

Rangeland Health Assessment
Joost Section 15 Allotment (01199)

Table of Contents

General Allotment Information.....	1
Livestock Grazing Management.....	2
Idaho Standards for Rangeland Health.....	2
Standard 1: Watershed	3
Standard 2: Riparian Areas and Wetlands/Standard 3: Stream Channel and Floodplains	3
Standard 4: Native Plant Communities.....	4
Standard 5: Rangeland Seeding	5
Standard 6: Exotic Plant Communities	5
Standard 7: Water Quality	5
Standard 8: Threatened and Endangered Species	5
Appendices and Maps.....	6
Appendix 1. Indicators of Rangeland Health.....	6
Map(s).....	7

General Allotment Information

The Joost Section 15 Allotment (01199) is located approximately two miles southeast of Pine, Idaho, less than one-quarter mile from Anderson Ranch Reservoir’s tail waters eastern shore (Map 1). The allotment is comprised of about 397 acres of BLM-administered lands, one (1) acre of private land, one (1) acre of USFS land. This represents the most current and accurate estimate of allotment acreage.

The allotment is located within the Central Rocky Mountains, 43B, US Department of Agriculture (USDA) Major Land Resource Area (MLRA) (USDA, 2006). Elevation ranges from 4,600 feet to 5,000 feet. Major landforms consist of mountainsides and side slopes. The soil consists of Roanhide-Bauscher-Schoolhouse association (75%), Rainey-Schoolhouse-Oland association (20%) and Oland gravelly loam (5%). Approximately 95% is the South Slope Gravelly 12-16” ecological site with the remainder being Loamy 12-16” [ecological sites are named by their general soil type and precipitation (inches); actual precipitation at nearby Anderson Dam and Glens Ferry varied (Figure 1)]. The characteristic plant community for South slope gravelly is mountain big sagebrush with bluebunch wheatgrass, while Loamy 12-16” is mountain big sagebrush with Idaho fescue and bluebunch wheatgrass.

The BLM fire history records since 1957 indicate that 10 acres burned in the 2013 Curlew Fire (Map 1).

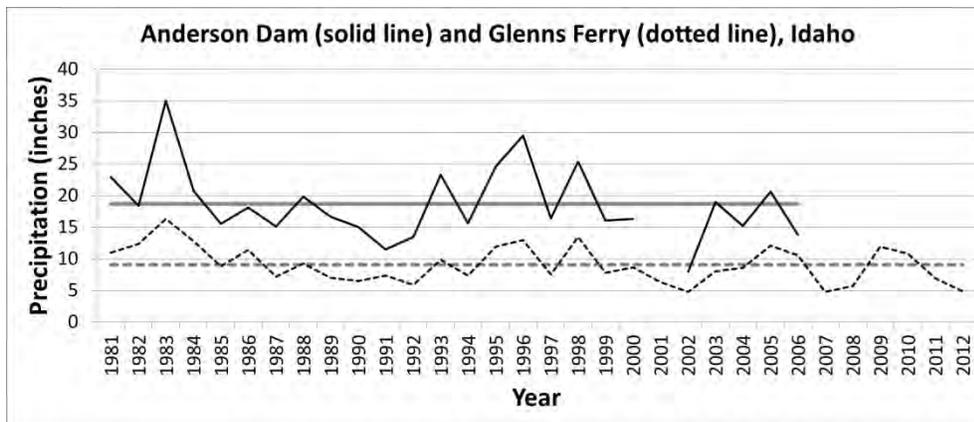


Figure 1. Annual and mean precipitation at Anderson Dam and Glens Ferry, Idaho (Source: National Climate Data Center).

Livestock Grazing Management

The Joost Section 15 Allotment was created in 1954 through a Section 15 lease. Currently, there is no active grazing authorization for it. The last active grazing permit was canceled by a Field Manager’s Decision dated May 29, 1992. Prior to cancellation, the permittee was authorized to graze livestock from May 1 through June 30, annually, for a total of 40 Animal Unit Months (AUMs; Table 1).

Table 1. Authorized use summary, Joost Section 15 Allotment, Elmore County, Idaho.

Authorization Number	Livestock		Season of Use		% Public Land	Authorized AUMs		
	Kind	Number	Begin	End		Active	Suspended	Permitted
None	Cattle	20	05/01	06/30	100	0	0	40

Because authorized livestock grazing has not occurred since 1991, there are no records of actual use between 1997 and 2013.

