

January 13, 2023

Brad Schultz and Santa Rosa Grazing Permittees
[REDACTED]
[REDACTED]

To: Mr. Boyd Hatch, District Ranger, Santa Rosa Ranger District,
From: Permittees, Santa Rosa Ranger District
Subject: Comments, Santa Rosa Rangeland Management Project's Environmental Assessment and Draft Decision

Dear Mr. Hatch:

As permittees on the Santa Rosa Ranger District (SRRD) we appreciate the opportunity to review and comment upon the Santa Rosa Rangeland Management Project's Environmental Assessment and Draft Decision.

First, we find this document to reflect much better on the long-term positive changes that have occurred on the SRRD since the advent of the District over 100 years ago. Second, we appreciate the Forest Service recognizing that some, and perhaps most adverse situations (conditions) are beyond the control of proper livestock grazing and management and that we should not be held accountable for those situations. Third, we recognize that no planning document is perfect and that trade-offs occur.

Our comments below are intended to improve the grazing management program going forward. They reflect our interpretation of the language in the NEPA document and how it may be used against us (and the Forest) by third parties, in ways neither the Forest did not intend, and probably would not appreciate.

Page 3. Purpose and Need. *"Rangeland condition monitoring conducted across the Santa Rosa Ranger District shows that general overall trend is moving towards desired condition within most of the project area. Areas of concern that are not at desired condition or static or even trending downward away from the desired condition (USDA; 2020) have also been identified. To address these areas of concern and to continue the upward trend towards the desired condition, where possible, there is a need to decide how best to manage livestock grazing activities to achieve healthy, productive, and sustainable rangelands."*

The overall upward trend stated in the purpose and need, combined with language in the Vegetation and Range Specialist Report for each allotment, that concerns and issues occur on areas smaller than the District, entire allotments and probably even most pastures dictates that proposed solutions to these issues and concerns be scaled to the specific areas in need, not larger administrative units that encompass these areas or points of concern.

Page 5. Season of Use. *"The proposed action includes a flexible schedule that would allow grazing between the months of March and November (historic grazing timeframes were from April to October). Placing the grazing season on a flexible schedule would allow the authorized*

head months to be used anytime during the identified months provided range readiness standards are met and yearly environmental conditions are amenable.”

We appreciate and agree with the basic concept of increasing flexibility for the start and end dates of the grazing period. This greatly enhances the potential to use livestock as a vegetation management tool while simultaneously obtaining forage as part of the annual production cycle. From the perspective of livestock grazing, range readiness occurs anytime forage is available for consumption. That may be residual forage from the previous growing season, biomass produced during the current growing season, or some combination thereof. Livestock and grazing management are likely to occur very differently under each of these potential conditions, but as long as the forage is accessible the range is ready for grazing at some level. Full numbers may be possible or only some fraction thereof. Also, it will depend upon the management goals and objectives the Forest and the permittee wish to achieve. How best for it to occur will always be a question to address.

Page 7. First Sentence: *“Rest-rotation grazing systems allow at least one pasture per year to have one full growing season without any use by livestock.”* This statement actually describes a deferred rotation grazing system. Deferred grazing systems have no grazing during any part of the growing season, with the end of the growing season defined as the conclusion of seed production. Growth begins with emergence of the first green leaf. In a rest rotation grazing system, there would be no grazing during not only the entire growing season but the entire potential grazing period that calendar year. As defined in the EA, the grazing period is the March-November period. This needs to be clarified so that all parties always know the specifics of the terminology used.

Page 8. 4-inch Stubble Height – last sentence: *“An occasional annual measurement below the 4-inch standard is not a management concern (Roper; 2020).”* We recognize that Forest has selected the Alternative Action, which uses utilization and not a 4-inch stubble height (Page 14 and 56). The aforementioned statement for stubble height – a type of utilization measurement – acknowledges that utilization measurements are management targets, not strict standards, and that occasional/periodic use greater than the target does not adversely affect rangeland plants. A similar statement about forage utilization – the percent of the current years annual growth consumed or damaged by grazing animals – should also accompany the selected alternative. The following information provides ample evidence, across numerous rangeland ecosystems that utilization rates well above 45% during dormant periods for one, and sometimes two or more consecutive years, had no long-lasting effects toward the vegetation.

To obtain heavy use of annual grasses during dormant season grazing, consumption of the residual perennial herbaceous component often may exceed 50% (Schmelzer et al 2014): the utilization standard for many grazing allotments. The important management question is, does utilization greater than 50% during the dormant season adversely affect the desired perennial herbaceous component? If not, are one-size fits all utilization standards appropriate when intense dormant season grazing (>60% utilization) provides benefits for the landscape?

