

CHIPPS CREEK ALLOTMENT EVALUATION

**Achieving the Idaho Standards for Rangeland Health
And
Conformance with the Guidelines for Livestock Grazing Management**



Introduction

This document is an evaluation of Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management of the public lands administered by the Salmon Field Office (SFO) of the Bureau of Land Management (BLM) within the Chipps Creek Allotment.

This is the first in a series of documents, including the Chipps Creek Allotment Evaluation, and the appropriate National Environmental Policy Act (NEPA) documentation and subsequent Decision(s) that would change management where needed on the Chipps Creek Allotment.

This evaluation reports the condition and/or function of public land resources within the Chipps Creek Allotment to the authorized officer, the Salmon Field Manager. The authorized officer reviews the findings in this evaluation to determine whether the eight Standards for Rangeland Health are being met and whether current livestock management conforms to the Idaho Guidelines for Livestock Grazing Management.

The assessed condition/function of the Chipps Creek Allotment Evaluation will be used in the NEPA process. An environmental assessment (EA) will be written addressing all resource concerns identified within the Chipps Creek Allotment. If existing grazing management practices or levels of grazing use on the Chipps Creek Allotment are determined to be a significant factor in failing to achieve one or more of the eight Standards, the BLM is required by regulation (43 CFR 4180.1) to make grazing management adjustments.

Implementation of new management will begin following completion of the NEPA process, but full implementation of revised grazing plans, if needed, and/or range improvement projects associated with these plans may take several years. The new plans will be developed in consultation and coordination with the affected permittees, the agency having lands or managing resources within the area and other interested parties.

The SFO completed a Resource Management Plan (RMP) in 1987 and amended that plan in 2001. The Lemhi RMP will provide program guidance in the SFO until replaced by a new Land Use Plan. The Lemhi Resource Area Ecological Site Inventory of 1983 provides documentation of rangeland conditions.

Background

The Chipps Creek Allotment is located in Lemhi County, Idaho and comprises 1,669 acres of public land. The allotment lies within Sections 11, 12, 13, 14, 24, and 25 of Township 21 North and Range 21 East, Boise Meridian (Map 1). This evaluation and determination addresses land health conditions on BLM public lands only.

Elevations range from approximately 4,000 feet to 5,000 feet. Topography varies from stream drainage bottoms to steep mountain ravines and ridge tops with rocky outcrops. Slopes range from undulating to very steep. Average annual precipitation is 9 inches, most of which occurs in May and June as rain (Western Regional Climate Center, 2007). Soils in the Chipps Creek Allotment are predominantly clay loams and loams ranging from shallow to deep. These soils are affected by climate and parent material, and were formed primarily from alluvium.

Vegetation in the Chipps Creek Allotment reflects the diversity of ecological conditions across the landscape. The dominant plant communities and habitat types vary depending upon the soils, precipitation, elevation, slope, and aspect. Vegetation includes wetland and riparian communities, drier upland sites, and forested habitats at higher elevations.

Livestock Grazing History

Livestock have grazed in the Salmon River corridor since the 1860's, after the discovery of gold. Large bands of sheep and herds of cattle grazed the valley, often season long or until winter snows began to limit forage availability.

This allotment encompasses 1,669 acres of public land and is a single pasture grazed for 30 days in the spring. Rangeland condition was rated as 119 acres in "Good" condition, 1,168 acres "Fair" and 382 acres "Unmapped" timber and rock outcrop. The allotment is stocked at approximately 31 acres/AUM.

Figure 1: Ecological conditions of the Chipps Creek Allotment (ESI, 1983).