Idaho Standards for Rangeland Health

In 2004, the BLM conducted one rangeland health field assessment in the Joost Section 15 Allotment using *Interagency Technical Reference 1734-6, Interpreting Indicators of Rangeland Health ver. 3* (Map 1). The Elmore County Soil Survey (USDA-SCS, 1991) was used to identify ecological site descriptions, based on mapped soils and landforms, which were verified with field visits. Natural resources were assessed according to the Idaho Standards for Rangeland Health, as adopted by Idaho BLM in 1997. The following discusses resource conditions as they relate to each of the applicable standards.

Rangeland health field assessments used a variety of indicators to help determine rangeland health. However, no single indicator provided sufficient information to determine rangeland health and only those indicators appropriate to a particular site were used. Therefore, not all indicators were given equal weight from in different locations. For example, indicators #1-Rills and #6-Wind-scoured Blowouts/Deposition would not occur on a site with flat terrain and a gravelly soil surface. These indicators would be rated “none to slight” by default; but, would not be given the same weight as more applicable indicators for that site, e.g. #4-Bare Ground and #10-Plant Community Composition Relative to Infiltration and Runoff, when determining

overall attribute ratings for the site. In rangeland health field assessments, “none to slight” and “slight to moderate” categories reflected the normal range of variability expected for the ecological site. However, “moderate”, “moderate to extreme”, and “extreme” categories reflected a significant departure from expected conditions for the ecological site.

Standard 1: Watershed

Rangeland Health Field Assessment

Twelve of the 17 rangeland health indicators (1-11 and 14) relate to soil stability and hydrologic function (Table 2). The number in the range of departure columns represents the number of assessments with the indicator rating in that category. For example, the indicator for the ability of the soil surface to resist erosion (#8) rated in the “slight to moderate” range of departure from expected conditions for the ecological site at one site, etc.

Table 2. Watershed indicators of rangeland health, Joost Section 15 Allotment, Elmore County, Idaho.

Indicators of Soil/Site Stability and Hydrologic Function	Range of Departure				
	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
1-Rills				1	
2-Water Flow Patterns				1	
3-Pedestals/Terracettes				1	
4-Bare Ground					1
15-Gullies					1
6-Wind Scoured blowouts/depositions					1
7-Litter Movement				1	
8-Soil Surface Resistance to Erosion				1	
9-Soil Surface Loss or Degradation				1	
10-Plant Community Composition and Distribution Relative to Infiltration and Runoff					1
11-Compaction Layer					1
14-Litter Amount					1
Total Indicators = 12 (12 @ 1 site)				6	6

All of the indicators relative to soil/site stability and hydrologic function were rated within the normal range of variability for expected conditions for the ecological site; however, at least one location had extensive bare ground and rills.

Standard 2: Riparian Areas and Wetlands/Standard 3: Stream Channel and Floodplains

Perennial stream segments were examined and rated for functioning condition. Ephemeral (flowing naturally only in direct response to precipitation) and intermittent (naturally has a period of zero flow for at least one week during most years) streams are examined to determine if flow regimes validate delineations on National Wetlands Inventory maps (1996). Such streams are rated for functioning condition if obligate hydric vegetation is present. Obligate hydric vegetation are plant species that are dependent on available water, either as standing surface water or saturated soil, and do not persist in environments where substrates become seasonally dry.

Evaluations of Standards 2 and 3 are based on field inventories and examinations of streams and springs in 2009 (Map 1). To assess stream and spring health, interagency technical references

(TR-1737-15, 1998 and TR-1737-16, 1999) were applied which uses five general categories to rate the biological (plant life) and hydrological (physical) functioning condition of streams (lotic) or wetlands (lentic). Categories include: proper functioning condition (PFC); functioning-at-risk (FAR) with an upward trend; FAR with static trend; FAR with downward trend; and non-functioning (NF). Streams are reported by stream segment identification number, and springs are reported by name.

Elements of Standards 2 (e.g., vegetation that provides stream shading) and 3 (e.g., streambank stability and channel form) directly affect water quality (e.g., water temperature, sedimentation); therefore, Standards 2, 3, and 7 (Water Quality) and presence of redband trout were summarized in one table. Functioning condition ratings of stratified stream segments are discussed in this section. Water quality assessments for each stream are discussed in Standard 7: Water Quality. Fish are discussed in Standard 8: Threatened and Endangered Species.

