

RANGELAND HEALTH STANDARDS - ASSESSMENT – Priday Reservoir Allotment #0521

Standards for Rangeland Health and Guidelines for Livestock Grazing Management (BLM, 1997)

Introduction

The Range Reform '94 Record of Decision (BLM, 1995a) recently amended current grazing administration and management practices. The ROD required that region-specific standards and guidelines be developed and approved by the Secretary of the Interior. In the State of Oregon, several Resource Advisory Councils (RACs) were established to develop these regional standards and guidelines. The RAC established for the part of the state covering the Priday Reservoir allotment is the Southeastern Oregon RAC. These standards and guidelines for Oregon and Washington were finalized on August 12, 1997 and include:

Standard 1 - Upland Watershed Function

Upland soils exhibit infiltration and permeability rates, moisture storage, and stability that are appropriate to soil, climate, and landform.

Standard 2 - Riparian/Wetland Watershed Function

Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and landform.

Standard 3 - Ecological Processes

Healthy, productive, and diverse plant and animal populations and communities appropriate to soil, climate, and landform are supported by ecological processes of nutrient cycling, energy flow, and the hydrologic cycle.

Standard 4 - Water Quality

Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.

Standard 5 - Native, T&E, and Locally Important Species

Habitats support healthy, productive, and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soil, climate, and landform.

Standard 1 - Upland Watershed

This standard is being met on the allotment. The indicator normally used to evaluate this standard is the Soil Surface Factor (SSF), but this allotment has no transects from the Ecological Site Inventory (ESI) and therefore no SSF data is available. Attached Table 1 describes the soil types present and the characteristics of those soil types. The erosion hazard in Allotment 521 ranges from none to severe depending on the soil and the topography. The soils with a severe water erosion hazard are found on the steeper soils and rock outcrops. These areas within the allotment are not used by cattle and therefore grazing is not a factor influencing the soil erosion from these steeper slopes. The areas the cattle are using are flat to very gentle slopes and have slight to moderate erosion hazards. The low sodic terrace range site is mapped as 30% playa which can have severe erosion during dry times. However on this allotment the low sodic terrace range site has good shrub cover with greasewood and shadscale with a good understory of salt grass and therefore it doesn't appear wind erosion would be a significant problem.

Another indicator of Upland Watershed condition is plant composition and community structure. The composition of the vegetation within the allotment was not mapped during the ESI inventory but the range sites were determined and these can be seen in attached Table 2. Observations of the allotment found that much of the current vegetation composition does match the vegetation expected for that range site. The low sodic terrace does contain the greasewood and shadscale as expected, and the sodic terrace sites does have more sagebrush with some greasewood and spiny hopsage. The difference between the expected and the actual composition is the presence of saltgrass and the amount of cheatgrasses. In the low sodic terrace, saltgrass dominates the undersory and provides significant ground cover. In the sodic terrace site there is a transition from the greasewood type to the sagebrush dominated sites. In the sagebrush types there is significant cheatgrass present but perennial grasses such Thurber's neddlegrass and bottlebrush squirreltail are still present. Blue grasses (Poa species) are very common. In the shallow loamy and loamy sites there is 5-15 % sagebrush canopy cover with an understory of cheatgrass and a variety of perennial grasses, including remnants of crested wheatgrass and other wheatgrasses seeded in this area in 1970. The sagebrush is still increasing on these sites after being eliminated by chemical spraying prior to the seeding in 1970. The utilization on the perennial grasses in these sites is light to moderate and the current grazing use in the early spring is designed to use the cheatgrass when it is green and palatable. Therefore grazing doesn't appear to be impacting the current vegetation composition and the sites are reverting back to being dominated by Wyoming big sagebrush.

Standard 2 - Riparian/Wetland

Standard II is being met for Riparian/Wetland function. There are 7 acres of palustrine wetlands found in the allotment and they are rated at Proper Functioning Condition. Livestock grazing does not appear to be a factor limiting Riparian/Wetland function.

Standard 3 Ecological Processes

This standard is being met. Following are observations from the interdisciplinary team about the current plant community in the Priday Reservoir Allotment. There are no obvious signs of livestock overuse or damage in areas surveyed. The area is quite dry and is perhaps why few forbs were present during the

botanical evaluation. See Standard 5 for plant species diversity. Grass seed production [in areas not dominated by cheatgrass] is high, and the shrubs and forbs present are all depositing plant litter and contributing to nutrient cycling. Overall the vegetation community present appears healthy. Cheatgrass is the dominant species under low and tall sagebrush, although other scattered forbs are present as well. See Standard 5 for plant diversity noted. Livestock use when cheatgrass are greening up may be helpful in reducing cheatgrass populations.

