence would have little impacts on riparian areas, except those portions of Cottonwood Creek being excluded from livestock grazing. Those areas would benefit greatly.

In pastures 1, 2, and 3, improved riparian vegetative conditions would result in increased buffering of the erosive forces of high stream flows and increase filtering of sediment, allowing for bank stabilization and aggradation, as well as increase stream shading. Streambank stability would improve, water infiltration and bank storage would increase, and water quality and fishery habitat would improve over the long-term. This alternative would meet or make significant progress toward meeting Standard 2 (Riparian Areas and Wetlands) and Standard 3 (Stream Channel/Floodplain) for Rangeland Health in the Trout Springs Allotment. No riparian or aquatic resources are present on public lands in Pasture 5, or the Hanley FFR Allotment.

## **E. Water Quality**

This alternative would improve water quality in streams on the Trout Springs Allotment over the long-term. The amount of streambank trampling by livestock would be reduced, due to the elimination of most hot-season grazing use (July) and by providing periods of rest. This would result in a reduction of sediment deposition and fecal contamination in streams.

Improved riparian vegetation conditions would increase filtering of sediment, resulting in streambank development and the narrowing and deepening of stream channels. This, in conjunction with increased stream cover (shade), would reduce water temperature and

comply, or make progress toward compliance with the 1999 North and Middle Fork Owyhee Sub-basin TMDL, and Standard 7 (Water Quality) for Rangeland Health.

## **F. Soils**

Overall impacts to the watershed and soil resource (being closely tied to the vegetative community and soil surface stability) would be positive, and watershed health would improve (especially with anticipated progress in the health of riparian systems). Areas currently not fully meeting the Standards for Rangeland Health would show progress toward meeting those standards.

Under the current system, rest and deferment are incorporated into the grazing plan, along with reduced stocking rates. Pastures 1 and 3 would be grazed in early summer, two out of four years, and rested the other two. This would reflect positively on watershed health, by increasing plant community component values (plant composition, density, structure, cover, and litter). Pasture 2 would be grazed in the later stages of the key forage species phenological period every year. This would benefit the watershed aspects of these pastures, in terms of the plant community component, similar to pastures 1 and 3.

The Hanley FFR Allotment would be grazed at the discretion of the permittee with utilization limited to 50%. Without knowledge of the grazing system the permittee would utilize, the impacts to the watershed resource cannot be fully addressed. If the 50% utilization limit were adhered to, the effects would be positive.

Mechanical impacts to the soil surface from livestock hoof action would continue where livestock tend to trail and congregate. Many of the erosional features that have been documented in these allotments (pedastalling is an example), have developed over many years and under older grazing management systems. The current system would, over time, make progress toward healing these processes where they are evident.

Water developments would affect the soil resource by concentrating use, resulting in trampling (causing soil compaction and/or physical structural breakdown), stripping of vegetative cover, and opening areas to invasive species. The impacts would be confined to the immediate area around the development, and dissipate radially out from the development. Where these types of developments improve the distribution of livestock and prevent negative impacts to the riparian corridors (by keeping livestock on the upland areas), there would be an overall benefit.

Actions associated with fence construction and/or removal would have minimal impacts on the soil resource. Fences often create localized areas where livestock tend to trail or bunch up at gates. These actions can lead to soil trampling, vegetative overuse, and can foster invasive species colonization. Where range improvements aid in the distribution and management of livestock, a positive impact would occur on the watershed as a whole.

Watershed impairing effects, due to western juniper invasion, would continue. By allowing the key forage species to meet their phenological growth needs, these plants can better compete with juniper for moisture and nutrients, thereby offsetting some of the negative impacts associated with juniper invasion.

## **G. Cultural Resources**

This alternative has potential to improve range conditions and preserve the integrity of cultural resources. Additional impacts of the range improvement projects would be addressed on a project-by-project basis for compliance with Section 106 of the National Historic Preservation Act.

## **H. Visual Resource Management**

This alternative would have positive impacts to visual resources over the long term. Anticipated improvements in vegetative cover, both in riparian areas and in the uplands, would enhance scenic quality and result in more primitive and natural landscapes. The proposed fences and spring developments would be constructed in Class IV VRM areas, where that type of construction is acceptable. There would be no significant change to visual resources on the Hanley FFR Allotment.

## **I. Recreation**

There would be some positive and some negative impacts to recreation under this alternative. Improvements in scenic quality, due to improved vegetative condition, would benefit scenic quality, which would provide positive effect for recreationists' experiences. This improvement would be somewhat cyclic, as vegetative conditions observable to recreationists would vary dramatically depending on the time of visitation, relative to when the area had been grazed.

A reduction in livestock stocking levels and duration of use would reduce livestock impacts, making areas desirable for recreation. Improved habitat conditions for wildlife would lead to improved opportunities for wildlife viewing, hunting, fishing, and nature study. Areas where livestock congregate would continue to negatively affect recreationists' experiences, both during and after the grazing season.

The proposed fences would be an impediment to cross-country travel for recreationists on foot and on horseback; however this would be partially offset by the removal of other fences within the allotment. Improvements in scenic quality, recreational opportunities, riparian conditions, and wildlife habitat would slightly enhance wild and scenic river values of the North Fork of the Owyhee River.

There would be no change to recreation opportunities on the Hanley FFR Allotment under this alternative.

## **J. Wilderness**

This alternative would have primarily positive impacts to wilderness values in both the North Fork Owyhee and Squaw Creek Wilderness Study Areas. Shortened seasons of use, reduced stocking levels, and 2 out of 4 years of rest from grazing in Pastures 1 and 3, would reduce livestock-related impacts to naturalness. Removal of approximately 2.5 miles of fence within Squaw Creek WSA would increase naturalness in that area.

Scenic quality, which is one of the special features of the North Fork Owyhee WSA, would improve with improvements in vegetative condition. Habitat conditions for redband trout,

another special feature of the North Fork Owyhee WSA, would improve as livestock-related impacts to the North Fork watershed are reduced. The wilderness value of naturalness would continue to be negatively affected in portions of wilderness study areas where livestock congregate.

## **K. Social/Economic**

Under this alternative, the permittee and the BLM would have immediate, direct costs for construction and removal of rangeland improvement projects. Direct costs to the permittee are estimated to be \$22,000. Direct costs to the BLM are estimated to be \$31,325.

There could be some impact to the permittee due to changes in the authorized use period. Although the season of use (grazing permitted as late as October 15) is similar to alternatives 3 and 4, this alternative would require decreased cattle numbers to remain within the reduced active use (1,405 AUMs). Because the BLM does not have extensive knowledge of the permittee's ranching interests, alternative grazing options, or access to the permittee's financial and business records, it is impossible to quantify the effect. There may be a potential for the displaced grazing use to be absorbed into other operations, where the permittee has interest. The permittee may also find alternative rangelands to graze his livestock, or feed hay; however this would result in greater payments out from the ranch.

This alternative would require the permittee to conduct timely pasture rotations and complete livestock removal at the end of the authorized grazing period(s). This would require that the permittee, spend more time gathering and moving cattle than under the previous management system, however this alternative requires less pasture moves (one between-pasture move) than alternatives 3 and 4 (three between pasture moves).

In general, other social and economic impacts from this alternative would be similar to those described in the July 1999 EIS for the Owyhee RMP (pages IV-295 to IV-297).

## **III. Alternative 3 – Preferred Alternative – Settlement Agreement (Map 3)**

The Settlement Agreement provides for an increase in permitted use and season of use, in years 7 through 10 of the term permit, if significant riparian improvement occurs as a result of improved grazing management (in years 1 through 6). In years 7 through 10, upper pastures (1A, 1B, and 3) that are rested in years 1 through 6 of this alternative, would be used late in the fall (October). Although this increase in permitted use would be authorized in a subsequent grazing decision, the impacts of the added fall use are analyzed in this EA.

The cattle that graze on the Trout Springs Allotment are typically authorized to graze on the White Horse Allotment, administered by the Vale District BLM, until June 15. So, although grazing in Trout Springs could begin as early as June 1, it is more likely that grazing would begin closer to June 15. This alternative would offer flexibility to adjust grazing between Oregon and Idaho.