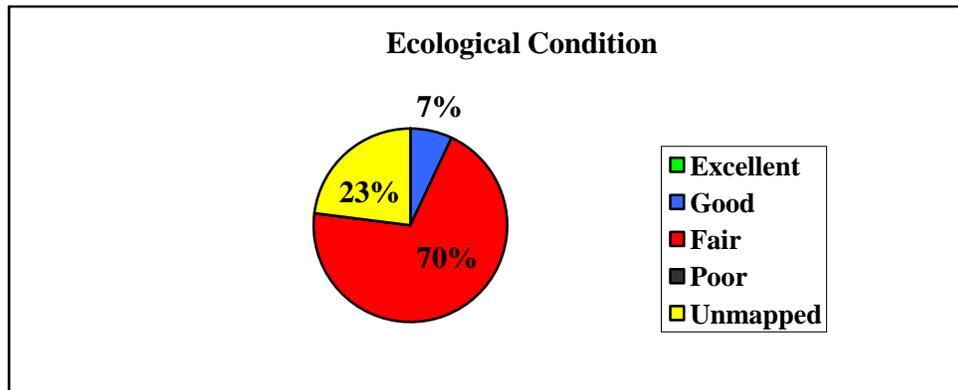


Table 1: The current permit/preference on the Chipps Creek Allotment:

No. Livestock/Kind	Dates	% Public Land	Permittee
225 Cattle	05/11 – 06/10	13%	Eugene F Edwards c/o Paul Edwards
225 Cattle	05/11 – 06/10	13%	Edwards & Son c/o Edgar S. Edwards
Preference:	54 AUMs Active	245 AUMs Suspended	299 AUMs Total

Table 2: The objectives for the number of AUMs for the Chipps Creek Allotment from the RMP, as well as the average actual grazing use on the allotment from 1998 to 2007 as reported by actual use booklets submitted by the permittees at the end of the grazing season.

AUMs from the RMP:	Average Actual Use for the previous 10 years:
RMP short-term objective: 42 AUMs	57 AUMs
RMP long-term objective: 42 AUMs	
RMP Active preference: 42 AUMs	

Process

This evaluation was completed in accordance with BLM regulations regarding Rangeland Health Standards. Rangeland Health Standards are described in detail in the *Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management*. Standards are statements of physical and biological condition or degree of function required for healthy sustainable lands. Achieving or making significant progress towards these functions and conditions is required of all uses of public lands, as stated in 43 CFR 4180.1.

This evaluation will report condition and/or function for the following eight Idaho Standards for Rangeland Health:

- Standard 1: Watersheds
- Standard 2: Riparian and Wetland Areas
- Standard 3: Stream Channel/Floodplain
- Standard 4: Native Plant Communities
- Standard 5: Seedings
- Standard 6: Exotic Plant Communities, Other than Seedings
- Standard 7: Water Quality
- Standard 8: Threatened and Endangered Plants and Animals

Procedure to determine conformance with the standard(s):

The Chipps Creek Allotment was assessed according to Interagency Technical Reference 1734-6 “Interpreting Indicators of Rangeland Health.” This qualitative process evaluates 17 “indicators” to assess three interrelated components of rangeland health: soil/site stability, hydrological function, and biotic integrity. Trend monitoring data, existing inventories, field visits, and historical photographs are used by the ID team to assess condition and function. The Natural Resource Conservation Service (NRCS) has developed Ecological Site Descriptions (site guides) based on specific soil types, precipitation zones and location. These describe various characteristics and attributes including the vegetative species and relative percentage each are expected to be present on the site. The ID team refers to these site descriptions while completing the Rangeland Health Assessment (RHA), which helps the ID team determine the departure from what is expected for the site assessed based upon soil/site stability, hydrologic function, and biotic integrity.

Rangeland Health Assessment Site Selection:

The sites selected for the RHAs were chosen based upon representative soil type and ecological sites of the allotment, and are representative of rangeland conditions occurring on the Chipps Creek Allotment. Soil type was determined by digging soil pits and comparing soils maps of the area, ensuring that the ID team collected data for the RHAs on soils representative of that portion of the allotment. This RHA was conducted on the Cronks/Challis Association on south slope

gravelly loams within a Wyoming Big Sagebrush/Bluebunch Wheatgrass (*Artemisia tridentata wyomingensis/Pseudoroegneria spicata*) rangeland site.

