

L 12-15-93

Buffalo Hills File

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Winnemucca District Office
705 East Fourth Street
Winnemucca, Nevada 89445

In reply refer to:

(NV-026.14)

December 15, 1993

Memorandum

To: Sonoma-Gerlach Area Manager
From: Leigh Redick, Range Conservationist *LR*
Subject: 1993 Buffalo Hills Grazing Season Review

This was the first year using the terms and conditions set forth in the 1993 Buffalo Hills Multiple Use Decision. The Decision was appealed, but it had been sent Full Force and Effect, so we were still able to follow the management actions from it. See the attached chronology of Activities and Events that took place on the allotment; including horse gathers, inspections, and tours.

We were under an Interim Management Plan due to the number of wild horses remaining in the Calico and Granite Pastures. Under this plan livestock grazed the Buffalo Hills pasture early instead of the Calico pasture. The Dolly Varden pasture was grazed from July 15 to October 15 according to the normal schedule.

Monitoring

Use Pattern Mapping

Buffalo Hills Pasture See Attached map.

Use Pattern Mapping was conducted in this pasture from July 15 to July 23. I did all of the mapping from a four-wheel drive vehicle and on foot, while camping in the pasture. Weather was mostly warm and sunny with scattered showers occurring one day. 57,697 acres were mapped using six utilization classes. 21,477 acres of no use (37.2%), 16,735 acres of slight (29%), 8537 acres of light (14.8%), 10,463 acres of moderate (18.13%), and 485 acres (.84%) of heavy use were mapped.

Overall utilization in the pasture fell into the no apparent use, slight, and light categories. Key upland species were STH2 and SIHY. Other key upland species that were measured when available were: PUTR2, ELCI2, AGSP, STWE, and BAHO. When it was available ELCI2 usually had the heaviest use (moderate to heavy), but it was not abundant enough to use in most transects.

The southern end of the pasture had mostly no apparent use. This may be due to lack of water and the scarcity of perennial grasses. A lot of old horse sign was noted, but very little fresh sign from either cattle or horses. One stretch along Willow Basin had heavy use on the grasses and sedges from both horses and cattle. Jacksons had asked about developing the spring, but it is on private land (Sec. 25).

Use on STH2 ranged from 0 to 31.3%. The heaviest use occurred at the north end of the pasture near Highway 447, probably due to the relative abundance of water and productivity of the site. AGSP also occurred in this area and had 31% use on it. There is an exclosure in this area that provides a good comparison.

Use on SIHY ranged from none to 42%. The heaviest use on it occurred in the northwest portion of the pasture. Perennial grasses are very scarce in this area. Vegetation is mostly BRTE, SAKA, and an unknown mustard. It looks like there was a fire here a long time ago. Sagebrush was returning, but most of the shrubs are rabbitbrush. The abundance of BRTE, SAKA, and mustard may have protected the perennial grasses and prevented their heavier use. Livestock were also using BRTE, SAKA, and mustard. STH2 was found in the area but it was also very scarce. I would estimate that the benches in this area are in an early seral stage. We will have to wait for the ESI data to be completed to know for sure.

Four transects were run on PUTR2 with utilization levels running from 0 to 4%. Another visual observation showed slight use. Nothing seemed to be using bitterbrush in most areas, although when riding with the Jacksons during the mid-season move livestock were observed eating PUTR2 as they were pushed.

STWE occurred mostly in the rockier, less productive areas of Jones and Boulder Flats. Use on it ranged from 1 to 18%. When AGSP occurred, utilization ranged from 0 to 31%. The higher level occurred in the north end of the pasture. BAHO had 10% use in both Boulder and Jones Flats. Slight use was also found on BAHO in Little Sawmill Canyon and north of Twin Springs Canyon. Pronghorn antelope were probably making most of the use on BAHO.

Riparian areas monitored were: Frog Creek, N. Buffalo Crk, Willow Basin, Granite Canyon, and the meadows at the head of Twin Springs Canyon. A transect was run on the North Fork of Buffalo Creek which showed 26.2% use on Salix spp. and 14.3% on grasses and grasslikes (Juncus spp. and Carex spp.). Salix exigua seemed to have higher use than other Salix species. The grasses and grasslike species had about four inches of stubble height. Use in Willow Basin occurred near a spring and was mostly trailing and staging damage; utilization occurred directly along the green line.