### **A. Upland Vegetation**

Under this alternative, the Hanley Ranch scheduled use (exclusive of Fairylawn) would be increased from 1,405 to 2,115 AUMs (a 710 AUM difference). This would be a reduction of

293 AUMs from the long-term average actual use (2,408 – 2,115 = 293) reported prior to 2002.

Proposed cattle numbers would be the same as the present permit (555) in pastures 1A, 1B and 3. Cattle numbers would be reduced to 490 on August 10, in Pastures 2A and 2B, and remain at that number until the end of the grazing period. The overall grazing season would increase from the current season of 6/15 – 8/30 to 6/1 – 9/30, or by 1 ½ months. The upper pastures would be grazed in a stuttered, six-year rest rotation; lower elevation pastures (2A and 2B) would receive deferred use every year.

### **1. Pastures 2A and 2B (Cottonwood and Grave Creek)**

In Pastures 2A and 2B, grazing use would occur every year, after the seed-ripe of key forage species. The period of use for these two pastures would be 8/10 to 9/4, and 9/5 to 9/30, with the pasture used first being alternated in subsequent years. The proposed grazing level, within these two pastures, would be the same as the average actual use of 838 AUMs.

Construction of the Breaks Fence would decrease the size of Pasture 2, by about 2,500 acres (20%). By reducing the pasture size and maintaining use levels at 838 AUMs, stocking rates in this pasture increase. Utilization monitoring indicated that 50% use in Pasture 2 was exceeded 8 out of 10 years when stocked at 838 AUMs. Active management (herding) of cattle would be necessary to ensure moderate use levels are not exceeded and that livestock are properly distributed. The permittee recently drilled a well on private land, at Fairylawn, which would provide an additional water source for livestock grazing on public lands in Pasture 2A, further assisting with better livestock distribution and mitigating potential heavy use in areas of historic livestock congregation.

This alternative would require that cattle be moved between pastures and/or from the allotment if mid-term utilization monitoring on key species reaches 50% before the end of the scheduled period of use. If adhered to, early moves from pastures 2A and 2B may occur.

If livestock are actively managed, moderate use levels (not to exceed 50% use) coupled with grazing after seed-ripe, should result in improvement in vigor and production of key species and result in greater availability of plant litter for site protection and nutrient cycling.

### **2. Pastures 1A, 1B and 3 (Middle Fork, Thomas Creek, Twin Spring)**

This alternative provides for a three-pasture rest-rotation in the upper pastures (1A, 1B, and 3) on the Trout Springs Allotment. Two pastures would be grazed each year, and one would be rested.

The period of use for the two grazed pastures would be 6/1 to 7/3, and 7/4 to 8/9. Seed ripe for Idaho fescue growing at 5,000 feet, normally is about July 27, and August 12 at 6,000 feet. Elevations in the upper pastures range from 5,700 to 6,700 feet. Pastures 1A, 1B and 3 would receive four years out of six of grazing during much of the critical growth period for key forage plants. Grazing forage plants when they are actively growing can reduce their vigor and production, especially if use levels exceed 40%.

In this rest-rotation system, the grazing use in the two grazed pastures would be 1,277 AUMs. The location of the Breaks Fence would increase the acreage in the upper pasture rotation. However, one pasture (approximately 1/3 of the total upper pasture acreage) would be rested each year. The stocking rate average in this alternative would be similar to the long-term average. Utilization monitoring indicated that 50% use in the upper pastures was exceeded 6 out of 9 years, which would indicate that the upland utilization management guideline is likely to be exceeded much of the time under this alternative.

In years 1 through 6 of this alternative, the upper pastures would be grazed during much of their critical growing period with potentially heavy use levels. Depending on livestock patterns of use, plants that are un-grazed or lightly grazed will complete their growth cycles or re-grow to meet their phenological needs. However, with stocking levels proposed in this alternative, most plant communities are expected to decline, or at best remain static.

In years 7 through 10 of this alternative, rest would be replaced with October use. This would allow more growing season deferment in Pasture 1B. Pasture 1A and 3 would receive little or no growing season deferment and would be expected to decline at proposed stocking rates.

This alternative would require cattle to be moved between pastures if mid-term utilization monitoring on key species reaches 50% before the end of the scheduled use period. If adhered to, it would be likely that cattle would have to be accelerated through parts of this rotation in order to avoid exceeding guidelines. This could mitigate, to an extent, the impact of critical growing season grazing.

### **3. Hanley FFR Allotment and the Fairylawn Pasture (Trout Springs Allotment)**

Effects of this alternative are the same as those described in Alternative 2 (Present Situation).

### **4. Rangeland Improvement Projects**

The construction of rangeland improvement projects, including two spring developments and approximately 7.3 miles of fence, would have a negative impact on the vegetation during construction. The negative impact would result from driving over vegetation and the cutting juniper boughs and trees, as well as the placement of spring collection head-boxes, pipeline, and troughs. Although the negative impact could be severe in some areas, the overall impact would be localized and temporary. Livestock impacts such as trailing along new fences may cause damage to the vegetation, but these impacts would not be significant.

## **B. Special Status Plant Species**

Overall, it is unknown if the effects of this alternative would be in compliance with Idaho Standards for Rangeland Health for special status plants. There is insufficient site-specific information available to evaluate the effects of this alternative on the special status plants known to occur, or those that may occur in these allotments. The complexity of the management under this alternative, coupled with the lack of recent data on current impacts to

special status plant populations in these allotments, make an analysis of the effects of this alternative impossible to determine. The general statements under Alternative 2 may apply to this alternative.

### **C. Wildlife and Special Status Animals**

During the first six years of implementation of Alternative 3, Pasture 1A would receive only one out of six years grazing during the hot season. This would be a reduction in the frequency of use during this critical season, compared to the current system. Pasture 1B would receive three out of six years hot season use, which would be essentially the same as the current system. Pasture 3 would receive two out of six years use during this critical season, which would be a moderate reduction in the frequency of hot season use. However, all three riparian pastures would receive an increase in the duration of hot season treatments, along with an increase in AUMs and a reduction in the frequency of rest. If accurately followed, this alternative would still be likely to result in some improvement in riparian habitat conditions in Pastures 1A and 3, but the rate and extent of improvement would be less than that expected under the current grazing system.

The proposed long-term deferred rotation grazing system would be expected to result in a gradual reversal of any improvements in riparian habitat conditions that were accomplished under the first six years of the permit. This reversal would be most dramatic in Pasture 1A, which would receive two-out-of-three years hot season grazing. This reversal would also be likely to occur in Pasture 1B, which would receive two-out-of-three years early fall grazing, and Pasture 3, which would receive a combination of hot season, late spring/early summer, and early fall grazing, respectively. Rest treatments would also be eliminated in all three of these riparian pastures after year six, which would not allow riparian habitats to fully recover from grazing impacts and make significant progress between grazing treatments.

Although early fall grazing can be an effective treatment for improving or maintaining riparian habitat conditions under the right circumstances, it can also result in unacceptable levels of use with no opportunity for vegetation re-growth, especially during drought years or when temperatures remain unseasonably warm. Both of these climatic conditions have become common within this area in the last 15 to 20 years. Overall, habitat for most riparian dependant wildlife and special status animals is not expected to improve over the long-term.

The reduced frequency of rest, increased frequency of growing season use, and increased stocking rates during the first six years of this alternative, would likely preclude any improvement in the condition of upland wildlife habitat in pastures 1A, 1B and 3. This would be reflected in a reduction in the availability and quality of forage, cover, and structure for most wildlife in comparison to the current system. The long term system would also result in an increase in the frequency of growing season use in pasture 1A and 3, which along with the elimination of rest treatments and higher stocking rates, is expected to result in a long term lack of improvement in upland habitat conditions in these pastures. The long term system would result in a moderate reduction in active growing season use in pasture 1B that would be expected to result in improvement in upland habitat conditions in this pasture. However, the elimination of rest and higher stocking rates are also expected to limit the rate and extent of any improvement in this pasture. The lack of rest and inclusion of late summer and/or fall grazing in most pastures would also result in significantly less over-winter wildlife forage and cover and less residual cover for nesting birds the following spring.