Daubenmire (1940) observed that “grazing *Agropyron* (bluebunch wheatgrass - *Pseudoroegneria spicata* (Pursh) A. Löve) bunches to the ground during the summer – presumably post seed production - and fall appears to have only slight detrimental influence upon these plants”.

Clipping and grazing research across numerous species for both cool and warm season grasses support this observation. For bluebunch wheatgrass, intense fall clippings, ranging from ground level to a 5-cm stubble height, for 2 to 6 consecutive years, had little or no adverse impact on yield, survival or vigor. (Stoddart 1946; Blaisdell and Pechanec 1949; McLean and Wikeem 1985a).

Needle-and-thread (*Hesperostipa comata* (Trin. & Rupr.) Barkworth) clipped to ground level in September and October had recovery ratings the following growing season comparable to ungrazed controls (Pearson 1964). McLean and Wikeem (1985b), working on rough fescue range (*Festuca campestris* Rydb), found no differences in mortality or vigor for unclipped plants vs plants clipped a 5-cm height in September. Short and Knight (2003) found no difference in green herbaceous standing crop between ungrazed and grazed rough fescue after two consecutive years of forage utilization up to 90%. Smoliak (1968) grazed Russian wildrye (*Elymus junceus* Fisch) in the fall, an average of 65% for ten years. Basal area on the grazed pasture increased 62%.

Schmelzer et al. (2014) grazed cheatgrass at 79-80% utilization (3 of 4 years, 59% the other) from early September to mid-December for four years. In two years, they noted 59 and 62% utilization on dormant perennial grasses. The standing crop of the perennial grass component (largely crested wheatgrass) increased from 92 to 560 kg/ha by year four. Woodland (2004) reported 90 to 100% use of the current year's standing herbaceous biomass in mid-October. The following year, biomass of the perennial grasses and forbs increased 43 and 60%, respectively, compared to before the grazing treatment.

Laycock (1967) reported a stock density 2.7 to 4.0 times greater than typical during November and December for 15 to 40 years. All fall grazed treatments had or were trending toward high production levels from perennial herbaceous species. Sheep grazing in the fall typically consume most of the grasses and forbs before switching to shrubs (Woodland 2004); therefore, the perennial herbaceous component was likely heavily grazed most years.

Studies in mid-western grasslands have had similar results. Dormant, warm season grasses (October or November harvest) were not adversely affected by fall grazing at two to six times the recommended summer stocking rate for five consecutive years (Mousel et al. 2011), three years of clipping the same plants to a 4-cm stubble height (Vogel and Bjugstad 1968), or one year of 80% utilization (Schacht et al. 1998). Nor was dormant needle-and-thread clipped to 80% utilization (Koehler et al. 2014). When either needle-and-thread (Mousel et al. 2011) or warm season grasses (Vogel and Bjugstad 1968) had not entered fall – end of growing season - dormancy, intense clipping resulted in reduced yield the following growing season.

Clearly the key to minimal impacts from intense use is at least completion of the annual growth cycle and preferably dormancy of the harvested species. The important physiological attribute is adequate storage of energy reserves. Auen and Owensby (1988) found mowing treatments of dormant warm season grasses to a 5-cm height, for two consecutive years, resulted in no decline

in energy reserves. Trlica and Cook (1971; 1972) applied a one-time 90% utilization (clipping) to cool season grasses - Indidan ricegrass (*Achnatherum hymenoides* (Roem. & Schult.) Barkworth), needle-and-thread, crested wheatgrass and Russian Wildrye - in November. They found only small declines energy reserves and/or growth the following growing season. The effect on squirreletail (*Elymus elymoides* (Raf.) Swezey) was greater, but stored energy reserves one year after the 90% utilization treatment were sufficient for all five species to meet winter respiration and initial growth needs.