Heavy use occurred on the meadows above Twin Springs Canyon. Use was on Juncus spp., Carex spp., and Poa spp. There was still some water running from the springs along these meadows. Wild horses and livestock both were using the meadows, but livestock were responsible for the bank damage along the drainage. These meadows were almost entirely on private land.

There was also a stretch of heavy use along Frog Creek. Species being utilized

were mostly Juncus, Carex, and Poa. Willows are rare along this section of the creek. This could be because willows are not the potential dominant on this site or because of past livestock use. I think the area is more of a Carex/Juncus dominated site.

Dolly Varden Pasture See Attached map.

Use pattern mapping was conducted in the Dolly Varden pasture from October 26 to November 4. Mapping was done from a four wheel drive vehicle, on horseback, and on foot. Weather was clear and cold with no precipitation occurring while in the field. 43,084 acres were mapped using six utilization classes. 17,070 acres (39.6%) of no apparent use, 5791 acres (13.4%), of slight, 15,396 acres (35.7%) of light, 4570 acres (10.6%) of moderate, 215 acres (.5%) of heavy, and 42 acres (.1%) of severe use were mapped. Dale Owen, Rich Adams, and Grover Jackson accompanied me on different days. On November 2 a tour was conducted with NDOW and the permittee. Key species measured on upland sites were: PUTR2, STH2, AGSP, FEID, SIHY, and STWE.

The flats on the east side of the pasture from Cottonwood Creek to just north of Negro Creek received no apparent use. The vegetation consisted mainly of: ARTRW, ARSP, SAVEB, SIHY, AND TESP.

Slight use occurred on the north end of the pasture from the North Fork of Negro Creek to Potato Patch Spring including the Mahogany Troughs key area. Key species in this section were FEID, STH2, and AGSP. PUTR2 had very slight use.

Light use resulted on the west side of the pasture from White Rock Spring south to Chicken Springs, including the Potato Patch and Scraper Spring key areas. Species monitored in this zone were PUTR2, STH2, AGSP, SIHY, FEID, and CELE3. This use pattern occurred over a variety of ecological sites. The west side may have received a higher level of use by cattle this year because the livestock were pushed from the Buffalo Hills pasture up Crutcher Canyon before being scattered. When using this pasture they are normally pushed from the Calico pasture to the eastern portion of the Dolly Varden pasture.

Moderate use occurred in Rocky Basin, around Wagon Tire Mountain, and the area just north of Right Hand Canyon. Key species observed in these areas were STH2, SIHY, AGSP, and ELCI2. Utilization on Wagon Tire Mtn. and the area north of Right Hand Canyon can be attributed mostly to horses based on sightings and the amount of horse sign. Rocky Basin was a combination of both horses and cows.

Riparian areas mapped were: Wagon Tire Creek, Red Mountain Creek, and Negro Creek. Heavy use occurred along the upper reaches of Wagon Tire Crk. Transect #4 was conducted on Poa spp. and Juncus spp., which were the only species recognizable. The streambank does not have a good component of rock to help protect it so it is especially sensitive to overuse. Soils are probably a silt loam. The banks along this section of the stream have been degraded and the channel contains a high sediment load. The potential community is probably not willow dominated; it is more likely a Carex/Juncus dominated site. Two reservoirs (which are on private land) are located on this section of the creek

~~to complicate the situation. Most of the use is occurring by wild horses. This observation is based on pre-livestock checks which revealed heavy use before cattle came on, census/distribution data, and on the ground sightings. Jacksons had been notified of the situation and rode to keep livestock out of this area. Other areas of heavy use occurred at Supply Camp and Mud Springs.~~

The lower reaches of Wagon Tire Creek had slight use on willows and Juncus spp. This part of the creek is more protected by the terrain and willows, which accounts for the lighter use. Juncus ensifolius (JUEN) was the main species being used. It does not occur continuously along the stream, but grows in pockets.

South of Heward Reservoir is a fork of Wagon Tire that received severe use. Use again occurred on Juncus, Poa, and Salix mostly by cattle. Horses also have an impact on this area as evidenced by the trails through the drainage. The Cottonwood drift fence runs through the area so animals that run up against the fence follow it right into the drainage.