In this alternative, additional gap fencing would be constructed to separate Pastures 2A and 2B, and an additional 0.7 miles of enclosure fence would be constructed along Cottonwood Creek. These fences would result in additional impediments to big game movements and some additional wildlife death losses, as a result of collisions and entanglement. The gap fencing would facilitate full implementation of the proposed grazing system, which would reduce the duration of grazing, while increasing the concentration of grazing in each half of the existing Pasture 2. Concentrating cattle into smaller pastures, for a shorter period of time, would be expected to increase grazing use and associated loss of available cover and forage within portions of each pasture, while reducing use and impacts to wildlife habitat in other areas. Increasing the length of the Cottonwood Creek enclosure fence would result in rapid improvement of an additional 0.5 mile of riparian habitat. The wildlife benefits associated with removing 5.25 miles of the Juniper Mountain fence would not be quickly realized under this alternative, as they would be under Alternative 2. If the fence evaluation, planned to occur sometime prior to 2010 under this alternative, indicates that fence removal is warranted, the benefits could yet occur.

All other proposed projects and associated impacts to wildlife and special status animals would be the same those discussed under Alternative 2.

#### **D. Riparian and Aquatic Resources**

This alternative would implement different frequencies of hot season grazing in Pastures 1A, 1B, and 3. Riparian and aquatic resources in Pasture 1A would improve substantially over the first six years of the permit, as it would be grazed during the hot season in only one out of six years. Riparian and aquatic habitat conditions in Pasture 1B would degrade from that of the current situation (Alternative 2), as the pasture would be grazed during the hot season 50% of the time.

Riparian and aquatic habitat conditions in Pasture 3 would improve slowly over the first six years of the permit, as the frequency (one in three years) and duration (average of 12 days) of hot season grazing would be at the upper limit of that observed to result in improvement of degraded riparian and aquatic resources. If livestock are completely removed from these pastures by July 3, in the years that they are grazed in the spring, and the pastures receive complete rest in the scheduled rest years, then riparian and aquatic habitats would improve slowly over the long term. Livestock use of riparian plants would be high during the one-in-three years of hot season grazing. Density, cover, and vigor of young willows would improve during consecutive years of rest, and during the years of spring grazing. This would result in an overall slow upward trend in condition of riparian and aquatic habitats.

Improvement of riparian and aquatic habitats in Pastures 1A, 1B, and 3, over the first 6 years of the permit would be slower and less in extent, than under Alternatives 1 (No Grazing), 2 (present situation), and 4 (Proposed Action) as duration of hot season use and stocking rates are greater.

The proposed long-term deferred rotation grazing system would be expected to result in a gradual reversal of much of the improvement in riparian habitat condition in Pasture 1A that would be accomplished under the first six years of grazing authorized under this alternative. This pasture would receive two-out-of-three years hot season grazing under the deferred-rotation grazing system. Additionally, riparian and aquatic conditions would continue to be degraded in pasture 1B, as a result of the implementation of the long-term deferred grazing

system, in which Pasture 1B would receive two-out-of-three years early fall grazing. Improvement in riparian and aquatic habitat conditions in Pasture 3 would likely be slowed with the replacement of a year of rest with early fall grazing under the long-term deferred grazing system.

Under this alternative, Pastures 2A and 2B would be grazed during the summer and early fall annually. Accessible portions of Cottonwood Creek would be fenced to eliminate livestock use, and therefore riparian/aquatic habitats in this pasture would either continue to function properly or improve in condition over the mid- to long-term. However, by grazing these pastures in late summer and early fall, livestock may use the pastures differently because upland vegetation would be cured and less palatable. Livestock may access additional areas that were not previously used, along Cottonwood Creek in Pasture 2A and the North Fork of the Owyhee River along the northern border of Pasture 2A. Livestock grazing would be monitored to ensure that the change in period of use in Pasture 2A, does not result in high levels of livestock utilization of woody riparian shrubs (primarily willows) on Cottonwood Creek, or grazing on the North Fork of the Owyhee River.

This alternative would move the allotment boundary (in Pasture 2A) from the North Fork of the Owyhee River to the southern canyon rim, and the river would no longer be in the Trout Springs Allotment. The North Fork of the Owyhee River would still be part of the Cliffs Allotment; grazing there is authorized until July 15. Aquatic and riparian habitats of the North Fork would improve under this alternative, only if cattle using pasture 2A do not access the river. Any cattle grazing the North Fork from the Trout Springs Allotment would be unauthorized. Livestock would need to be closely supervised and herded away from the river.

## **E. Water Quality**

Water quality of streams in Pastures 2A and 2B, of the Trout Springs Allotment, would likely improve over the mid- to long-term under this alternative. Density, cover, and vigor of riparian vegetation would increase by excluding livestock from accessible portions of streams. Stream shading would increase over the long term, and stream channels would deepen and narrow, thereby reducing solar input and stream temperatures. Excluding livestock from accessible portions of streams would also reduce fecal coliform and *E. coli* bacteria inputs to streams.

Water quality of streams in Pastures 1A and 3 in the Trout Springs Allotment would improve initially under this alternative, but water quality of streams in pasture 1B would not improve. With the implementation of the deferred-rotation grazing system, little improvement in density and cover of riparian vegetation would continue beyond year 6 of the grazing permit, and thus little long-term improvement in water quality would be expected under this alternative, except in pasture 3.

The North and Middle Fork Owyhee Subbasin Assessment and Total Maximum Daily Load (TMDL) indicated that cold water biota and salmonid rearing standard attainment would require a 25-58% reduction in thermal energy; and salmonid spawning standard attainment would require an increase in riparian shade. This alternative would comply, in part, with the 1999 TMDL, as slow progress would be made towards meeting Standard 7 (Water Quality) for Rangeland Health in pastures 2A, 2B, and 3. However, this alternative would not comply

with TMDL reductions identified by IDEQ for water quality impaired (303(d) listed) streams in pastures 1A and 1B (after the implementation of the deferred grazing system in year 6).

## **F. Soils**

Overall impacts to the watershed and soil resource (being closely tied to the vegetative community and soil surface stability) could be slightly positive and watershed health could improve (especially if progress in the health of riparian systems is achieved). The areas which currently are not fully meeting the Standards for Rangeland Health could show some progress toward meeting those standards with the exception of pastures 1A, 1B and 3, which are expected to remain static. In portions of the allotment where livestock use is limited, these standards are being met and would continue to be met. Watershed impairing affects due to western juniper and shrub invasion, combined with the utilization of the key forage species during part of the critical growth period, would continue to have long lasting negative impacts on the plant communities in general. Mechanical impacts to the soil surface from livestock hoof action would continue where livestock tend to trail and congregate.

Under this alternative there would be some initial rest along with deferment built into the system (pastures 1A, 1B, and 3 would be in a rest rotation system the first six years). During this first six year cycle, pasture 1A would be grazed for four years in a row during the key forage plant critical growth period and at potentially moderate to heavy utilization levels based on past grazing practices at similar stocking rates. At the end of the six years (depending on monitoring) the system would change and include deferment in all but pasture 1A.

Pasture 1A would be grazed every year during parts of the key forage species critical growth period and this could result in upland vegetative problems resulting in loss of plant vigor, lack of sufficient litter for ground cover and nutrient cycling, and impaired hydrologic function. The implemented utilization limits could help offset these concerns if they are strictly adhered to. Better configuration of the pastures and the addition of range projects to aid in livestock management are also planned.

Stocking rates would not change appreciably and there would be more emphasis on accelerating the grazing rotation once the upland utilization levels are reached or appear that they would be reached. With a history of heavy utilization on key forage species, along with the proposed stocking rate; the utilization limits and livestock moving requirements are critical for any real success to occur on the watershed. Success would be tied to allowing the key forage species to better meet their phenological growth needs thereby improving plant vigor, seed production, and reestablishment. More ground cover, in terms of plant canopy and litter, would also result. These processes could stabilize soils and produce an upward trend in vegetative communities.

The Fairylawn pasture and the Hanley FFR would be grazed at the discretion of the permittee with utilization limited to 50%. Without knowledge of the system the permittee would utilize the impacts to the watershed resource cannot be fully addressed. If the 50% utilization limit is adhered to then the affects would be positive in general.