Junipers are scattered throughout the allotment in the loamy soils and on the steeper slopes.. Introduced plants such as *Agropyron cristatum*, *Bromus tectorum*, *Lepidium perfoliatum*, *Poa bulbosa*, *Sisymbrium altissimum*, and the noxious weed *Taeniatherum caput-medusae* are present. *Taeniatherum caput-medusae* is found mostly at the western road entrance but is also further into the interior of the allotment.

The plant community potential is being hindered by early-germinating *Bromus tectorum* across much of the landscape. This is especially true in the north where stands of *Artemesia tridentata* that did not burn have a thick cheatgrass understory. Processes of vegetation growth and decomposition are occurring, among both native and non-native species, as indicated by in season and previous season plant debris in and on the soil surface. Many of the plants in this allotment are those that were introduced purposefully, those that spread opportunistically, and those emerging as early seral species following wildfire, i.e. crested wheat, cheatgrass, and green rabbitbrush, respectively. Most native grasses are near and beneath rocky escarpments. Native grasses also appear to be producing seed quite normally but the plants are a small minority within the non-native grass population. The introduced grass *Agropyron cristatum* appears healthy and seed production is high. The vegetation along roadsides and in other heavily disturbed areas is dominated by weedy species like *Lepidium perfoliatum*, *Sisymbrium altissimum*, and *Salsola kali*. These species are likely to continue to spread within and along disturbed areas by wind, water, and livestock movement. Although remnant native vegetation stands are present, overall plant species diversity is limited. See Standard 5 for examples of native plant species present in this allotment.

Standard III is being met for animal populations. The allotment is supporting the current and proposed number of mule deer and pronghorn antelope identified by Oregon Department of Fish and Wildlife (ODFW) management plans.

Standard 4 - Water Quality Standards

There are no Oregon listed water quality limited streams in this pasture.

Standard 5 Native, T&E, and Locally Important Species

This standard is being met for native, T&E and locally important wildlife species. The deer and pronghorn populations are healthy and increasing in number within the allotment. Habitat quantity and quality do not appear to be limiting population size or health. Coyote predation is thought to be depressing mule deer recruitment, however, deer and pronghorn populations continue to fluctuate at or slightly below ODFW's Management Objective for the unit.

The allotment also provides habitat for numerous small and nongame birds and mammals common to the Great Basin. There are no known sage grouse leks or identified habitat found within the allotment. The allotment also provides habitat for raptors and some BLM and state sensitive wildlife species and federally listed species. No critical habitat or limitations have been identified for any of these species which include wintering bald eagles, and possibly pygmy rabbits, California bighorn sheep, various sensitive bat species or Peregrine falcons. Livestock grazing does not appear to be limiting wildlife habitat within the allotment.

Special Status Plants: None found, none suspected.

Locally Important Plant Species: None found.

Native Plant Species: *Artemesia tridentata*, *Eriastrum sparsiflorum*, *Microsteris gracilis*, *Oryzopsis hymenoides*, *Sarcobatus vermiculatus*, *Stipa comata*, and *Zigadenus venenosus*. Lichens are present on sagebrush.

Current Management and Recent Management Changes

The allotment has been grazed in the spring (April-June)) for many years and this management will continue. The spring use (April-May) allows the cattle to use the cheatgrass when it green and palatable, therefore reducing cheatgrass seed production. The spring use also encourages use on the crested wheatgrass which protects the native grass and forbs from early grazing and allows them to rest all summer. The crested wheatgrass is still able to regrow during the early summer and fall months.

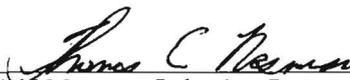
Team Members

Title

Les Boothe	Range Management Specialist
Alan Munhall	Fishery Biologist
Vern Stoffleth	Wildlife Biologist
Lucile Housley	Botanist
Bill Cannon	Archaeologist
Ken Kestner	Supervisory NRS
Robert Hopper	Supervisory RMS
Erin McConnell	Weed Management Specialist

Determination

- Existing grazing management practices or levels of grazing use on the Priday Reservoir Allotment promote achievement of significant progress towards the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.
- Existing grazing management practices or levels of grazing use on the Priday Reservoir Allotment will require modification or change prior to the next grazing season to promote achievement of the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.



