

Land Health Evaluation Report
Cottonwood Springs Allotment
Bureau of Land Management
Butte Field Office

Introduction and Assessment Process

This report documents whether land health standards were achieved for the Cottonwood Springs Grazing Allotment administered by the Bureau of Land Management's Butte Field Office. Standards for Rangeland Health were evaluated utilizing an interdisciplinary team (ID team) of resource specialists.

Rangeland Health Standards for Western Montana are described in detail in the Record of Decision (ROD) issued for Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Montana, North Dakota and South Dakota (August 1997). The preamble of the Western Montana Standards states: "The purpose of the S&Gs (Standards and Guidelines) are to facilitate the achievement and maintenance of healthy, properly functioning ecosystems within the historic and natural range of variability for long-term sustainable use." 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 land as stated in 43 CFR 4180.1.

This report contains an evaluation of each of the five standards:

- Standard #1 Upland Health
- Standard #2 Riparian/Wetland Health
- Standard #3 Water Quality
- Standard #4 Air Quality
- Standard #5 Biodiversity

Available monitoring data from both upland and riparian sites, existing inventories, historical photographs and standardized methodology are used by an ID team to assess condition and function. Condition/function declarations regarding are expressed as:

- Proper Functioning Condition (PFC)
- Functioning at Risk (FAR), which is assigned a trend of up, down, static or not apparent
- Nonfunctioning (NF)

Standards are met when conditions are at PFC or FAR with an upward trend. This is dependent on scope and scale. The BLM will consider the information contained in this report, along with public scoping and other sources of information, to make a determination regarding causal factors and courses of action to be analyzed in a National Environmental Policy Act (NEPA) document.

General Allotment Summary

Allotment Name/Number: Cottonwood Springs 11025

Current Management Category: M (Maintain)

Location: Broadwater County, T2N, R1W, Sec. 6 and T3N, R1W, Sec. 32

Public Acres: 612

Season of Use: 6/1-9/30

Public Animal Unit Months: 118

Assessment Date/Period: 5/21/2009

The Cottonwood Springs allotment is located approximately 12 miles northwest of Threeforks, MT. Elevation on BLM land ranges from approximately 5,000 to 5,200 feet. Landforms in the allotment include plains, hillsides, alluvial fans, escarpments, strath terraces, and knolls. Slopes generally range from 2-60%. The predominant plant community is a big sagebrush-steppe.

Historically, the public land within Cottonwood Springs allotment was part of the former Silver Sage allotment (20213) until it was divided in 1995 into two allotments (i.e. Shoddy Springs and Cottonwood Springs). The permitted use for Silver Sage allotment was for 51 cattle from 6/1 to 8/31 (154 AUMs) since at least 1976.

Current and past BLM involvement with this allotment has been largely limited to administrative functions. A term and condition in the grazing permit states that it can be grazed in conjunction with the permittee's livestock operation so long as use is not detrimental to the public land and use is within the permitted grazing dates. Public lands within the allotment are listed as a potential disposal parcels.

Summary of Standards Achieved						
--Yes, No, N/A (Not Applicable)--						
Allotment Name	Allot #	1. Upland	2. Riparian	3. Water Quality	4. Air Quality	5. Biodiversity
Cottonwood Springs	11025	Yes	Yes	Yes	Yes	Yes

Rangeland Health Standards Evaluation and Rationale

The issue of scope and scale must be kept in mind when evaluating each standard. It is recognized that isolated sites within a landscape may be Functioning at Risk (FAR) and not meeting the standards; however, considering broader scope and scale, the area may be deemed in Proper Functioning Condition (PFC). Likewise, isolated sites may be in PFC, but, overall, the resource within the allotment or area could be FAR and not meeting standards. Therefore, no single indicator provides sufficient information to determine rangeland health. Indicators are used in combination to provide information necessary to make rangeland health determinations.

Western Montana Standard #1
“Uplands are in Proper Functioning Condition”

Finding Standard is met

Rationale

Uplands were assessed in the field at Cottonwood Springs allotment on 5/21/2009. The assessment included an evaluation of one representative eco-site for land health indicators and observations through a general allotment walk-through. NRCS/SCS ecological/range site reference guides were used to identify departures from the expected conditions at the eco-site and the other observed areas. These departures were then used to determine whether Montana land health upland standard is being met.

The soils at Cottonwood Springs allotment were stable with no appreciable wind or water erosion occurring. Observed gully erosion appeared to be a natural part of the landscape’s physical process. The hydrologic function appeared to be maintained by adequate water capture and infiltration over the majority of the allotment as evidenced by minimal erosion and observed vegetation productivity. Litter cover appeared sufficient for site protection. Noxious weeds were not identified; however, cheatgrass was a minor component.

There was some departure from the expected plant community structure that decreases its productivity. Bluebunch wheatgrass was less than anticipated and in many areas co-dominant with needle-and-thread or short cool-season bunchgrasses such as threadleaf sedge and prairie junegrass. Despite these changes from the expected condition, the biotic integrity still appeared intact. The plant community diversity was comparable to the reference guides. The vegetation was also vigorous with signs of past and present reproduction. Overall, the gathered information indicates that the uplands meet Montana land health standards.

Western Montana Standard #2
“Riparian and Wetland Areas are in Proper Functioning Condition”

Finding Standard is met

Rationale

One riparian reach was identified and evaluated within the allotment using the lotic Riparian Area Management guidebook. Riparian reach J-88 is located within an unnamed creek. The majority of this reach is a dry ephemeral wash. Only the lower ¼ of the reach had intermittent to perennial flows (about 0.2 miles).