Impacts associated with water developments and fencing actions would be the same as described under Alternative 2.

## **G. Cultural Resources**

Alternative 3 would have the potential to directly and adversely affect cultural resources, especially in riparian zones and spring areas where cattle tend to concentrate and trample the ground. This would result in a loss of integrity for cultural resource sites. This would likely occur in Pastures 3, 1A and 1B, however, this alternative would likely preserve the integrity of cultural resources along riparian zones in Pastures 2A and 2B. Additional impacts from project construction would be addressed on a project-by-project basis for compliance with Section 106 of the National Historic Preservation Act.

Direct impacts from grazing include surface disturbance and soil compaction with subsequent damage to, and repositioning of artifacts through trampling. The degree and rate of site destruction in relation to the duration of trampling or number of livestock involved is unknown. In addition to artifact breakage, this results in alteration of contextual information resulting in loss of integrity and scientific information.

Indirect impacts of grazing include the removal of vegetative cover, which facilitates erosion and subsequent damage to or complete eradication of cultural sites. In the case of a highly stratified site, this could potentially mean the loss of thousands of years' accumulation of cultural material.

## **H. Visual Resource Management**

Under this alternative (3), negative impacts to the scenic quality of plant communities would occur in areas where livestock congregate throughout the allotment. Scenic quality may incrementally improve, as riparian conditions improve in pastures 1A, 2A and 3 for years 1 through 6. However, after year 6 when the rest rotation grazing is converted to a deferred system, livestock impact areas would become more noticeable.

Construction of new range facilities (approximately seven miles of pasture and enclosure fence and two spring developments) and maintenance of existing range developments would have a short-term impact on vegetation, resulting in a short-term negative effect on visual resources. Motor vehicle use associated with project construction and maintenance would primarily be limited to established and authorized roads, which would minimize the disturbance associated with the projects. There would be no significant change to visual resources on the Hanley FFR Allotment.

## **I. Recreation**

Negative impacts to recreation that are currently occurring due to livestock grazing, would continue under Alternative 3. There would be improvement in riparian conditions in parts of the allotment (pastures 1A, 2A and 3) in the first six years of the grazing system.

Improvements in scenic quality, due to improved riparian condition, would positively affect scenic quality, which would also positively affect recreationists' experiences. This improvement would be somewhat cyclic, as vegetative conditions observable to recreationists would vary dramatically depending on the time of visitation relative to when the area had been grazed.

Although the North Fork of the Owyhee River, in pasture 2A, would be excluded from the allotment, livestock may still have access to the river corridor. Short- and long-term improvements to scenic quality, recreational opportunities, riparian conditions, and wildlife habitat along the suitable wild and scenic river corridor would occur if it is not accessed by cattle grazing in 2A.

Approximately 7 miles of new fences proposed for construction would create impediments to cross-country travel for recreationists on foot and horseback, as well as for winter recreationists. Ground disturbance associated with range projects may lead to the proliferation of unwanted roads into un-roaded areas and areas being managed for non-motorized uses. An additional negative impact would be that approximately 6.25 miles of unnecessary fencing that would have been removed under the current situation, may not be removed under this alternative. Recreational use levels would likely continue to gradually increase, which is the trend throughout the area. This alternative would be less favorable for recreation than the current situation (Alternative 2). There would be no significant change to recreation on the Hanley FFR Allotment.

## **J. Wilderness**

Under this alternative, the wilderness value of naturalness would continue to be negatively affected in areas of the Squaw Creek WSA where livestock congregate. The outstanding scenic quality of the North Fork Owyhee WSA, a special feature, should improve. This alternative moves the allotment boundary from the North Fork to the southern canyon rim. The river in Trout Springs Allotment would be excluded from livestock grazing. However, by grazing Pasture 2A in the summer, livestock use of the pasture may change because upland vegetation would be cured and less palatable. As a result, livestock may access the North Fork where they haven't in the past. If this is the case, wilderness values would be negatively affected.

There would be no improvement in naturalness within the Squaw Creek WSA because 2.5 miles of existing fence (proposed to be removed in Alternative 2) would remain. For preserving wilderness values, this alternative would be less beneficial than the 'Present Situation' (Alternative 2). This alternative would conform to the BLM Interim Management Policy and Guidelines for lands under wilderness review. No wilderness study areas exist on the Hanley FFR Allotment.

## **K. Social/Economic**

Under this alternative (3), the permittee and the BLM would have immediate, direct costs for construction and removal of rangeland management projects. Direct costs to the permittee would be \$15,950. Direct costs to the BLM would be \$26,700.

This Alternative could provide some benefits to the permittee because livestock would be permitted to graze in the allotment for a longer period of time than the present situation. Active use would be higher than it is in both Alternatives 2 and 4. However, because the BLM does not have extensive knowledge of the permittee's other ranching interests, alternative grazing options or access to the permittee's financial and business records, it is impossible to quantify the effect. The season of use in this alternative is much shorter than historically. There could be potential for some of the displaced grazing use to be absorbed into the other operations where the permittee has interest or the permittee could be forced to

find alternative rangeland to graze the livestock, graze them on hay aftermath, or feed them hay.

This alternative would require the permittee to conduct timely pasture rotations and complete livestock removal at the end of the authorized grazing period(s). This would require that the permittee spend more time gathering and moving cattle. This alternative requires more pasture moves (three between-pasture moves) than alternative 2 (one between-pasture move).

In general, other social and economic impacts from this alternative would be similar to those described in the July 1999 EIS for the Owyhee RMP (pages IV-295 to IV-297).

#### **IV. Alternative 4 – Proposed Action – Rest Rotation (Map 3)**

This alternative provides for an increase in permitted use and season of use in years 7 through 10 of the term permit, if significant riparian improvement occurs as a result of improved grazing management in years 1 through 6. Upper pastures (1A, 1B, 3) rested under this alternative would be used late in the fall (in October for years 7 – 10). This increase in permitted use would be authorized in a subsequent grazing decision and is not analyzed in this Environmental Assessment. Grazing rotations analyzed in this alternative assume years 1 to 6 repeat through the term of the grazing permit.

Cattle grazing in Trout Springs Allotment are typically authorized in the White Horse Allotment of the Vale District until June 15. So, although grazing in Trout Springs could begin as early as June 1, it is more likely that grazing would begin closer to June 15.

##### **A. Upland Vegetation**

Under this alternative, the Hanley Ranch permitted use (exclusive of Fairylawn) would be increased from 1,405 to 1,999 AUMs, or 594 AUMs. This would be a reduction of 409 AUMs from the long-term average actual use (2,408 – 1,999 = 409). Proposed cattle numbers (500) in the upper pastures (1A, 1B and 3) would be less than present numbers or those in Alternative 3 (555). Cattle numbers in Pastures 2A and 2B could vary provided active AUMs of 838 are not exceeded. The overall grazing season would increase from the current season of 6/15 – 8/30 to 6/1 – 10/15, or by 2 months. The upper pastures (Thomas Creek, Middle Fork, and Twin Spring) would be grazed in a stuttered, six-year rest rotation; lower elevation pastures would receive deferred use every year.

##### **1. Pastures 2A and 2B (Cottonwood and Grave Creek)**

Impacts of this alternative are the same as those described in Alternative 3, Preferred Alternative (Settlement Agreement).

##### **2. Pastures 1A, 1B and 3 (Middle Fork, Thomas Creek, Twin Spring)**

With this alternative, a three pasture, stuttered rest-rotation would be implemented on the upper pastures in the Trout Springs Allotment. Two pastures would be grazed each year and one would be rested.

The period of use for the two grazed pastures would be 6/1 to 7/3, and 7/4 to 8/9. Seed ripe for Idaho fescue growing at 5,000 feet, normally is about July 27, and August 12 at

6,000 feet. Elevations in the upper pastures range from 5,700 to 6,700 feet. Pastures 1A, 1B and 3 would receive four years, out of six, of grazing during much of the critical growth period for key forage plants. Grazing forage plants when they are actively growing can reduce their vigor and production, especially if use levels exceed 40%.