Stream Conditions

A 0.2 mile, intermittent flow regime segment of Curlew Creek (CURLE-000.8) occurs on public land (Map 1). This segment was rated in PFC. The vegetation community was mainly willows, with small stretches containing sedges and rushes. Streambanks were vertically and laterally stable.

Spring Conditions

Two unnamed intermittent spring/seeps with nominal flows were rated in proper functioning condition (Map 1). Vegetation at the springs consisted of healthy communities of willows, conifers, and sedges/rushes.

Standard 4: Native Plant Communities

Rangeland Health Field Assessment

The rangeland health field assessment was conducted in a native plant community (Map 1). Nine of the 17 rangeland health indicators (8, 9 and 11-17) relate to biotic integrity (Table 3). The number in the range of departure columns represents the number of assessments with the indicator rating in that category (see Standard 1 for explanation).

Table 3. Native plant community rangeland health indicators, Joost Section 15 Allotment, Elmore County, Idaho.

Indicators of Biotic Integrity	Range of Departure				
	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
8-Soil Surface Resistance to Erosion				1	
9-Soil Surface Loss or Degradation				1	
11-Compaction Layer					1
12-Functional/Structural Groups					1
13-Plant Mortality/Decadence					1
14-Litter Amount					1
15-Annual Production				1	
16-Invasive Plants					1
17-Reproductive Capability of Perennial Plants					1
Total Indicators = 9 (9@1 site)				3	6

All of the indicators of biotic integrity rated were within the normal range of variability for expected conditions for the ecological site; however, some areas had less than expected native plant cover and cheatgrass was present (Table 3, Appendix 1).

Standard 5: Rangeland Seeding

No seedings have occurred; therefore, this standard does not apply.

Standard 6: Exotic Plant Communities

Although exotic plants may be present, native plants remain dominant in the vegetative communities. Therefore, this standard does not apply and plant communities are assessed under Standard 4.

Standard 7: Water Quality

IDEQ presumes that all intermittent streams meet minimum applicable water quality standards (temperature standards for cold water biota), as the period of time in which flows are 1-cubic foot-per-second or greater commonly occurs only as a result of spring snowmelt, or short term summer rainfall events. Curlew Creek has an intermittent stream flow regime so standards for seasonal cold water biota apply, and it meets this standard.

Standard 8: Threatened and Endangered Species

Plants

Approximately 44 acres were surveyed for federally-listed and BLM Special Status Species in September 2004. None of these plant species are currently known to occur.

Wildlife

The general health of upland and riparian communities is important for a broad diversity of wildlife, including sensitive species. Habitat was evaluated using riparian information (Standard 2) and native upland plant community information (Standard 4). These assessments provide information regarding abundance, diversity, vigor, cover of plants, structure and trend of plant communities, grazing utilization, and weed presence.

The gray wolf was removed from the Endangered Species list in 2009. However, it remains as a BLM Special Status Species. A wolf pack occurs within the Trinity Mountain area to the northwest; this allotment falls on the edge of the pack's known range. No livestock problems associated with the wolf pack are known to have occurred in this area.

The northern slopes of the allotment are occupied by Douglas-fir stands which provide potential habitat for at least two BLM Special Status Species, flammulated owls and northern goshawks. Surveys for these two species were conducted in the summer of 2004; neither species was detected.

The area provides suitable late spring/summer/fall habitat for both mule deer and elk.

Fish

Curlew Creek has an intermittent stream flow and does not support a fishery.

