

**RANGELAND HEALTH STANDARDS - ASSESSMENT –BURRO SPRINGS ALLOTMENT
#0213**

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 Rabbit Basin 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 indicators used to evaluate this standard are Soil Surface Factor (SSF), which documents accelerated erosion; and plant community composition, which indicates root occupancy of the soil profile.

Soil Surface Factor (SSF) is an indicator of accelerated erosion and is a method of documenting observations regarding erosion. A copy of the form used to document SSF is attached (Appendix A, "Determination of Erosion Condition Class"). With 58% of the allotment being in the Slight and no acres in the moderate or higher classes there is little or no active soil erosion or evidence of past erosion on these areas.

The average utilization on the native species such as Sandberg’s bluegrass was 22%, bottlebrush squirreltail was 25% and basin wildrye was 27%. These utilization measurements were taken in 10 of the last 15 years. These low utilization levels indicate that ample standing crop was being left behind to protect the soil from erosion. The authorized use is 279 AUMS but the average actual use has been 154 AUMS and this low actual use is the reason for the low utilization levels.

| | Erosion Condition Classes* | | | | |
|----------------------|-----------------------------------|----------|----------|-------------------|-----------|
| | Slight | Moderate | Critical | Rockland or Playa | Unknown** |
| Acres | 4,343 | 0 | 0 | 1,176 | 1,928 |
| Percent of Allotment | 58% | 0 | 0 | 16% | 26% |

** The erosion condition classes are based on numeric scoring system which considers soil movement, surface litter, surface rock, pedestalling, flow patterns, rills and gullies. Appendix A is an example of the scoring sheet that is used.*

*** Every Site Writeup Area (SWA) has a 10-15% portion of that area that is considered inclusions of different vegetation communities. The transect data for the SWA may not apply to these inclusion, therefore the acres in these inclusions are considered unknown. The unknown also includes acres of types for which the SWA transect was run in a different allotment and the data from that transect may not apply to this allotment.*

Another indicator of Upland Watershed condition is plant composition and community structure. The composition of the vegetation within the allotment can be seen in attached Table 1. There is no single dominant vegetation type in the allotment, with shrubs/grasses (37% of allotment) and big sagebrush/grass (21% of the allotment) being the most common types. Within the shrub/grass type there are silver sagebrush/cheatgrass (21%), greasewood/saltgrass (11%) and silver sagebrush/bottlebrush squirreltail (5%). Within the big sagebrush/grass type there is big sagebrush/bluebunch (10%) and big sagebrush/cheatgrass (11%). This indicates that about half of the vegetation communities are stable with a perennial grass dominating the understory and the other half has cheatgrass dominating the understory.

The two trend photos for the allotment, taken in the big sagebrush/cheatgrass type show perennial grasses present and there is no apparent trend except in drier years when the grass plants are shorter and less robust. The current spring grazing system takes advantage of the green cheatgrass when it is palatable and before it has a chance to go to seed. From observation the two native perennial grasses, salt grass and basin wildrye, are benefiting from this spring grazing as they receive very little use. The plant community and structure in this allotment appears stable and may be improving because of low utilization levels and a grazing system that utilizes the green cheatgrass.

The Ecological Site Inventory (ESI) compares the current plant composition to a defined Potential Natural Plant Community for the identified soil type and precipitation zone. Using the 1987 ESI, the percent of the allotment in each seral stage is summarized in the table below.

Ecological Condition of Allotment #0213, Burro Springs as determined by the Ecological Site Inventory in 1987.

| | Ecological Condition Classes | | | | | |
|-------------------------------------|-------------------------------------|-------|-------|--------|-------------------|----------|
| | Early | Mid | Late | Climax | Rockland or Playa | Unknown* |
| Acres | 0 | 1,655 | 2,351 | 337 | 1,176 | 1,928 |
| Percent of Vegetation (7,447 acres) | 0 | 22% | 31% | 5% | 16% | 26% |

** Every Site Writeup Area (SWA) has a 10-15% portion of that area that is considered inclusions of different vegetation communities. The transect data for the SWA may not apply to these inclusions, therefore the acres in these inclusions are considered unknown. The unknown also includes acres of types for which the SWA transect was run in a different allotment and the data from that transect may not apply to this allotment.*

About 22% of the allotment is in the mid seral stage and this includes some of the greasewood /saltgrass type and most of the big sagebrush/cheatgrass type. The big sagebrush/cheatgrass type is dominated by cheatgrass in the understory, but the mid seral condition rating indicates there is significant perennial grass understory. These types appear stable and are not impacted significantly by the current grazing management.