The proposed scheduled use in the two grazed pastures would be 1,161 AUMs. The stocking rate would be less than the long-term average actual use. Compared to Alternative 3, this is about 10% less use in the upper pastures, where critical growing season grazing occurs in combination with rest. This reduction, along with active livestock management, would be more likely to meet management guidelines of no more than 50% use.

The upper pastures are grazed during much of their critical growing period, in combination with rest. Reduced livestock numbers would result in more areas that are un-grazed or lightly grazed than in Alternative 3. With lighter use resulting from livestock reduction, many plants will complete their growth cycles or re-grow to meet their phenological needs. Plant communities in these pastures are expected to remain static, or possibly improve.

This alternative would require that cattle be moved between pastures if mid-term utilization monitoring on key species reaches 50% before the scheduled end date of the period of use. The reduction in the stocking rate in the upper pastures proposed in this alternative should prevent acceleration of the grazing rotation. However the potential remains for heavy use on some years. If adhered to, this provision would prevent over use of these pastures. This could mitigate, to an extent, the impact of critical growing season grazing.

### **3. Hanley FFR Allotment and the Fairylawn Pasture (Trout Springs Allotment)**

Impacts of this alternative are the same as those described in Alternative 2, Present Situation.

### **4. Rangeland Projects**

Impacts of this alternative are the same as those described in Alternative 3, Preferred Alternative (Settlement Agreement).

## **B. Special Status Plant Species**

Overall, it is unknown if the effects of this alternative would be in compliance with Idaho Standards for Rangeland Health for special status plants. There is insufficient site-specific information available to evaluate the effects of this alternative on the special status plants known to occur or those that may occur in these allotments. The complexity of the management under this alternative, coupled with the lack of recent data on current impacts to special status plant populations in these allotments, make an analysis of the effects of this alternative impossible to determine. The general statements under Alternative 2 may apply to this alternative.

### **C. Wildlife and Special Status Animals**

This alternative would result in impacts similar to those described for Alternative 3 over the first six years of implementation, except that there would be one more year of hot season grazing in Pasture 1A and one less year of hot season grazing in Pasture 1B. This would be expected to result in less riparian improvement in Pasture 1A and greater riparian habitat improvement in Pasture 1B, compared to Alternative 3. Cattle numbers in these pastures would be less under this Alternative than under either Alternatives 2 or 3, but stocking rates (acres/AUM) would actually be considerably higher than the current system (Alternative 2) and slightly lower than Alternative 3. Over the long term, the reduced frequency of hot season grazing and continuation of periodic back-to-back rest treatments would contribute to the continued improvement in habitat conditions. Compared to Alternative 3, this alternative would result in additional upland and riparian cover and forage during rest years and an increase in residual spring nesting cover in years following rest.

For Pastures 2A and 2B, the grazing system, stocking rates, and associated impacts to wildlife and special status species habitats and populations would be similar to those proposed under Alternative 3; however, the grazing period in these two pastures would begin three weeks later than under the current system (Alternative 2) and be extended until 10/15, if fewer cattle are grazed (for a total difference of three weeks more use by less cattle). This Alternative differs from Alternative 3 in that the grazing period could be extended by 2 weeks (until 10/15) if fewer cattle are grazed. Although overall stocking rates would be the same, the extended fall use could possibly result in increased utilization of woody plants that would reduce available browse for deer and other big game. This could also adversely affect woody plant vigor and production over the long-term if not closely monitored.

Proposed projects and associated impacts to wildlife and special status animals would be the same those discussed under Alternative 3.

### **D. Riparian and Aquatic Resources**

This alternative would implement hot season grazing of riparian areas in pastures 1A, 1B, and 3 at the upper end of the frequency (one in three years) and duration (average of 12 days) observed to result in significant improvement of degraded riparian and aquatic resources. Additionally, stocking rates would be slightly lower than those in Alternative 3. Livestock use of riparian plants would be high during the one in three years that a pasture is grazed during the hot season. Density, cover, and vigor of young willows would improve during consecutive years of rest, and during the years of spring grazing, resulting in an overall slow upward trend in condition of riparian and aquatic habitats.

Improvement of riparian and aquatic habitats in Pastures 1A, 1B, and 3 would be slower than that under Alternatives 1 and 2, as duration of hot season use for these pastures would be longer under this alternative. Riparian and aquatic habitats would improve at a faster rate and to a greater extent than under Alternative 3 because of lower stocking rates, and by limiting hot season use to one out of three years for the length of the permit for all riparian pastures.

Under this alternative, Pastures 2A and 2B would be grazed during the summer and early fall annually. Accessible portions of Cottonwood Creek would be fenced to eliminate livestock use, and therefore riparian/aquatic habitats in this pasture would either continue to function properly or improve in condition over the mid- to long-term. However, by grazing these

pastures in late summer and early fall, livestock may use the pastures differently because upland vegetation would be cured and less palatable. Livestock may access additional areas that were not previously used, along Cottonwood Creek in Pasture 2A and the North Fork of the Owyhee River along the northern border of Pasture 2A. Livestock grazing would be monitored to ensure that the change in period of use in Pasture 2A, does not result in high levels of livestock utilization of woody riparian shrubs (primarily willows) on Cottonwood Creek, or grazing on the North Fork of the Owyhee River.

This alternative would move the allotment boundary (in Pasture 2A) from the North Fork of the Owyhee River to the southern canyon rim, and the river would no longer be in the Trout Springs Allotment. The North Fork of the Owyhee River would still be part of the Cliffs Allotment; grazing there is authorized until July 15. Aquatic and riparian habitats of the North Fork would improve under this alternative, only if cattle using pasture 2A do not access the river. Any cattle grazing the North Fork from the Trout Springs Allotment would be unauthorized. Livestock would need to be closely supervised and herded away from the river.

## **E. Water Quality**

Water quality of streams in Pastures 2A and 2B, of the Trout Springs Allotment, would likely improve over the mid- to long-term under this alternative. Density, cover, and vigor of riparian vegetation would increase by excluding livestock from accessible portions of streams. Stream shading would increase over the long term, and stream channels would deepen and narrow, thereby reducing solar input and stream temperatures. Excluding livestock from accessible portions of streams would also reduce fecal coliform and *E. coli* bacteria inputs to streams.

Water quality of streams in Pastures 3, 1A, and 1B would improve over the long term as density and cover of riparian vegetation improves. Increased stream bank stability would result in lower levels of fine sediment in streams, and reduce levels of *E. coli* and fecal coliform bacteria. Stream channels would begin to narrow and deepen and stream shading would improve over the long term. The North and Middle Fork Owyhee Sub-basin Assessment and Total Maximum Daily Load (TMDL) indicated that cold water biota and salmonid rearing standard attainment would require a 25-58% reduction in thermal energy; and salmonid spawning standard attainment would require an increase in shade. This alternative would comply with the 1999 TMDL, and slow but significant progress would be made toward meeting Standard 7 (Water Quality) for Rangeland Health, if the grazing system is adhered to and management guidelines for livestock use of riparian vegetation are regularly met.

## **F. Soils**

Overall impacts to the watershed and soil resource would be positive and watershed health would improve (especially with anticipated progress in the health of riparian systems). The areas which currently are not fully meeting the Standards for Rangeland Health would show progress towards meeting those standards. These improvements are directly related to the lower stocking rates and the proposed grazing system, which is watershed oriented. In portions of the allotment where livestock use is limited, these standards are being met and would continue to be met. Watershed impairing affects due to western juniper and shrub invasion, combined with the utilization of the key forage species during part of the critical

growth period, would continue to have long lasting negative impacts on the plant communities in general. Mechanical impacts to the soil surface from livestock hoof action would continue where livestock tend to trail and congregate.

Under this proposed management there would be rest and deferment built into the system (especially in Pastures 1A, 1B, and 3 where rest is a key component) along with better configuration of the pastures and range projects to aid in livestock management. Stocking rates would be reduced and there would be more emphasis on accelerating the grazing rotation once the upland utilization levels are reached or appear that they will be reached. By reducing livestock numbers and strictly enforcing the upland utilization limits (reduced livestock numbers would greatly aid in this occurring) the key forage species, even when grazed during portions of their critical growth period would better meet their phenological growth needs thereby improving plant vigor, seed production, and reestablishment. Better ground cover, in terms of plant canopy and litter, would also occur over time. These processes would stabilize soils and produce an upward trend in vegetative communities.