Appendices and Maps

Appendix 1. Indicators of Rangeland Health

Allotment – Pasture		1199
Identifier		B-111
Location		01N10E05
Ecological Site		S. Slope Gravelly
Indicator	Attribute	
1. Rills	S-H	S-M
2. Water Flow Patterns	S-H	S-M
3. Pedestals/Terracettes	S-H	S-M
4. Bare Ground	S-H	N-S
5. Gullies	S-H	N-S
6. Wind Scoured, Blowouts and/or Depositions	S-H	N-S
7. Litter Movement	S-H	S-M
8. Soil Surface to Erosion	S-H-B	S-M
9. Soil Surface Loss or Degradation	S-H-B	S-M
10. Plant Community Composition and Distribution Relative to Infiltration and Runoff	H	N-S
11. Compaction Layer	S-H-B	N-S
12. Functional / Structural Groups	B	N-S
13. Plant Mortality / Decadence	B	N-S
14. Litter Amount	H-B	N-S
15. Annual Production	B	S-M
16. Invasive Plants	B	N-S
17. Reproductive Capability of Perennial Plants	B	N-S

S= Soil/Site Stability; **H**= Hydrologic Function; **B**= Biotic Integrity

N-S = None to Slight departure from expected range **S-M** = Slight to Moderate departure from expected range

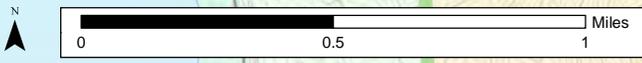
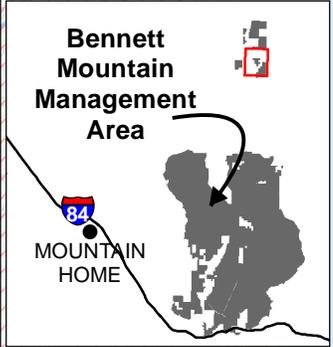
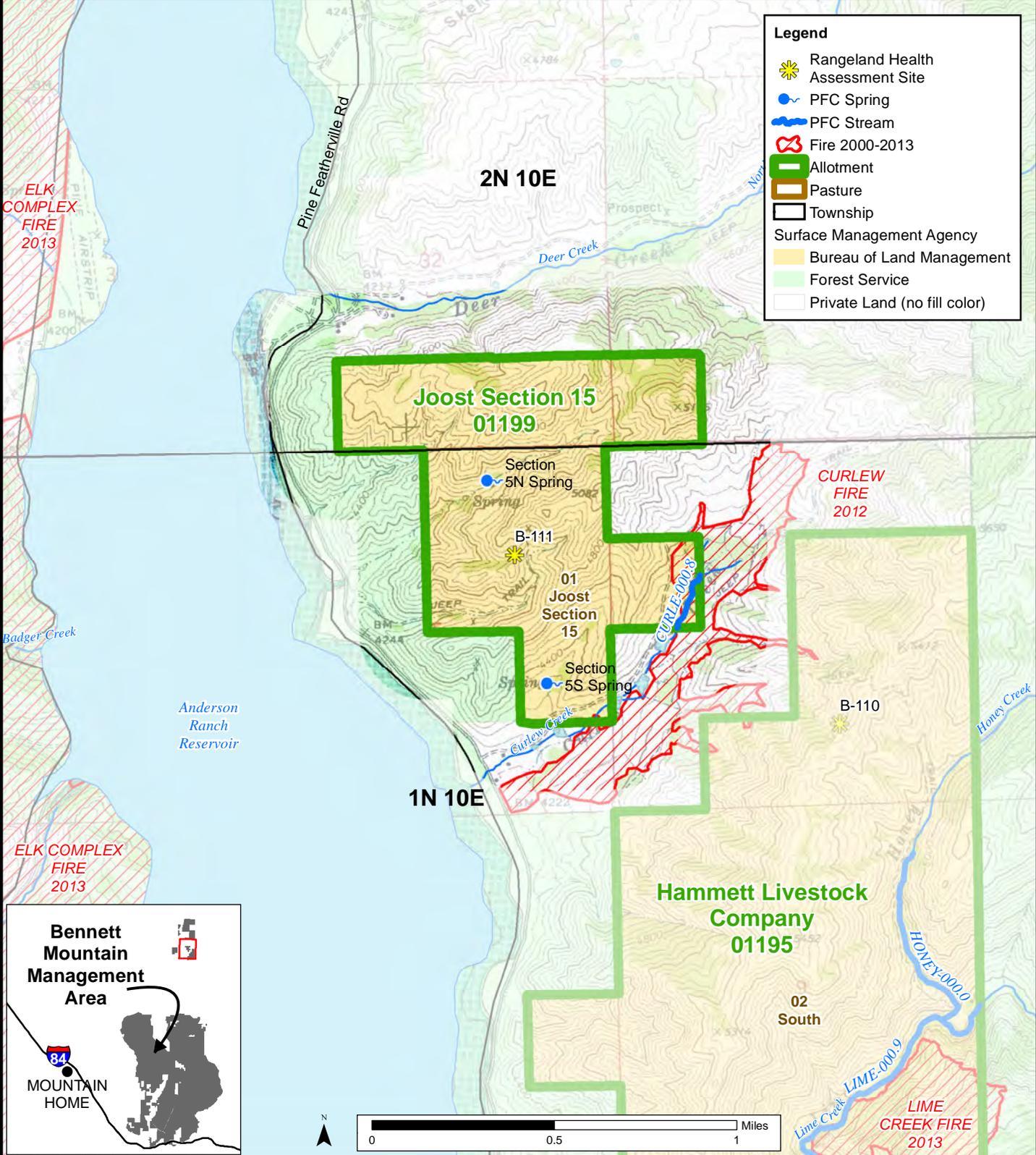
M = Moderate departure from expected range **M-E** = Moderate to Extreme departure from expected range