References

- Auen, L.M., Owensby, C.E. 1988. Effects of dormant season herbage removal on Flint Hills rangeland. *Journal of Range Management* 41:481-482
- Blaisdell, J.P., Pechanec, J.F. 1949. Effects of herbage removal at various dates on vigor of bluebunch wheatgrass and arrowleaf balsamroot. *Ecology* 30, 298-305.
- Daubenmire, R.F. 1940. Plant succession due to overgrazing in the *Agropyron* bunchgrass prairie of southeastern Washington. *Ecology* 21, 55-64.
- Koehler, A. E., Whisenhunt, W. D., Volesky, J. D., Reece, P. E., Holman, T. L., Moser, L. E. 2014. Yield response of needleand-thread and threadleaf sedge to moisture regime and spring and fall defoliation. *Rangeland Ecology & Management* 67, 46– 51.
- Laycock, W. A. 1967. How heavy grazing and protection affect sagebrush-grass ranges. *Journal of Range Management* 20, 206-213.
- McLean, A., Wikeem, S. 1985a. Influence of season and intensity of defoliation on bluebunch wheatgrass survival and vigor in Southern British Columbia. *Journal of Range Management* 38, 21-26.
- McLean, A., Wikeem, S. 1985b. Rough fescue response to season and intensity of defoliation. *Journal of Range Management* 38, 100-103.
- Mousel, E.M., Schacht, W.H., Reece, P.E., Herron, A.E. and Koehler, A. 2011. Vegetation production responses to October grazing in the Nebraska Sandhills. *Rangeland Ecology and Management* 64, 208-214.
- Pearson, L.C. 1964. Effect of harvest date on recovery of range grasses and shrubs. *Agronomy Journal* 56, 80-82
- Schacht, W.H., Smart, A.J., Anderson, B.E., Moser, L.E., Rasby, R. 1998. Growth responses of warm season tall grasses to dormant season management. *Journal of Range Management* 51, 442-46.
- Schmelzer, L., Perryman, B., Bruce, B., Schultz, B., McAdoo, K., McCuin, G., Swanson, S., Wilker, J., and Conley, K. 2014. Case Study: Reducing cheatgrass (*Bromus tectorum* L.) fuel loads using fall cattle grazing. *The Professional Animal Scientist* 30, 270-278.
- Short, J. and Knight, J. E. 2003. Fall grazing affects big game forage on rough fescue grasslands. *Journal of Range Management* 56, 213-217.

Smoliak, S. 1968. Grazing studies on native range, crested wheatgrass and Russian wildrye pastures. *Journal of Range Management* 21, 47-50.

Stoddart, L.A. 1946. Some physical and chemical responses of *Agropyron spicatum* to herbage removal at various seasons. *Utah Agricultural Experiment Station Bulletin* 324. 24 p

Trlica, M.J.; Cook, C.W. 1971. Defoliation effects on carbohydrate reserves of desert species. *Journal of Range Management* 24,418-425.

Trlica, M.J.; Cook, C.W. 1972. Carbohydrate reserves of crested wheatgrass and Russian wildrye as influenced by development and defoliation. *Journal of Range Management* 25, 430-435.

Vogel, W. G., & Bjugstad, A. J. (1968). Effects of clipping on yield and tillering of little bluestem, big bluestem, and Indiangrass. *Journal of Range Management* 21, 136-140

Woodland., R.D. 2004. Influence of fall grazing by sheep on plant productivity, shrub age class structure and herbaceous species diversity in sagebrush steppe. Thesis. Utah State University. Logan, Utah. USA. 133 p.

Sims et al. (1976) found moderate use (60%) of needle and thread (*Stipa Comata*) across ten years led to a slight increase in the species, despite annual use levels that varied from 27% to 85%, and exceeded 50% six of the ten years. Given that the grazing season was May 1 to October 1, and on average needle and thread completed 71% of its growth by June 15th, and 87% by August 5th, it is very likely that most of the utilization occurred after most of the plant growth. This is further evidence that a set-in-stone utilization standard, regardless of stage of plant growth, is inappropriate. Periodic use above 45%, especially when the growing season has ended (defined as seed set) will not have adverse effects and should be explicatedly acknowledged.

Reference: Sims, P.L., Dahl, B.E., Denham, A.H. 1976. Vegetation and livestock response at three grazing intensities on Sandhill rangeland in eastern Colorado. Experiment Station Technical Bulletin 130. Fort Collins: Colorado State University. 48 p

Page 9. Native Uplands – Perennial Herbaceous Plants. Not to Exceed 50% utilization. Part of the intent of lengthening the grazing season is to manage the vegetation to reduce annual grasses. Using grazing to control annual grasses when perennial grasses are dormant will usually result in use of greater than 50% on the perennial herbaceous component. The aforementioned literature about dormant grazing use and its limited adverse effect demonstrates that the stated use standard is contrary to the goal of managing grazing to reduce annual grasses. The one size fits all utilization standard does not match the biological realities of both the perennial herbaceous vegetation (when dormant) and the use required to achieve a reduction in fine annual fuels.

Page 10. Range Improvements Projects. “*Permittees are required to maintain range improvements each year prior to livestock entering Forest Service managed lands.*” First, this statement contradicts the following statement on page 35: “*The amendment also requires that activities such as new fencing and water trough repairs and installation using heavy equipment be delayed until after July 15 to further protect sage-grouse and other migratory birds.*” Second, it is unrealistic for all range improvements to be maintained before livestock enter the allotment.