The vegetation types in the late seral stage (31%) are big sagebrush/bluebunch wheatgrass, shadscale /cheatgrass and a small area (17 acres) of big sagebrush/cheatgrass. The big sagebrush/bluebunch wheatgrass type is found on the slopes of coleman rim and is a desirable native community that is not impacted significantly by grazing but is being invaded by junipers. The vegetation community in the climax stage is shadcale/bottlebrush squirreltail and this is very stable community which is not impacted much at all by the current grazing management.

Standard 2 - Riparian/Wetland
The Standard is not being met at Burro Spring.

There are four acres of palustrine wetlands and 197 acres of lacustrine wetlands in the allotment. Lentic Properly Functioning Condition assessment (PFC) was performed and all 201 acres were in PFC. There are no major intermittent or perennial streams. Ephemeral drainages and a number of springs are present.

Burro spring is the only named spring in the allotment. The spring is developed, and there is an enclosure around the spring source. Livestock grazing is contributing to the standard not being met at Burro Spring. Heavy livestock use has contributed to a loss of riparian vegetation around the spring, reducing the size of the riparian area from its potential. This prevents effective capture, storage, and flow of water from the spring. Attaining proper riparian-wetland function may require installation of additional fencing in the riparian area and an overflow pipe. Additional fencing would exclude livestock from a larger portion of the riparian area and allow riparian vegetation to recover. Installing a pipe for overflow would transport excess water from the high use areas that surround the troughs. This would help reduce postholes and hummocks from the riparian area which would also contribute to recovery of the site.

Standard 3 Ecological Processes

This standard is being met. Following are observations from the interdisciplinary team. The vegetation in Allotment #0213 appears healthy and productive. Livestock does not appear to be having a negative affect

on the vegetation in the areas surveyed. During this late winter evaluation, the processes of plant growth and decomposition were normal.

The Observed Apparent Trend (OAT) for the vegetation communities on public land was determined during the ESI (1987) and is seen in the Table below. In 1987 the OAT recorded that 10% of the allotment was in upward condition and this is the big sagebrush/bluebunch wheatgrass type which occurs in the higher elevations and has always received lighter utilization (<30%) than the lower elevation types. With even lower stocking rates now than before 1987, assumption is that the upward trend in the bluebunch wheatgrass sites is continuing except for an increase in juniper which is the result of fire suppression. The remaining vegetation types for which OAT was determined have a static trend.

| | Observed Apparent Trend* | | | Rockland or Playa | Unknown** |
|----------------------|---------------------------------|--------|----------|-------------------|-----------|
| | Upward | Static | Downward | | |
| Acres | 736 | 3,607 | 0 | 1,176 | 1,928 |
| Percent of Allotment | 10% | 48% | 0 | 16% | 26% |

* *The Observed Apparent Trend (OAT) is a numerical rating which considers vigor, seedlings, surface litter, pedestals and gullies to estimate the trend of a particular site and SWA.. An example of how the rating is determined can be seen in Appendix B.*

** *Every Site Writeup Area (SWA) has a 10-15% portion of that area that is considered inclusions of different vegetation communities. The transect data for the SWA may not apply to these inclusion, therefore the acres in these inclusions are considered unknown. The unknown also includes acres of types for which the SWA transect was run in a different allotment and the data from that transect may not apply to this allotment.*

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 species.

The deer and pronghorn populations are healthy and stable within the allotment. Habitat quantity and quality do not appear to be limiting population size or health. Wildlife populations fluctuate at or slightly below ODFW's Management Objective for the unit.

The allotment also provide habitat for numerous small and nongame birds and mammals common to the Great Basin, as well as, very limited sage grouse and California bighorn sheep habitat (both Bureau Sensitive Species). There are no known sage grouse leks found within the allotment, however, sage grouse have been seen using the allotment at different times of the year. The allotment also provides habitat for raptors and other sensitive species, as well as, some 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, various sensitive bat species or Peregrine falcons. Livestock grazing does not appear to be limiting wildlife habitat within the allotment.