Standard 1 (Watersheds)

□ Standard doesn't apply

Evaluation and Information Sources (*required regardless of which box is checked*): Rangeland Health Assessments (May 29, 2008) including visual observations, line-point intercept data, field visits, project inspections throughout the allotment in 2008, and ID team meetings on 04/16/08 and 11/5/2008.

Watersheds should provide proper infiltration, retention, and water release that are specific to the soil type, vegetation, climate, and landform in order for proper nutrient and hydrological cycling as well as energy flow, to occur. The RHA found *none to slight* departure from the rangeland site guide for this site. No evidence of rilling, gullying, water flow patterns, plant pedestalling, or fine litter movement was observed. Soil surface is stable, intact, and no compaction layer evident. Bare ground was 20% from the line point intercept data. Vegetative cover was 66% which is similar to the site guide description (50%-60%).

Hydrologic Function		Soil and Site Stability	
Rating		Rating	
Indicators:	RHA	Indicators:	RHA
Rills	<i>None to Slight</i>	Rills	<i>None to Slight</i>
Water-flow patterns	<i>None to Slight</i>	Water-flow patterns	<i>None to Slight</i>
Pedestals and/or terracettes	<i>None to Slight</i>	Pedestals and/or terracettes	<i>None to Slight</i>
Bare ground	<i>None to Slight</i>	Bare ground	<i>None to Slight</i>
Gullies	<i>None to Slight</i>	Gullies	<i>None to Slight</i>
Soil surface resistance to erosion	<i>None to Slight</i>	Wind Scour	<i>None to Slight</i>
Soil surface loss or degradation	<i>None to Slight</i>	Litter movement	<i>None to Slight</i>
Plant community composition and distribution relative to infiltration	<i>None to Slight</i>	Soil surface resistance to erosion	<i>None to Slight</i>
Compaction layer	<i>None to Slight</i>	Soil surface loss or degradation	<i>None to Slight</i>
Litter Amount	<i>None to Slight</i>	Compaction layer	<i>None to Slight</i>
Overall Ratings:	<i>None to Slight</i>	Overall Ratings:	<i>None to Slight</i>

Overall, the watersheds within the Chipps Creek Allotment do not deviate from the site guide description and provides for water infiltration, retention, and release appropriate for the soils, vegetation, climate, and land forms present. The plant community composition of grasses, forbs and shrubs is well distributed and productive. There is adequate litter present , and the soils appear stable with little evidence of movement or erosion.

1 <input checked="" type="checkbox"/> Meeting the Standard	4 <input type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are significant factors
2 <input type="checkbox"/> Not Meeting the Standard, but making significant progress towards	
3 <input type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are not significant factors	5 <input type="checkbox"/> Not Meeting the Standard, cause not determined

Standard 2 (Riparian Areas and Wetlands)

Standard doesn't apply

Evaluation and Information Sources (*required regardless of which box is checked*): Rangeland Health Assessments including ID team meetings, visual observations, and Proper Functioning Condition assessments completed during field visits throughout the allotment in 2006-08.

Riparian and wetland areas should be in properly functioning condition appropriate to the soil types, climate, geology, and landform to provide for proper nutrient and hydrologic cycling, as well as, energy flow. The ID team members evaluated undeveloped springs and used data from stream condition class ratings to determine the vigor, age-class distribution, and composition of riparian and wetland vegetation present on the allotment. Riparian and wetland vegetation should also control erosion, stabilize streambanks, provide shading, filter sediment, aid floodplain development, dissipate energy, delay flood water, and increase groundwater recharge.

Chipps Creek Allotment has very limited riparian vegetation and wetland areas. A short segment (0.15 mile) of a spring-fed tributary of Chipps Creek on the USFS boundary is in the allotment and is rated as Functioning at-Risk static trend. Another short segment (0.1 mile) of Chipps Creek on BLM that is fenced into the USFS allotment upstream is in PFC condition with mature conifer and riparian trees and shrubs. Twelve wetland springs are present on the allotment from both natural and irrigation enhanced sources. Of these, none are developed with water trough and the sources are not protected from grazing.