For example, in the Quinn River allotment, cattle may enter the riparian pasture as early as April 15. Much of the allotments upper elevations are likely under snow most years on April 15, let alone before April 15 when the work would have to occur. On other allotments with as many as seven pastures, why would a fence in the unit not grazed until early September have to have all work done by an early June turn-on date? It is reasonable to have all pasture unit fences checked and repaired prior to entry into that unit. The concept presented here, keep your infrastructure in working order, is appropriate but the fixed date being before entry into the allotment is often going to be unrealistic.

Page 12: Allotment Management Plans and Annual Operating Instructions. *“The Annual Operating Instructions (AOI) will contain the yearly grazing rotation that is required to be followed and will be provided to the permittee by the local Forest Office each year. These instructions are incorporated as part of the grazing permit. Livestock will graze only upon the specified grazing allotment and only during the permitted grazing period. Any grazing use more than what is identified in the AOI will be treated as a violation of the terms and conditions.”* As written, the AOIs can’t be changed once agreed upon, even if short-term conditions change (i.e., within the current year). Opportunities can appear unexpectedly. There needs to be clear process for rapid, agreed upon changes in operating instructions to take advantage of unplanned or unexpected changes that provide for opportunistic management. The subsequent section, Strategies for Changing Conditions addresses long-term changes in conditions, but has no clear language to address short-term, within year, changes that provide opportunity.

Page 13. Second full paragraph. *“As the selected action is implemented grazing managers and permittees can measure progress toward meeting or moving toward the desired conditions and adjust season of use, grazing management systems, annual utilization on herbaceous and browse, or identify new locations for range developments to better distribute livestock across an allotment.”* The annual utilization levels in this document are presented as a standard (on page 14, Alternative 1) in the draft decision (page 56). Can a standard be changed within the lifetime of this document? If not, then the above statement is not true. To be true, the standards need to be changed to an annual target, that can be modified if long-term vegetation (or other) monitoring data the show current use levels are not having an adverse effect. Regardless, it seems there needs to be language that standards can change when monitoring data show a standard that restrict a use or activity is not causing an adverse effect, said standard was intended to prevent.

Page 13. Monitoring, second paragraph: *“Short-term monitoring occurs across the Santa Rosa Ranger District annually. This kind of monitoring is based on general observations of rangeland conditions by the Forest Service and reports from other interested publics.”* The phrase, “from other interested publics” is concerning. It does not say all interested publics, which would include the permittees. The word “other” by itself is not a clear, all-inclusive term, and implies that reports (presumably hard data and facts) from one or more interests, including permittees, could be excluded. We suggest revising to state, all other interested publics, including permittees.

Page 14. Second paragraph. Table 24 mentioned in the text appears to actually be Table 25 in Vegetation and Range Specialist Report.

Page 14. Fourth paragraph. *If livestock grazing is believed to be the cause of static or downward trend, and management changes are not reversing the static or downward trend, additional monitoring techniques can be used to help determine the root cause of these trends and to determine whether management practices should be modified.* The two words “is believed” cause us great concern. Decisions should be based on data and facts, which often are integrated with research to reach logical conclusions that support the decision. “Is believed” leaves lots of wiggle room for basing decision on something other than good data and facts.

Page 14. Action Alternatives - Alternative 1. *Alternative 1 replaces the 4-inch stubble height annual indicator (as outlined in Table 5) with an annual utilization standard for all herbaceous riparian plant species in wetlands, wet meadows, and riparian areas, and locations along the greenline. The utilization standard is 45% and includes Great Basin wildrye. Utilization rates for dry meadows, riparian browse, native uplands, uplands seeded with naturalized species, and upland browse remain the same as the proposed action (Table 5).* Please see the comment on page 2, under the heading Page 8, stubble height as it has relevance to the comments provided here. As written on page 14 (i.e., utilization standard) and in the Draft Record of Decision on page 56 (i.e., maximum utilization on ...) forage utilization is a one-size fits all within the stated vegetation types, regardless of when it occurs. That does not consider differences in plant physiology at each growth stage (e.g., rapid vegetative growth, seed-head emergence, seed ripe and summer/winter dormancy). Being able to graze the perennial herbaceous more intensely when the plants are dormant is one of the foundations for managing fuel loads when annual grasses are abundant, which is one of the stated reasons in the NEPA document for lengthening the potential season of use to March through November. The utilization standards set here, especially if they are a hard maximum, will often preclude the use of grazing as a management tool for fine fuels.