The Fairylawn pasture and the Hanley FFR would be grazed at the discretion of the permittee with utilization limited to 50 %. Without knowledge of the system the permittee would use the impacts to the watershed resource cannot be fully addressed. If the 50% utilization limit is adhered to then the affects would be positive in general.

Impacts associated with water developments and fencing actions would be the same as described under Alternative 2.

## **G. Cultural Resources**

This alternative would have the potential to directly and adversely affect cultural resources, especially in riparian zones and spring areas where cattle tend to concentrate and trample the ground. This would result in a loss of integrity for cultural resource sites. This would likely occur in Pastures 3, 1A and 1B, however, this alternative would likely preserve the integrity of cultural resources along riparian zones in Pastures 2A and 2B. Additional impacts from project construction would be addressed on a project-by-project basis for compliance with Section 106 of the National Historic Preservation Act. Other impacts are as described under Alternative 3.

## **H. Visual Resource Management**

Under this alternative (4), negative impacts to the scenic quality of plant communities would occur in areas where livestock congregate throughout the allotment. Lighter stocking rates in the upper pastures would mitigate this to an extent. Scenic quality would incrementally improve, as riparian conditions improve throughout the allotment. This alternative would be less favorable for visual resources in the upper pastures (1A, 1B and 3) than the present situation (Alternative 2), which proposed lighter stocking rates and more frequent rest. Impacts resulting from the construction and maintenance of range projects would be the same as Alternative 3. There would be no significant change to visual resources on the Hanley FFR Allotment.

## **I. Recreation**

Under this alternative (4), negative impacts to recreation that are currently occurring due to livestock grazing would continue. There would be improvement in riparian conditions throughout the allotment. Improvements in scenic quality due to improved riparian conditions would have a positive effect on scenic quality, which would benefit recreationists' experiences. This improvement would be somewhat cyclic as vegetative conditions, observable to recreationists, would vary dramatically depending on the time of visitation relative to when the area had been grazed. Impacts to recreation values of the North Fork of the Owyhee River, in pasture 2A, would be similar to Alternative 3. Impacts resulting from the construction and maintenance of range projects would be the same as Alternative 3. There would be no significant change to recreation on the Hanley FFR Allotment.

Recreational use levels would likely continue to gradually increase, which is the trend throughout the area. This alternative would be less favorable for recreation than the current decision (Alternative 2).

## **J. Wilderness**

Impacts to wilderness values of the North Fork Owyhee WSA would be similar to Alternative 3. The wilderness value of naturalness would continue to be negatively affected in areas of the Squaw Creek WSA where livestock congregate. Improvement of riparian and aquatic habitats in the Squaw Creek WSA would be slower than that of Alternatives 1 and 2. Riparian and aquatic habitats would improve at a faster rate and to a greater extent than under Alternative 3, because of lower stocking rates, and limited hot season use (one out of three years) for the length of the permit, for all riparian pastures. This would reduce livestock-related impacts to naturalness in the Squaw Creek WSA.

The improvement in naturalness within the Squaw Creek WSA, that would have resulted from removal of 2.5 miles of existing fence (proposed to be removed in Alternative 2), may not result in this alternative. The need for this fencing would be assessed in 2009. For preserving wilderness values, this alternative would be less beneficial than the 'Present Situation' (Alternative 2). This alternative would conform to the BLM Interim Management Policy and Guidelines for lands under wilderness review. There are no wilderness study areas on Hanley FFR allotment.

## **K. Social/Economic**

Under this alternative (4), the permittee and the BLM would have immediate, direct costs for construction and removal of rangeland management projects. Direct costs to the permittee would be \$9,075. Direct costs to the BLM would be \$29,825.

The social/economic impacts of this alternative are similar to that of Alternative 3, except that fewer cattle are permitted in June, July and the early part of August. There could be potential for some of the displaced grazing use to be absorbed into the other operations where the permittee has interest, or the permittee could be forced to find alternative rangeland to graze the livestock, graze them on hay aftermath, feed them, or sell them.

This alternative would require the permittee to conduct timely pasture rotations and complete livestock removal at the end of the authorized grazing period(s). This would require that the

permittee spend more time gathering and moving cattle. This alternative requires more pasture moves and alternative 2.

In general, other social and economic impacts from this alternative would be similar to those described in the July 1999 EIS for the Owyhee RMP (pages IV-295 to IV-297).

## **V. Cumulative Impacts**

### **A. Scope of The Analysis**

The resources for which the proposed action and alternatives have direct or indirect impacts include upland vegetation, fish and wildlife, wetland/riparian/aquatic, recreation, and social/economic. Livestock grazing and recreational uses are the primary past, present, and future actions and land uses that could cumulatively impact these resource values in the cumulative analysis area. All adjacent allotments have recently been issued grazing decisions. Public land makes up the majority of these allotments; however, they include varying degrees of state and private lands. Livestock grazing is the primary use of these lands; however, there has been substantial juniper treatment (cutting, burning) on some state and private lands.

Where livestock grazing practices are a significant factor in allotments that are not meeting Idaho Standards for Rangeland Health, grazing practices are adjusted so that progress will be made toward meeting the standards. As in the proposed action, adjustments are in conformance with the land use plan and could include changes to season, level, and duration of livestock use. Changes within the immediate watershed would have the greatest impact on improving upland and stream resources. Changes in adjacent watersheds would have the greatest beneficial effect on wildlife and recreation resources. Recreational uses (dispersed camping, hunting, rafting) are expected to increase through time.

#### **1. Upland Vegetation**

Under alternatives 1, 2, 3 and 4, improvements to upland vegetation would be expected. As changes are implemented on surrounding grazing allotments, there would be a cumulative beneficial effect.

Under all the alternatives, expansion of juniper into sagebrush communities could result in changes in plant community composition and a downward trend in ecological condition in those areas over the long term; however, under Alternatives 1, 2, and in the rested pastures under alternatives 3 and 4, increased plant litter could result in wildfire playing more of a role in reducing juniper expansion and maintaining sagebrush communities.

Under Alternative 1 (No Grazing Alternative), the greatest improvement to upland vegetation and standards and guidelines would be expected.

#### **2. Fish and Wildlife**

Under all the alternatives, improvements to fish and wildlife habitat would be expected. As changes are implemented on surrounding allotments, there would be a cumulative beneficial effect.

Alternative 1 (No Grazing Alternative) would result in the greatest improvement in terms of rapidly increasing the quantity and quality of available forage and cover and eliminating the physical disturbance to habitats and populations associated with livestock grazing.

### **3. Wetland/Riparian/Aquatic**

Under all the alternatives, improvements to wetland, riparian, and aquatic resources would be expected, although extent and rate of improvement would be noticeably less and slower under Alternative 3. Many tributary streams to the North and Middle Forks of the Owyhee River, Deep Creek, and Red Canyon Creek are located in the Trout Springs Allotment. Improvement in riparian, aquatic, and water quality conditions in this allotment would have cumulative beneficial effects to downstream reaches in the North and Middle Forks of the Owyhee River and the Owyhee River watershed. With the exception of Alternative 3, improvements in streambank stability and vegetation cover would result in all streams in proper functioning condition and meeting water quality standards. Alternative 1 would have the most rapid improvement.

### **4. Recreation**

Improving habitat conditions under Alternative 1, and to a lesser degree, the other alternatives, would have a positive cumulative effect on most recreational opportunities. Under Alternatives 2, 3, and 4, increases in rangeland management projects would have positive and negative cumulative impacts. Positive impacts would include improvements in habitat conditions related to changes in grazing systems, removal of livestock from the North Fork of the Owyhee River, and protection or improvement of spring and riparian resources. Negative impacts would include the overall increase of projects.

### **5. Social/Economic**

Alternative 1 would potentially have the greatest negative cumulative impact to the grazing permittee and the local economy. Income from public lands grazing, currently an important component of the local economy, would be eliminated. This could be offset over the long term if recreation became a more important component of the local economy. If permitted use remains as identified under Alternative 2, then there would be some negative cumulative impacts to the grazing permittee and the local economy. Local economies would remain relatively unchanged under Alternatives 3 and 4.