The lower channel of Gorley/Spring Creek occurs on the allotment below the Edwards private before flowing into wetland areas along the Salmon River. This area is in Functional at-Risk condition with an upward trend. Some historic grazing impacts were observed along the stream channel, which appears to be unauthorized in the summer months.

All riparian species at the Chipps Creek and Gorley Creek portions appeared to be healthy and were reproducing. Multiple age-classes of aspen, cottonwood and willows were present. The herbaceous riparian species including sedges, rushes, and riparian grasses help stabilize the soils and banks along the springs and help maintain the integrity of the wetland soil characteristics within the spring complex.

Impacts to the spring complexes appear to be minimal to moderate with some evidence of trampling or browsing of woody riparian species occurs. Herbaceous riparian vegetation

including sedges, rushes, and riparian grasses are reproducing, but are also limited in extend due to the ephemeral nature of the spring.

Overall condition of riparian vegetation on the allotment is very good and supports a diverse riparian community capable of maintaining the hydric soils and wetland characteristics. Grazing management of the Chipps Creek Allotment for early season use helps maintain and improve the conditions of the riparian vegetation.

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Standard 3 (Stream Channel/Flood plain)

Standard doesn't apply

Evaluation and Information Sources (*required regardless of which box is checked*): Rangeland Health Assessments including ID team meetings, visual observations, and Proper Functioning Condition assessments completed during field visits throughout the allotment in 2006-08.

Stream channels and floodplains should be properly functioning relative to the geomorphology and climate in order to provide proper nutrient and hydrologic cycling, and energy flow. Indicators that ID team members used to evaluate this standard include whether steam channels and floodplains dissipate energy and transport sediment, have access to floodplains, have limited compaction from human activities, and have stable streambanks.

The Chipps Creek Allotment has very limited stream channel habitat. A short segment (0.15 mile) of a spring-fed tributary of Chipps Creek is in the allotment and is rated as Functioning at-Risk static trend. Another short segment (0.1 mile) of Chipps Creek on BLM that is fenced into the USFS allotment upstream is in PFC condition with mature conifer and riparian trees and shrubs.

The lower channel of Gorley/Spring Creek occurs on the allotment below the Edwards private before flowing into wetland areas along the Salmon River. This area is in Functional at-Risk condition with an upward trend. Some historic grazing impacts were observed along the stream channel which appears to be unauthorized in the summer months.

Overall, these short segments of stream channel have proper riparian vegetation and stable conditions, can access their floodplain and for the most part have desirable stream bank characteristics.

Chipps Creek allotment upland
spring 29 May 2008



Chipps Creek tributary spring
29 May 2008



Gorley Creek on BLM (lower end) 29 May 2008



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Standard 4 (Native Plant Communities)

Standard doesn't apply

Evaluation and Information Sources (*required regardless of which box is checked*): Rangeland Health Assessment (May 29, 2008) including visual observations, line-point intercept data, soil stability tests, field visits throughout the allotment in 2008, and ID team meetings on 04/16/2008 and 11/5/2008.

Healthy, productive, and diverse native animal habitat and populations of native plants should be maintained or promoted that is appropriate to the soil types present on the Chipps Creek Allotment, and should provide for proper nutrient cycling, hydrologic cycling, and energy flow. Native plant communities were evaluated throughout the allotment based upon indicators of biotic integrity (Table 4) of the native plant communities present, which includes information from the RHA completed in the allotment in May 2008. The ID team evaluated upland health conditions in all native plant communities including sagebrush and grassland areas, forested areas, noxious weed and cheatgrass infestations, and special status plants occurring in the Chipps Creek Allotment. Special status plants will be discussed in detail under Standard 8: Threatened and Endangered Plants and Animals.