Red Mountain Creek (below the enclosure) had light use on grasses and grasslikes and slight use on willows. JUEN again was the main species utilized, similar to the lower reaches of Wagon Tire Creek. Scirpus spp (bulrush) also had light use where it occurred. This reach of Red Mtn. Crk was lined with willows from the enclosure down to where the cottonwood trees start to come in. Willows are still present through here, but they are not continuous. The streambank has a good rock component to help protect it.

The stretch of Negro Creek that was mapped had light use on Scirpus and Juncus spp. collectively and slight use on willows and grasses/sedges. Cattle didn't seem to have spent much time in this drainage. Most use occurred on the benches adjacent to the stream on the ELCI2 and mustard. ELCI2 has made a considerable come back on some stretches, but has not spread all along these benches yet. White Rock Spring showed a great difference in utilization levels from last year. I think this is a result of the winter 1993 horse gathers. Last year, with only horses in the pasture, use on the ELCI2 at the spring was heavy. This year, with both horses and livestock in the pasture, ELCI2 had only slight use.

Other Monitoring Identified in the 1993 Evaluation

Ecological site inventory data is still being collected. Buffalo Hills pasture was completed and the remaining pastures (Dolly Varden, Granite, Calico) should be completed by the end of next year. Mike Zielinski and Bob Allen are going to inventory the riparian areas the second week in July next year; I will try to accompany them.

Use pattern maps were completed for the Buffalo Hills and Dolly Varden pastures after livestock were removed. Use pattern mapping will be scheduled to be conducted in these pastures before the start of the 1994 growing season to determine if the 60% (upland) and 40% (riparian) utilization limits are being met. Use pattern mapping was not conducted in the Granite and Calico pastures. These pastures will be monitored around July 15 next summer to see if we are meeting the 20% limit set by the Multiple Use Decision.

~~Stream surveys were conducted on Wagon Tire and Cottonwood Creeks by NDOW this summer. Final reports have not yet been received. Arn and I should get together to determine a schedule for future surveys.~~

Sage grouse strutting grounds and brooding habitat were not identified, although Arn has talked to NDOW about working together to get this done.

Canopy cover transects for sage grouse were not established this year, as stated in the evaluation, and will need to be established in 1994.

A wild horse census was conducted in the Granite, Calico, and Buffalo Hills HMAs this summer.

Monitoring required for 1994

Use pattern mapping as identified in the Buffalo Hills MUD.

Establish key areas in streambank riparian areas, for key forage transect monitoring and photo trends.

Establish at least one mahogany savanna monitoring site in each pasture in which mahogany occurs for age class and vigor.

Establish aspen woodland monitoring sites for age class, vigor, and density in each pasture in which aspen occurs.

Key management areas are to be established in each pasture for both upland and wetland riparian habitat by 1995.

Wild horse distribution flights.

Implemented Management Actions

Improve Livestock Distribution

Rich, Arn, and I worked with the Jacksons several times before and during the season to discuss distribution and grazing strategies. The strategy for the Buffalo Hills pasture is to push the cows along the Smoke Creek Desert to the south end of the pasture, scatter them in the numerous side canyons, and let them drift north. This seemed to work well because when inspecting this pasture at various times we never saw a lot of cattle keged up in any area. Jacksons also had a hard time finding cows when they made the mid-season move because they were so well scattered. This may have been primarily due to the relative abundance of water and forage this year. Some of the slight and light use zones in the north end of the Dolly Varden pasture were mentioned as areas to salt to draw livestock away from the heavy use zones near Wagon Tire Creek. I also rode with Jacksons during the midseason move and we talked about scattering the herd when it reached Crutcher Canyon. Jacksons did a good job of keeping cattle on the west side of the pasture so they wouldn't concentrate on Red Mountain, Wagon Tire and Negro Creeks.