## Chapter 5

### Public Participation

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Affected permittees, Idaho State land management agencies, and interested publics were consulted during the allotment assessment process. These interested publics were informed of the assessment process in a letter, dated May 12, 2000. This letter asked for any information, related to the assessment area (such as comments, data, photographs, etc.), to be submitted to the BLM office by July 15, 2000, so it could be considered during the analysis and assessment process.

The draft assessments, for the Trout Springs and Hanley FFR allotments, were completed and mailed on March 26, 2001. A letter was sent with the assessments requesting comments on the drafts by April 15, 2001. Final assessment and determination documents were mailed on July 6, 2001. A letter sent with these documents requested comments for BLM's consideration on proposed actions, necessary to rectify the issues raised in the determination documents. Comments were due August 3, 2001.

On March 12, 2002, the Owyhee Field Office issued a Final Decision for the Trout Springs (30539) and Hanley FFR (#0453) grazing allotments. Hanley Ranch Partnership, Ted and Dorothy Payne, and Owyhee County appealed this Decision; Western Watershed Project and the Committee for Idaho's High Desert intervened. The Office of Hearings and Appeals (OHA) tentatively scheduled a hearing for the end of 2002. Prior to scheduling the hearing, the OHA administrative law judge asked all parties to attempt settlement. Despite intensive discussion by all parties and their legal representatives, settlement was not reached.

By an agreement dated March 21, 2003, the appellants agreed to withdraw their appeal, provided the BLM analyzed and re-issued a new grazing decision for the management of the Trout Springs Allotment. In doing so, the BLM agreed to consider the provisions of the last draft of the Settlement Agreement as their Preferred Alternative (Alternative 3).

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# Appendix A

## Maps

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Map 1 – Alternative 1 (No Grazing)

Map 2 – Alternative 2 (Present Situation)

Map 3 – Alternative 3 (Settlement Agreement)  
and Alternative 4 (Proposed Decision)

Map 4 – Monitoring Locations

Map 5 – HUC Level 5 Watersheds

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# Appendix B

## Water Quality Restoration Plan

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### A. Introduction

This water quality restoration plan is for a portion of the North Fork and Middle Fork of the Owyhee River Sub-Basin (HUC #17050107), including Pleasant Valley Creek and Squaw Creek watersheds, and a portion of the North and Middle Fork of the Owyhee Rivers.

Streams on the Trout Springs Allotment include all or portions of the following streams: North Fork of the Owyhee River, Pleasant Valley Creek and its tributaries, Squaw Creek and its tributaries, Hells Creek and its tributaries, Salt Creek, Grave Creek, Twin Springs Ridge Creek, Cottonwood Creek, Middle Fork of the Owyhee River, Granite Spring Creek Tributary, West Fork of Red Canyon Creek, Bear Creek, Little Thomas Creek, Thomas Creek and its tributaries, Smith Creek and its tributaries, and Little Smith Creek and its tributaries.

The North and Middle Forks of the Owyhee River generally drain to the west, from Idaho into Oregon. The Middle Fork of the Owyhee River drains the western slope of Juniper Mountain, while the North Fork of the Owyhee River drains the north slope of Juniper Mountain and south slope of South Mountain. Red Canyon drains the south slope of Juniper Mountain. The streams listed above, in the Trout Springs Allotment, are used primarily for livestock grazing and habitat for fish and wildlife.

In 1998, five water bodies in the Trout Springs Allotment (four in the Middle Owyhee HUC #17050107 and one in the Upper Owyhee HUC #17050104) were classified by the Environmental Protection Agency (EPA) under 303(d) of the Clean Water Act, as water quality limited for the following reasons:

#### **HUC #17050107**

- North Fork of the Owyhee River - high temperature and excessive bacteria.
- Middle Fork Owyhee River - excessive sediment, high temperature, and flow alteration.
- Squaw Creek - excessive sediment, high temperature, and flow alteration.
- Pleasant Valley Creek - excessive sediment, high temperature, and flow alteration.

#### **HUC #17050104**

- Red Canyon Creek - excessive sediment, high temperature, and flow alteration.

The pollutants listed above, with the exception of flow alteration, are the result of streambank damage and a loss of streambank shade, due to livestock grazing; road crossings also contribute

to the sediment load, but are considered a minor source (see “North and Middle Fork Owyhee Subbasin Assessment and Total Maximum Daily Load”).

Monitoring in 1999, by the Idaho Department of Environmental Quality (IDEQ), indicated that existing uses for the North Fork of the Owyhee River and its tributaries, as well as the Middle Fork of the Owyhee River, include the following:

- cold water biota;
- salmonid spawning and rearing for redband trout;
- secondary contact recreation;
- agricultural water supply.

Existing uses for the North and Middle Forks of the Owyhee River also include primary contact recreation, domestic water supply, and special resource waters.

All water bodies are required to meet Idaho water quality standards for designated beneficial uses within the State of Idaho. According to Section 401, of the Clean Water Act, in the case of interstate waters where State criteria differ, the more restrictive standard must be met at the border. In the case of the North and Middle Forks of the Owyhee River, which flow through Idaho and Oregon, the State of Oregon included both rivers on their (1998) 303(d) list, due to high stream temperatures. Therefore, these rivers must meet standards for the State of Oregon at the Idaho-Oregon border.

Stream temperature data, collected from water bodies within the North Fork Owyhee Hydrologic Unit (HUC), indicate that stream temperatures exceed the current Idaho and Oregon water quality standards for cold water biota, and salmonid rearing and spawning during the designated spawning period. For this reason, the “North and Middle Fork Subbasin Assessment and Total Maximum Daily Load (TMDL)” document was prepared. Data collected and reviewed during this process did not support the excessive sediment classification; however there can be no increases to the current sediment load that would impair existing uses. In addition, this data collection and review process did not indicate an excess of bacteria in the system; therefore no bacteria load reduction was proposed. EPA does not require flow alteration to be addressed as a TMDL pollutant; therefore flow alteration is not addressed.

All pollutants listed on the (1998) 303(d) list are non-point sources, originating on public, state, or private lands within fifth order hydrologic units (HUC 17050107.06 &.08); which in part, include the North and Middle Forks of the Owyhee River and their tributaries, and HUC 17050104.01, which includes Red Canyon Creek in southwest Idaho (see Map 5).

## **B. Recovery Goals and Objectives**

Recovery goals include compliance with the Clean Water Act and Idaho Water Quality Standards for temperature, sediment, and bacteria on streams crossing public lands in the Trout Springs and Hanley FFR allotments.

Objectives include the following: improve herbaceous and woody species diversity, composition, density, vigor, cover, structure and root-mass; reduce streambank damage; and reduce bacteria contamination of the streams.

It is expected that the following riparian community characteristics would enable the streams to meet the standard for temperature:

- Woody species density and canopy cover, providing 80% or more stream shading.
- A riparian community dominated by late seral hydric herbaceous species, such as Nebraska sedge and beaked sedge.

### **C. Restoration Plan**

The following Best Management Practices, to address pollutant sources, are in compliance with the Natural Resources Conservation Service, Conservation Practice Standards for Prescribed Grazing, Code 528A:

#### **Trout Springs Allotment:**

- Pastures 1A, 1B, and 3 would be grazed by 500 cattle under a rest-rotation grazing system, where each pasture would be rested or grazed during June, two out of three years, and grazed during the hot season (07/04 – 08/09), one out of three years. Pastures 2A and 2B would be grazed every year during August and September, but accessible stream segments would be fenced to eliminate livestock use.
- Utilization of bluebunch wheatgrass, needlegrass, bottlebrush squirreltail, Idaho fescue, or mountain brome would not exceed 50% of the current year's growth at key areas in pastures 1A, 1B, 2A, 2B, and 3, as measured by BLM-quantitative procedures (Utilization Studies and Residual Measurements, Interagency Technical Reference, 1996).
- A minimum median stubble height of 4 inches should remain on key hydric herbaceous species, such as Nebraska sedge and beaked sedge, at the end of the growing season in the riparian areas along the Middle Fork of the Owyhee River, West Fork Red Canyon, Squaw Creek, Cottonwood Creek, Pleasant Valley Creek, Thomas Creek, Little Thomas Creek, Smith Creek, and Little Smith Creek.
- Woody browse (willow, alder, and dogwood) utilization by livestock should not exceed 25% on new leader growth, within reach of livestock, at the end of the growing period.
- Streambank alteration, attributable to livestock grazing, would not exceed 10 % at the end of the grazing season on any stream segment.
- Salt and supplement would not be placed within ¼ of a mile from riparian areas, springs, streams, meadows, aspen stands, playas, or water developments.
- Cottonwood spring would be developed to provide livestock water in the southern portion of Pasture 2B. The wetland area would be excluded from grazing by an enclosure fence.