Introduced plant species noted in this allotment included *Bromus tectorum*, *Cirsium vulgare*, *Halogeton glomeratus*, and *Ranunculus testiculatus*.

Native Plant Species: *Artemisia spinosa*, *Artemisia tridentata*, *Atriplex confertifolia*, *Atriplex spinosa*, *Carex* sp., *Distichlis spicata* var. *stricta*, *Elymus cinereus*, *Ericameria nauseosa*, *Heliotropium curassavicum* var. *obovatum*, *Juniperus occidentalis*, *Lygodesmia spinosa*, *Salix* sp., *Rumex crispus*, *Sarcobatus vermiculatus*, *Symphoricarpos longiflorus* and *Xanthium strumarium*.

Special Status Plants: *Symphoricarpos longiflorus* and *Heliotropium curassavicum* var. *obovatum* are documented in this allotment.

SYLO is around Coleman Rim at T40S, R25E, S17 SE ¼. This sensitive long-flowered snowberry is a shrub growing in rocky areas. It is currently on the BLM Assessment (ASM) list and on the ONHP List 2. It is found along much of the length of Coleman Rim in rocky areas where livestock grazing does not occur. SYLO is present at several other locations in the Resource Area.

HECUO2, salt heliotrope, is a sensitive forb on the Bureau Tracking List (TRA) and is on the ONHP List 3. It prefers drying lake edges and alkaline flats. In Allotment 213 it is documented at Spanish Lake, T40S, R25E, S21 NW ¼. HECUO2 is also present at several other locations in the Resource Area.

Locally Important Plant Species: No specific cultural plants were noted on this visit.

Noxious weeds are known to occur in the Allotment. Halogeton is present in small patches along main roads in the north end of the allotment and on the access road to the proposed seeding area. Bull thistle and common cocklebur are present at the Burro spring development. All weed sites are manageable at the present time and are undergoing treatment

Current Management and Recent Management Changes

The allotment has been grazed in the early spring for the past 7 years averaging 147 AUMS out of an authorized number of 279 AUMS. The spring grazing is being used because it reduces the utilization levels on Burro Springs Allotment with fewer AUMS and utilizes the cheatgrass, while allowing for summer rest which will increase perennial grass production over time. This plan works well in conjunction with other allotments the permittee has and allows spring rest on those allotments. This current management will be adjusted if the scheduled juniper control projects are implemented and it is determined rest periods are necessary.

Team Members

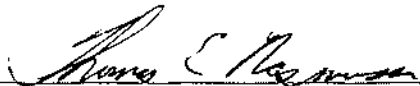
Title

| | |
|-------------------|-----------------------------|
| Les Boothe | Range Management Specialist |
| Alan Munhall | Fishery Biologist |
| Vern Stoffeth | Wildlife Biologist |
| Heather Partipilo | Botanist |
| Bill Cannon | Archaeologist |
| Ken Kestner | Supervisory NRS |
| Robert Hopper | Supervisory RMS |
| Erin McConnell | Weed Management Specialist |
| Elizabeth Berger | Hydrologist |

Determination

- Existing grazing management practices or levels of grazing use on the Burro Springs 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 Burro Springs 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