Uplands:

The biotic integrity ratings for the nine indicators of rangeland health that is associated with plant health and function for this rangeland site are shown below. Soil compaction layers or evidence of surface loss or degradation were not present. Annual production estimated at 350 lbs./acre, which is within the expected range for this site (300 lbs./acre – 450 lbs./acre) description. Biological crusts are lower than expected for the site (trace), compared to the site guide (15-25%). Cheatgrass and knapweed are scattered throughout the site

Table 4. The biotic integrity ratings for the nine indicators of rangeland health that is associated with plant health and function.

Biotic Integrity	
Indicators:	
Soil surface resistance to erosion	<i>None to Slight</i>
Soil surface loss or degradation	<i>None to Slight</i>
Compaction layer	<i>None to Slight</i>
Functional/Structural Groups	<i>None to Slight</i>
Plant Mortality/Decadence	<i>None to Slight</i>
Litter Amount	<i>None to Slight</i>
Annual Production	<i>None to Slight</i>

Biotic Integrity	
Indicators:	
Invasive plants	<i>Moderate</i>
Reproductive capability of perennial plants	<i>None to Slight</i>
Overall Ratings:	<i>None to Slight</i>

Overall, the native plant communities within the Chipps Creek Allotment are healthy, productive, and provide diverse animal habitat and populations of native plants. The native plant community diversity, species composition, productivity, and litter amount allows proper functionality of ecological processes.

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Standard 5 (Seedings)

Standard doesn't apply

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3 <input type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are not significant factors	5 <input type="checkbox"/> Not Meeting the Standard, cause not determined

Standard 6 (Exotic Plant Communities, Other than Seedings) Standard doesn't apply

Evaluation and Information Sources (*required regardless of which box is checked*):

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3 <input type="checkbox"/> Not Meeting the Standard, current livestock grazing management practices are not significant factors	5 <input type="checkbox"/> Not Meeting the Standard, cause not determined

Standard 7 (Water Quality)

Standard doesn't apply

Evaluation and Information Sources (*required regardless of which box is checked*): State of Idaho; Department of Environmental Quality "Lemhi River Watershed Assessment" and 303d stream list/Idaho 2002 305(B) Integrated Report (Final).

Chipps Creek and Gorley Creek are not listed as water quality impaired by DEQ and are currently meeting standards.

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Standard 8 (Threatened and Endangered Plants and Animals) Standard doesn't apply

Evaluation and Information Sources (*required regardless of which box is checked*): Lemhi Resource Management Plan (1987), and Idaho Conservation Data Center (CDC) database. Rangeland Health Assessments including visual observations and line-point intercept data. Field visits were completed throughout the allotment in 2008.

Maintaining habitat that is suitable for viable populations of special status species, including threatened, endangered and BLM sensitive species is an important component of managing public lands. The ID team used several parameters to assess the existing and potential habitat of these species, including annual population monitoring of sensitive plant species, and field observations of fisheries and wildlife habitat and species presence.

The allotment provides habitat for various Special Status Species. Type 1 Special Status Species are those species that were listed as threatened or endangered, or were proposed or candidates for listing under the Endangered Species Act in 2003. Type 2 Special Status Species are species that are experiencing significant declines throughout their range with a high likelihood of being listed in the foreseeable future due to their rarity and/or significant endangerment factors. Type 3 Special Status Species are species that are experiencing significant declines in population or habitat and are in danger of regional or local extinctions in Idaho in the foreseeable future if factors contributing to their decline continue.

Surveys and field visits in 2008 indicated that no Threatened, Endangered, or BLM Sensitive plant or fish species are present in the allotment.

Type 1 Special Status wildlife species that have been documented on, or near, the Chipps Creek Allotment include the bald eagle. The allotment is bordered on the east by the Salmon River. There is an active eagle nest on private land within a mile of the allotment and bald eagle winter along the river for the entire distance that it borders the allotment. While most of the bald eagle foraging in the area occurs over the river some foraging may occur on the allotment. The allotment is providing habitat for prey species for bald eagles.

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ID Team:	Mark Bonner	Rangeland Management Specialist
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	Jude Trapani	Fisheries Biologist
	Alexia Cochrane	Botanist
	Tricia Miller	SCEP Fisheries Biologist