- Middle Fork Spring would be developed to provide livestock water in the southern portion of Pasture 1A. The wetland area would be excluded from grazing by an enclosure fence.

#### **Hanley FFR Allotment:**

- Hanley FFR Allotment would be grazed at the discretion of the permittee; however use would occur between June 1 and December 31, and not exceed 50% utilization of key forage plants.

### **D. Margin of Safety**

This section of the Water Quality Restoration Plan describes ‘how’ and ‘to what extent’, the Best Management Practices would be likely to reduce the pollutants, and result in compliance with the Water Quality Standards.

Recovery of riparian and aquatic habitats, in pastures 1A, 1B, and 3, on the Trout Springs Allotment, would be achieved with the proposed rest rotation grazing system. This system is designed to allow each pasture to be grazed twice (in a six year rotation) during the hot season (July/August). The hot season grazing years are separated by two early season (June) grazing years, and followed by two years of complete rest.

Most hot season grazing (July/August) would be eliminated, the overall stocking rate would be slightly reduced, and pasture rest would improve vigor, cover, and density of riparian plants. Fencing would eliminate livestock use of accessible segments of Cottonwood Creek in pasture 2A, resulting in improvements in riparian plant communities.

June use in pastures 1A, 1B, and 3 would encourage livestock to utilize upland vegetation more than riparian vegetation; thus reducing use of riparian plants, as well as reduce the amount of soil compaction and bank trampling. Also, there would be an expected reduction in livestock use of woody riparian plant species, by shortening the duration of use in each pasture to 33 days.

Although July and August grazing would result in little to no re-growth of riparian plants, two out of six years in pastures 1A, 1B, or 3; resting these pastures for two consecutive years, combined with June grazing, would result in a slow upward trend in herbaceous and woody riparian vegetation composition, vigor, cover, structure, density and root mass. Improved vegetative conditions would result in improved buffering of erosive forces of high flows and increased filtering of sediment, allowing for bank stabilization and aggradations, and increases in stream shade. Streambank stability would improve, along with water infiltration and bank storage, and the condition of aquatic habitats.

Narrowing and deepening of the streams, associated with bank stabilization and aggradation, along with improved stream cover (shade), would reduce water temperature. These conditions would comply with, or make progress toward compliance with the 1999 “North and Middle Fork Owyhee Subbasin Assessment and Total Maximum Daily Load” document, and Standard 7 (Water Quality) for Rangeland Health.

## **E. Implementation Plan**

The rest rotation grazing system is scheduled to be implemented during the 2004 grazing season. Fence construction was initiated in 2003. Exclosure fences, protecting spring wetlands and spring developments, are scheduled for 2004.

Greenline transects and permanent photo trend sites would be established on the Middle Fork of the Owyhee River, West Fork Red Canyon, Squaw Creek, Cottonwood Creek, Pleasant Valley Creek, Thomas and Little Thomas Creeks, and Smith and Little Smith Creeks in 2004. Permanent photo trend sites have been established in the Trout Springs exclosure and on the North Fork of the Owyhee River.

## **F. Estimated Recovery Time**

It is expected that a response to the management changes would be observed in as little as 5 years on some streams. Full recovery would be expected in 10 to 15 years on most streams that are functioning at risk. Streams that are non-functioning would be expected to take 20 years or more to reach full recovery.

Time frames for stream recovery are based on recovery observations, by riparian specialists with the Lower Snake River District BLM, of similar streams in this area.

## **G. Cumulative impacts of past, present, and future management**

It is expected that all streams in the Trout Springs Allotment would recover from past and present impacts under the proposed management system. The Hanley FFR Allotment, which has no riparian habitat on public land, represents 4% of the Cherry Creek hydrologic unit, or about 0.3% of the public land in the Middle Owyhee HUC# 17050107. The Trout Springs Allotment represents 16.5% of the North Fork Owyhee hydrologic unit, and 7% of the Middle Fork Owyhee hydrologic unit, or 9.3% of the public land in the Middle Owyhee HUC# 17050107. It also includes 7% of the Nickel Creek hydrologic unit, 3% of the Red Canyon hydrologic unit, and 0.2% of the Deep Creek hydrologic unit of the Upper Owyhee HUC# 17050104.

The headwaters of many streams are located within the Trout Springs Allotment. Establishment of deep-rooted species such as sedge, rush, and willow would help these stream headwaters deepen and narrow; thus increase stream shading, which would provide colder water temperatures, and less sediment and bacteria to downstream reaches. This, in conjunction with improvement of upstream vegetation and seed sources, would help downstream reaches recover more rapidly.

The proposed management on the Trout Springs Allotment would have the greatest effect on streams located entirely within the allotment; however it would have positive impacts on all streams whose headwaters are located on Juniper Mountain, in the Trout Springs Allotment, and flow onto adjacent allotments.

## **H. Monitoring Plan**

The greenline transect monitoring method, as described in "Water Quality Monitoring Protocols - Report No. 8, (Protocols for Classifying, Monitoring, and Evaluating Stream/riparian Vegetation

on Idaho Rangeland Streams. Idaho Department of Health and Welfare, Division of Environmental Quality, 1992.)”, would be the primary monitoring tool.

No greenline transects have been established in the Trout Springs or Hanley FFR allotments as of November 2003. The monitoring outlined in this plan calls for transects to be established on the Middle Fork of the Owyhee River, West Fork Red Canyon, Squaw Creek, Cottonwood Creek, Pleasant Valley Creek, Thomas Creek, Little Thomas Creek, Smith Creek, and Little Smith Creek in the year 2004.

Photo trend points have been established in the Trout Springs exclosure, and on the North Fork of the Owyhee River. Additional Photo Trend Points would be established on the Middle Fork of the Owyhee River, West Fork Red Canyon, Squaw Creek, Cottonwood Creek, Pleasant Valley Creek, Thomas Creek, Little Thomas Creek, Smith Creek, and Little Smith Creek in the year 2004.

Utilization studies, for herbaceous and woody species, would be conducted annually as discussed in Section C of this plan.

Stream temperature would be monitored at 5 year intervals, or as deemed necessary to gather background data and to determine compliance with Idaho Water Quality Standards.

Proper Functioning Condition (PFC) assessments would be conducted at 10 year intervals, or when a change in functioning condition is apparent, whichever comes sooner.

All monitoring is subject to future funding and available personnel.

# Appendix C

## Mitigation

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1. Site specific surveys will be conducted for special status species prior to implementation of all the projects. In the event of discovery of resource values that might be impacted by the project, the project will be relocated or modified to such an extent that the impacts will be avoided or mitigated to an acceptable level.
2. Site specific surveys will be conducted for rare animal species prior to implementation of all the projects. In the event of discovery of resource values that might be impacted by the project, the project will be relocated or modified to such an extent that the impacts will be avoided or mitigated to an acceptable level.
3. Site specific surveys will be conducted for cultural values prior to implementation of all the projects. In the event of discovery of significant cultural resource values that might be impacted by the project, the project will be relocated or modified to such an extent that the impacts will be avoided or mitigated to an acceptable level, or other mitigation measures proposed and implemented.
4. All soil surfaces exposed due to construction of rangeland projects (such as spring construction) will be seeded with a mixture of appropriate native species.
5. When developing Cottonwood Spring and Middle Fork Spring, water would be maintained at the source in accordance with BLM standards. To ensure the long-term productivity and ecological integrity of these springs, the source water area will be protected from livestock grazing.
6. No motorized equipment will be used to remove the fences within Squaw Creek WSA.

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# Appendix D

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