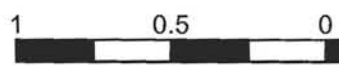
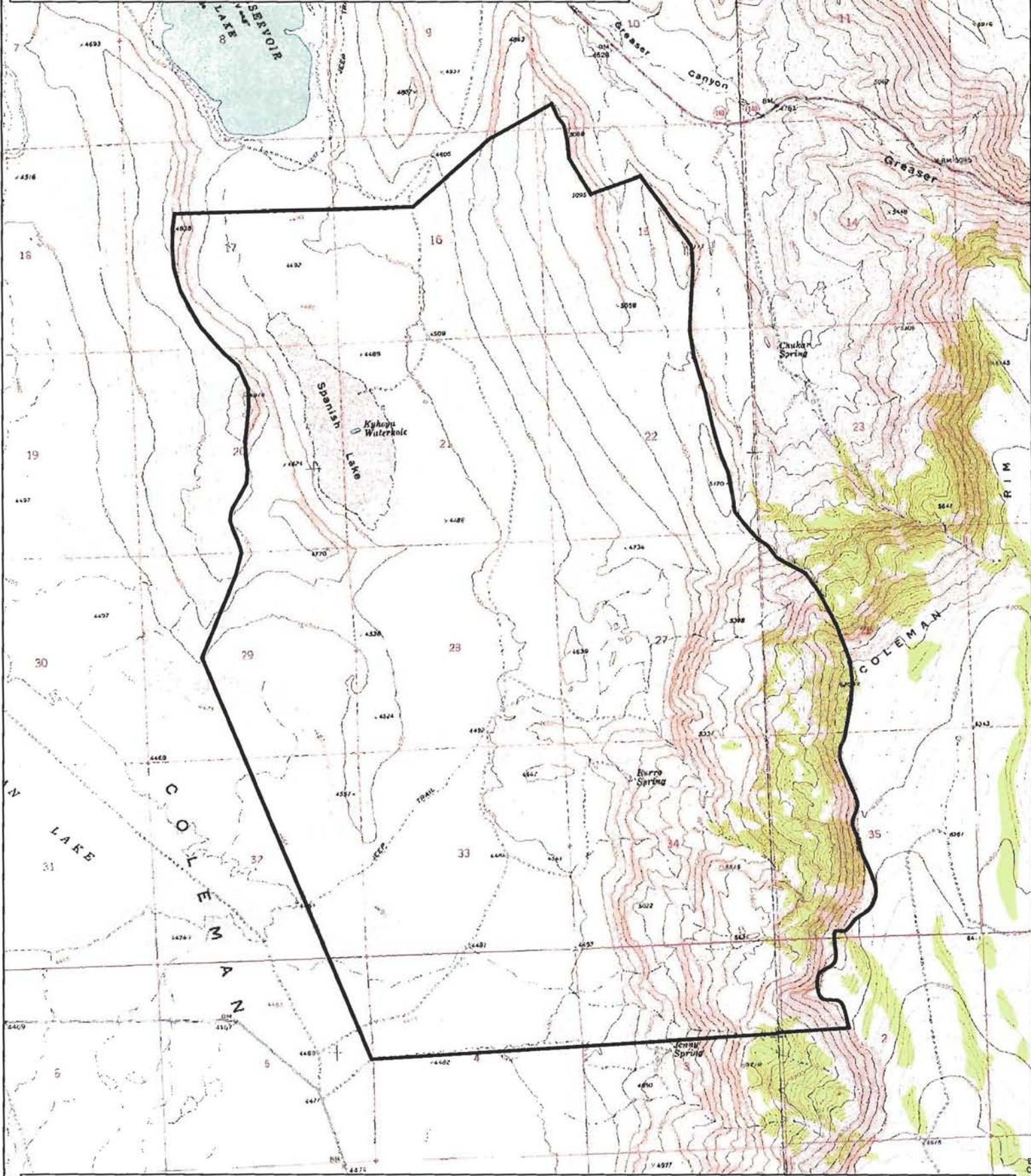


Date

VEGETATION TYPES IN ALLOTMENT 0213 – BURRO SPRINGS

| Vegetation Type | Acres | Percent of Allotment |
|--|--------------|-----------------------------|
| Shrubs/Grasses | | |
| ATCO-SIHY Shadscale/bottlebrush squirreltail | 337 | 5% |
| ATCO-BRTE Shadscale/Cheatgrass | 1,597 | 21% |
| SAVE-DISP Greasewood/saltgrass | 816 | 11% |
| Shrub/Grass TOTAL | 2,750 | 37% |
| Low sagebrush/Grass | | |
| ARAR-POSE Low sagebrush/Sandberg bluegrass | 1 | T |
| Big Sage/Grass | | |
| ARTRT-AGSP big sagebrush/blue bunch wheatgrass | 736 | 10% |
| ARTR-BRTE big sagebrush/cheatgrass | 856 | 11% |
| Big Sage/Grass TOTAL | 1,592 | 21% |
| Wyoming Big Sage/Grass | | |
| ARTRW-BRTE Wyoming big sagebrush/cheatgrass | 91 | 1% |
| TOTAL VEGETATION | 4,434 | 60% |
| Playa | 655 | 9% |
| Rockland/ Rubble | 521 | 7% |
| Inclusions* | 1,219 | 16% |
| Incomplete | 618 | 8% |
| ALLOTMENT TOTAL | 7,447 | |

Burro Springs Allotment #213



1 Miles



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