The 30% use limit was exceeded on Wagon Tire Creek and the south fork of Wagon

~~Tire. These areas were inspected by Grover, Arn, and I on Sept. 7 and a letter was sent informing Jacksons that they would have to remove cows from these areas. The area around Red Mountain and north of Red Mountain were identified as places to push the cows. Grover and Andrea reported that it was extremely difficult to keep cows out of the south fork of Wagon Tire; they would prefer a fence for this section.~~

Interim Management Plan

The IMP was implemented this year as described in the evaluation. Buffalo Hills and Dolly Varden were used by livestock. We have discussed going into the grazing system next year if horses are removed from the Calico pasture and it looks ready in the spring.

Projects

Projects identified in the evaluation that need to be started on are reconstruction, to pronghorn antelope standards, of the Granite Mtn. drift fence, the Coyote fence from Frog Crk to Crutcher Canyon, and the C-2-N fence at Corner Spring.

Rich, Tom, Arn, and I looked at the head of Donnelly Crk to determine if we would need an enclosure to protect sage grouse habitat. We decided that we needed one and Tom and Rich tentatively laid out an area to be fenced. I will get started on the project file for this project this winter.

Other projects identified for the allotment were: an enclosure on Wagon Tire Crk (both the south fork and main fork), developing Chicken and High Up Springs in the Dolly Varden pasture, Willow Basin Spring in the Buffalo Hills pasture, and a holding corral on Cottonwood Crk for when the Jacksons drive cows over the mountain and repairs on an enclosure in the Buffalo Hills pasture. As time allows I will work on project files for these projects, with Wagon Tire being the priority.

Tours

On November 2 we held a tour for the groups that had appealed the Buffalo Hills multiple use decision (Sierra Club, WHOA, Commission for the Pres. of Wild Horses, and NDOW). NDOW was the only organization to attend. Those present on the tour were:

Greg Tanner- NDOW	Roy Leach- NDOW
Andrea Jackson- permittee	Grover Jackson- permittee
Rich Adams- BLM	Arn Berglund- BLM
Leigh Redick- BLM	Tom Seley- BLM

While on the tour we looked at the use on bitterbrush from Crutcher Canyon up to Fox Mountain. We ran a utilization transect in Crutcher Canyon and determined use on bitterbrush to be light (36%). A transect at the same place on August 23 showed use on bitterbrush to be 28%. Visual inspections of bitterbrush by

the group at various other locations did not reveal any higher use of bitterbrush or stands that had been adversely affected by livestock use of the area during the prescribed period of use (7/15 to 10/15). We also drove down Negro Creek and to Wagon Tire Creek. All of us agreed that we would need to correct the situation on both the main fork and the south fork of Wagon Tire Creek. Everyone also thought that the use on Negro Creek was at an acceptable level.

Conclusions and Recommendations

I feel that, even with the excess horse numbers, this system proved effective for the 1993 grazing season. The issue of greatest concern proved to be the use on Wagon Tire Creek. Although the Multiple Use Decision specifies that riparian areas will not be fenced unless AML is achieved and damage is still continuing, I am going to start on project files for fencing these areas. The south fork may be an easy problem to solve. We may be able to use the Granite Mountain drift fence as one side of the enclosure and fence the Dolly Varden portion. I think Jacksons would be willing to fence this area if we provided materials. Fencing would also be more effective, in this case, than herding since this is a natural drift area for livestock.

A couple of options have been discussed for the main fork of Wagon Tire Creek. One was to try to reduce the concentration of wild horses in the vicinity (since most of the problem is horse related) and let the grazing system and management actions work. Fencing was the other option, with different ideas, from total exclusion to a riparian pasture, being examined. Although a concern, Red Mountain and Negro Creeks were grazed at acceptable levels this year.

We were especially conscious of bitterbrush utilization in the Dolly Varden pasture this year as it was brought up as an appeal point. The concern was that the prescribed period of use would adversely affect bitterbrush through higher use levels. Utilization levels on bitterbrush ranged from no apparent use to 36% use, with most levels at the lower end of this range. With these utilization levels, I maintain that bitterbrush is not adversely affected by the prescribed period of use.

Based on observations and monitoring data collected, I feel that the prescribed system and season of use will benefit wildlife habitat, riparian areas, and upland vegetation. If horses can be brought to AML, I think the number and severity of any "sore" spots could be reduced or eliminated.

Precipitation and temperature data was not yet available for this grazing season. It will be added when it becomes available.