E = Extreme departure from expected range

Map(s)

Joost Section 15 Allotment (01199)

Assessment Map 1: Fire History, Rangeland Health Assessment, Monitoring, and Riparian



U.S. Department of the Interior
 Bureau of Land Management, Idaho
 Boise District, Four Rivers Field Office
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EVALUATION REPORT

Achieving the Idaho Standards for Rangeland Health

Field Office: IDB010 Four Rivers

Allotment Name and Number: Joost Section 15 (01199)

Name of Permittee(s): None

Introduction

The Joost Section 15 Allotment (01199) is located approximately two miles southeast of Pine, Idaho and less than one-quarter mile from Anderson Ranch Reservoir's tail waters eastern shore. The allotment is comprised of about 400 acres of BLM-administered public land.

Applicable Standards:

The Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management are used as management goals to maintain or improve resources, protect cultural resources, and sustain productivity of the land. Standards that are appropriate to a particular allotment are used, and provide information which is used to determine the health and condition of public lands. This document is the evaluation of information presented in the allotment rangeland health assessment and whether rangeland health standards are being achieved. The determination of what significant factors or causal agents are involved and whether or not livestock management practices are in conformance with applicable guidelines is presented in the Determination Document.

Standards 1 (Watersheds), 2 (Riparian Areas & Wetlands), 3 (Stream Channels & Floodplains), 4 (Native Plant Communities), 7 (Water Quality), and 8 (Threatened and Endangered Plants and Animals) apply to the allotment. Standard 5 (Seedings) was not applied because there are no seedings. Standard 6 (Exotic Plant Communities) was not applied because, although there are limited exotic plants species known to occur here, plant communities are assessed under Standard 4 (Native Plants).

EVALUATE STANDARDS

Standard 1: Watersheds

_____ Standard does not apply
Watersheds provide for the proper infiltration, retention, and release of water appropriate to soil type, vegetation, climate and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow.

Evaluation and Information Sources

One rangeland health field assessment was conducted in 2004.

Rangeland Health

Although there were areas of bare ground with rills and pedestalling, all indicators of rangeland health relative to biotic integrity were rated within the normal range of variability of expected conditions for the ecological site.

Rangeland Health Changes

No long-term monitoring studies have been established to record changes or trends in the plant community. The effects of the 2013 wildfire are unknown; however, they effect <3% of the allotment.

Evaluation Finding – Allotment/watershed is:

- Meeting the Standard
- Not Meeting the Standard, but making significant progress towards meeting
- Not Meeting the Standard

Rationale for Evaluation Finding

No resource issues have been identified.

Standard 2: Riparian Areas and Wetlands

_____ Standard does not apply
Riparian-wetland areas are in properly functioning condition appropriate to soil type, climate, geology, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow.

Evaluation and Information Sources

Topographic maps, aerial photography interpretation, and field visits.

Rangeland Health

CURLE-000.8, a 0.2-mile segment of Curlew Creek, was rated in proper functioning condition (PFC), and was vegetated with willows, and a limited population of sedges/rushes due to limited stream flows. Stream banks were vertically and laterally stable. Two springs/seeps with nominal flows were rated in PFC. Vegetation consists of healthy communities of willows, and sedges and rushes.