The channel was confined and incised to bedrock, which was presumed to be from annual flash floods/high flow events. The stream was adequately dissipating the current low

flow stream energy. Some sedimentation was occurring from the upper ephemeral portion of the reach and as a result of deposition from adjacent, connected dry gullies, presumably from high flow events.

The riparian area, located in the lower portion of the reach, had reached its potential extent. Old cottonwoods and willows were present but appeared decadent and not reproducing. They did provide woody debris to help dissipate stream energy. Other riparian vegetation was present in the form of sedges and rushes. Although conifers, noxious/non-native species, and other upland species were encroaching into the reach, there still appeared to be adequate riparian vegetative cover in spots to protect banks and dissipate high energy stream flows.

Musk thistle, houndstongue, and other non-native species were found in the reach but did not appear detrimental to the overall functioning. Since the channel was incised to bedrock, it is vertically stable. The channel characteristics were predominantly adequate to dissipate low flow stream energy but not during flash flood events, which has led to excessive erosion and deposition in spots; however, these events appeared to occur as a natural process consistent with the surrounding geomorphology and landscape. As a result of that conclusion, reach J-88 was determined to be in proper-functioning-condition.

Western Montana Standard #3:
“Water Quality Meets State Standards.”

Finding Standard is met

Rationale

There are no water bodies in Cottonwood Springs allotment identified as being water quality impaired (i.e. Montana 303(d) listed). Overall, observed spring sources were well vegetated and soil movement was not evident. Livestock waste accumulations were not evident in stream corridors.

Western Montana Standard #4
“Air Quality Meets State Air Quality Standards.”

Finding Standard is met

Rationale

Air quality data was not collected within Cottonwood Springs allotment; however, observed vegetation was not dust covered and there was no impairment of visibility.

Western Montana Standard #5

“Provide habitat as necessary, to maintain a viable and diverse population of native plant and animal species, including special status species.”

Finding Standard is met

Rationale

The following indicators were used to assess whether existing habitat conditions are at a condition to support viable and diverse populations of native plant and animal species, including special status species.

- Plants and animals are diverse, vigorous, and reproducing satisfactorily
- Noxious weeds are absent or insignificant in the overall plant community.
- Spatial distribution of species is suitable to ensure reproductive capability and recovery.
- A variety of age classes is present.
- Connectivity of habitat or presence of corridors prevents habitat fragmentation.
- Diversity of species (including plants, animals, insects, and microbes) are represented.
- Plant communities in a variety of successional stages are represented across the landscape.

There were small and large mammals, birds, insects, spiders, grasses, forbs, shrubs, and trees observed at Cottonwood Springs allotment. Overall, they appeared vigorous and healthy. Current and remnant inflorescences/flowers on plants indicated that reproduction was taking place. Houndstongue and musk thistle were common though in riparian reach J-88. Despite the unexpected reduction of bluebunch wheatgrass in certain areas, spatial distribution of species appeared acceptable overall. Perennial shrubs and grasses were present in age classes ranging from young to old. The age of willows and cottonwoods in reach J-88 appeared limited to old and decadent classes. There was connectivity of habitat to prevent fragmentation. Multiple plant, animal, and insect species were found. Plant communities appeared to be in mid- to late-successional stages. Despite some departures from the expected condition, the habitat and diversity standard was still being met.

How This Information Will Be Used

If the information in this Evaluation Report indicates that the allotment meets the Western Montana Standards for Rangeland Health, BLM will issue grazing decision(s) (subject to protest and appeal) to renew or issue associated grazing authorizations as necessary, with the appropriate level of NEPA documentation and public involvement in accordance with CEQ guidance and BLM direction. No additional final determinations are necessary.

For allotments not meeting the Western Montana Standards for Rangeland Health, BLM will use the information in this Evaluation Report along with any other relevant data or information, including input from interested parties, to make a final determination whether or not current grazing management or levels of use are a significant causal factor in not meeting rangeland health standards on the allotment. If current grazing management and/or levels of use appear to be a significant causal factor, BLM will use the NEPA process to document the affected environment and develop alternatives to propose changes to grazing management to facilitate achieving rangeland health standards. These changes or actions will be addressed with an appropriate level of NEPA documentation and public involvement in accordance with CEQ guidance and BLM direction. A Final Determination Document will be prepared in concert with the NEPA analysis and associated decision(s). Pursuant to 43 CFR 4180.2(c), the Authorized Officer shall take appropriate action as soon as practicable, but not later than the start of the next grazing year upon determining that existing grazing management practices or levels of grazing use on public lands are significant factors in failing to achieve the standards. Any grazing decisions, however, are subject to protest and appeal.

If current grazing management or levels of use do not appear to be a significant causal factor, changes or activities in other program areas or activities that appear to be significant causal factors may or may not be undertaken through a NEPA process, dependent on program and office priorities. However, a Final Determination Document will be prepared to document and outline the significant causal factors.

Involvement of Permittees, State Agencies and Interested Publics

The following people/organizations were solicited by mail to see if they had interest in the 2009 Rangeland Health Assessment for Cottonwood Springs allotment: MT Fish, Wildlife, and Parks, Western Watersheds Project, Beaverhead-Deerlodge National Forest, Helena National Forest, MT Department of Natural Resources and Conservation and the allotment grazing permittee. The grazing permittee expressed interest but was only available to participate in a preliminary tour of the allotment with the BLM rangeland management specialist, which included a discussion of past and present grazing practices.

BLM Staff Participants

The following BLM staff participated in the preparation of this report:

Assessment Team Member	Title	Signature	Date
Mark Goertel	Rangeland Management Specialist		
John Sandford	Natural Resources Specialist		
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Review	Title	Signature	Date
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