Field Manager, Lakeview Resource Area

10/2/03

Date

Table 1. Range Sites and Associated Soil types and the Soil Characteristics in Allotment #521

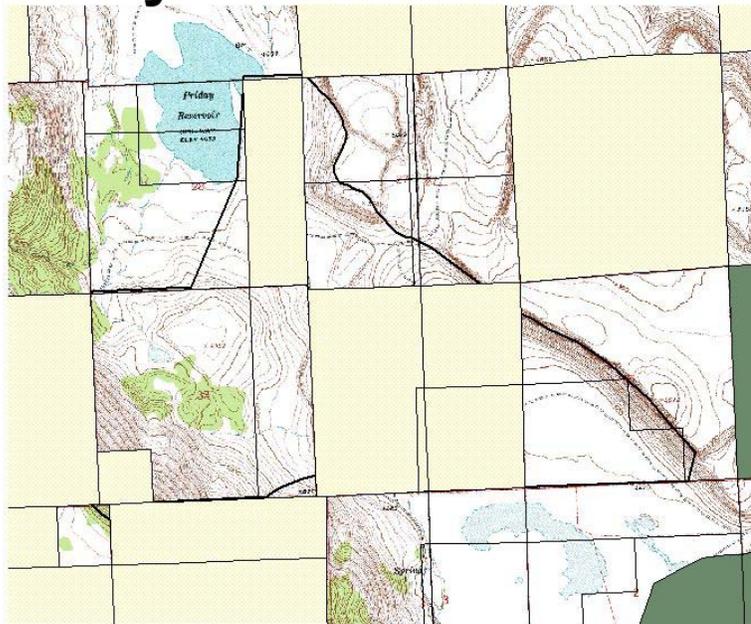
RANGE SITE	Acres (% of Allot.)	SOIL TYPE CHARACTERISTICS			
SOIL TYPE		Surface Texture	Water Erosion Hazard	Wind Erosion Hazard	Soil Depth
Low Sodic Terrace	119 acres (14%)				
55% Icene		Fine Sandy Loam	None or slight	Moderate	Very deep >60"
30% Playa		Silty Clay Loam	N/A	None to Severe depending on time of year	Very deep >60"
Sodic Terrace	41 acres(5%)				
Orvada (50%)		Silt loam	Moderate	Slight	Deep 40-60" to Hardpan
Mesman (35%)		Fine Sandy Loam	Moderate	Slight	Very Deep >60" to Bedrock
Complex					
Loamy	247 acres (28%)				
McConnel very Gravelly sandy loam		very Gravelly sandy loam	Slight or Moderate	Slight	Shallow or moderately deep to sand and gravel 10-25"
South Slope 30-70%	19 acres (2%)				
Rockoutcrop 50% Felcher 35%		Very cobbly clay loam	Severe to very severe	N/A	Moderately deep 20-40"
Shallow Loam	191 acres(22%)				
Old Camp very cobbly loam		Very cobbly loam	Moderate	N/A	Shallow 10-20"
Rockland 30-70%	263 acres (30%)				
Riddleranch 65%		Very gravelly loam	Severe or Very Severe	N/A	Moderately deep 20-40"

Rock outcrop 20%					
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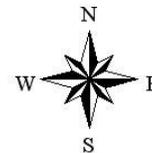
Table 2. RANGE SITES IN PRIDAY RESERVOIR ALLOTMENT 0521

Range Site	Associated Vegetation Type	Acres	Percent of Public Land in Allotment
Low Sodic Terrace	SAVE/ATCO/GRSP/SIHY greasewood/shadscale/spiney hopsage/bottlebrush squirreltail	119	14%
Sodic Terrace	ARTRT/GRSP/SAVE/ORHY basin big sagebrush/spiney hopsage/greasewood/Indian ricegrass	41	5%
South Slopes 8-12	ARTRW/AGSP/STTH Wyoming big sage/ bluebunch wheatgrass /Thurber's needlegrass	19	2%
Shallow Loam 8-10	ARTRW/STTH/ORHY/AGSP Wyoming big sage/Thurber's needlegrass/Indian rice grass/bluebunch wheatgrass	191	22%
Loamy 8-10	ARTRW/STTH/ORHY/AGSP Wyoming big sage/Thurber's needlegrass/Indian rice grass/bluebunch wheatgrass Wyoming Sagebrush/Grass	247	28%
Rockland/ Rubble		263	30%
TOTAL		880	

Priday Reservoir Allotment #521



Land Status
■ BLM
■ Private
■ State
□ Priday Allotment Boundary



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