Evaluation Finding – Allotment/watershed is:

- Meeting the Standard
- Not Meeting the Standard, but making significant progress towards meeting
- Not Meeting the Standard

Rationale for Evaluation Finding

Riparian vegetation is adequate to provide for proper nutrient cycling, hydrologic cycling, and energy flow of the riparian systems in the allotment.

Standard 3: Stream Channel and Floodplains

_____ Standard does not apply
Stream channels and floodplains are properly functioning relative to the geomorphology (e.g., gradient, size, shape, roughness, confinement, and sinuosity) and climate to provide for proper nutrient cycling, hydrologic cycling, and energy flow.

Evaluation and Information Sources

Topographic maps, aerial photography interpretation, and field visits.

Rangeland Health

CURLE-000.8 was rated in PFC; streambanks and floodplains were well stabilized by deep-rooted woody and some herbaceous hydric vegetation. The two small springs/seeps have inadequate flows for streambanks and floodplains; therefore, the standard is not applied.

Evaluation Finding – Allotment/watershed is:

- Meeting the Standard
- Not Meeting the Standard, but making significant progress towards meeting
- Not Meeting the Standard

Rationale for Evaluation Finding

Riparian vegetation is adequate to provide hydrologic stability to the stream channel and floodplains.

Standard 4: Native Plant Communities

Standard does not apply

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

Evaluation and Information Sources

One rangeland health field assessment was conducted in 2004.

Rangeland Health

The native plant community was diverse in most areas. Although some areas were bare of contained cheatgrass, the native plant communities were relatively healthy in this allotment.

Rangeland Health Changes

No long-term monitoring studies have been established to document changes or trends in the plant community. The effects of the 2013 wildfire are unknown; however, they effect <3% of the allotment.

Evaluation Finding – Allotment/watershed is:

- Meeting the Standard
- Not Meeting the Standard, but making significant progress towards meeting
- Not Meeting the Standard

Rationale for Evaluation Finding

All indicators of rangeland health were rated within the normal range of variability for the ecological site.

Standard 5: Seedings

Standard does not apply

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

Evaluation and Information Sources

Rangeland health field assessments, field visits, and allotment files.

Standard 6: Exotic Plant Communities, Other than Seedings X Standard does not apply
Exotic plant communities, other than seedings, will meet minimum requirements of soil stability and maintenance of existing native and seeded plants.

Evaluation and Information Sources

Rangeland health field assessments, field visits, and allotment files.

Standard 7: Water Quality _____ Standard does not apply
Surface and ground water on public lands comply with the Idaho Water Quality Standards.

Evaluation and Information Sources

Aerial photo interpretation, topographic maps, and field visits, Idaho Department of Environmental Quality (IDEQ) data.

Rangeland Health

Curlew Creek has an intermittent stream flow, and met IDEQ standards for seasonal cold water biota.

Evaluation Finding – Allotment/watershed is:

- X Meeting the Standard
- _____ Not Meeting the Standard, but making significant progress towards meeting
- _____ Not Meeting the Standard

Rationale for Evaluation Finding

Curlew Creek is in compliance with applicable Idaho water quality standards.

Standard 8: Threatened and Endangered Plants and Animals _____ Standard does not apply
Habitats are suitable to maintain viable populations of threatened and endangered, sensitive, and other special status species.

Evaluation and Information Sources

Rangeland health field assessments, photographs, field visits, plant and wildlife surveys, and Conservation Data Center.

Rangeland Health

Plants

No federally listed plant species are known to occur.

Wildlife

No federally listed or candidate wildlife species are known to occur. The allotment’s northern slopes are occupied by Douglas-fir stands that provide potential habitat for flammulated owls and northern goshawks, BLM Special Status Species. Neither was located during surveys in summer, 2004.

The area provides late spring/summer/fall habitat for both mule deer and elk.

Fish

No fisheries are present.

Rangeland Health Change

No long-term monitoring studies have been established to record changes or trends in the plant community.

Evaluation Finding – Allotment/watershed is:

- Meeting the Standard
- Not Meeting the Standard, but making significant progress towards meeting
- Not Meeting the Standard

Rationale for Evaluation Finding

Native plant diversity is being maintained, and the occurrence of invasive annuals has not yet compromised the capability of the allotment to support a diversity of native plant and wildlife species. The effects of the 2013 wildfire are unknown; however, they effect <3% of the allotment.