Also, it is not clear the utilization standards will be applied in an allotment or pasture. If 45% use is the maximum allowed, do the stock go home when the first location in an allotment/pasture reaches 45%, or is the standard an average across the allotment, with some above 45% and some below? We argue for an average of 45% across the unit, not a single location being greater than 45%. If there are one to a few locations with use substantially greater than 45% on a regular basis, and most with use less than 45%, the solution is management at the problem areas, not a unit wide utilization limit driving the decision.

Page 19, Wildfire. *“The proposed flexibility in seasonal use may allow reduction of fine fuel loads through early season grazing, as discussed above, ...”* We appreciate the flexibility of grazing to address fine fuels early in the grazing season. We question why this tool is being focused solely on the early grazing season. Fine fuel accumulation and carryover across years is a 12-month issue. Solutions will also occur with year-round, not seasonal management. Research data show that heavy dormant season grazing in the fall (when the perennial herbaceous usually is dormant) decreases fine fuels and seed banks (Schmelzer et al. 2014; Perryman et al. 2020). This tool needs to be available the entire potential grazing period, from March through November, not just early in the season. The potential adverse effects of heavy grazing toward perennial herbaceous plants are virtually absent in the fall when these plants are typically dormant. The perennial herbaceous component faces increased risk with heavy spring grazing, in part because it is difficult to predict when growth begins, how rapidly it will occur, and when

plants will reach maturity (varies by several to many weeks between years) and become less susceptible to heavy use.

Perryman, B.P., Schultz, B.W., Burrows, M., Shenkoru, T., and Wilker, J. 2020. Fall-Grazing and Grazing-Exclusion Effects on Cheatgrass (*Bromus tectorum*) Seed Bank Assays in Nevada, United States. Rangeland Ecology and Management. 73-343-347.

Schmelzer, L., Perryman, B., Bruce, B., Schultz, B., McAdoo, K., McCuin, G., Swanson, S., Wilker, J., Conley, K., 2014. Case study: reducing cheatgrass (*Bromus tectorum* L.) fuel loads using fall cattle grazing. Professional Animal Scientist 30, 270-278.

Page 29: Vegetation Condition and Trends. *"There are some areas of concern on this allotment, mainly caused by the impacts from unauthorized livestock."* It should be clarified whether the unauthorized livestock are from the current permittee, or from one or more other permittees who use adjacent allotment(s). If the current permittee is not at fault, that should be clear to all who read this document.

Page 56. Decision. *It is also my decision to permanently retire the 868 unallocated head months/AUMs on the Granite Peak allotment.* We seriously question the permanent retirement of these head months/AUMs. First, a stated intent of this document is to increase flexibility of grazing management. That occurs through the changing of fixed grazing seasons to essentially the entire period that access to the Forest, or significant parts of it, is possible (i.e. no seasonally permanent snow cover). The permanent retirement of head months/AUMs works directly against increased flexibility, particularly for fuels management with livestock. Lower elevations of the Granite Peak allotment are amongst the areas most infested with annual grasses. Additional permitted head months/AUMs may well be an important tool to manage vegetation on these sites in the foreseeable future. Second, this change has occurred without any analysis of its need or consequences. This seems to contradict the NEPA process, which analyzes the best available data to reach conclusions. That has not occurred. Nor, was the decision considered with respect to Humboldt County's Natural Resource Management Plan, which has a stated goal of no loss of AUMs from federally administered rangelands. In essence, a required process has been circumvented.

Comments prepared by Brad Schultz, University of Nevada Extension, on behalf of grazing permittees, Santa Rosa Ranger District. Permittees in agreement with these comments have signed below.

Roy Curri, for Rebel Creek Ranch
Kirk D Mader FLATCREEK RANCH
Nancy Crossmilk T Five Ranch
David E. Hawn H S Ranch

BrackSchultz Univ. NV. COOPERATIVE Extension

Pete Marshall (By BrackSchultz per attached instruction)

Bob Buckingham (By BrackSchultz per attached instruction)

Brandon Hoagland, Crawford Cattle LLC, (By BrackSchultz
per attached instruction

From: Pete Marvel

Sent: Tuesday, January 10, 2023 2:20 PM

To: Brad Schultz

Subject: USFS EA comment

Hi Brad. This is Pete Marvel. Would you add my name to your comments on the Santa Rosa rangeland EA. Thank you.

From: Bob Buckingham
Sent: Friday, January 13, 2023 8:14 AM
To: Brad Schultz
Subject: Re: Draft Comments for Santa Rosa Grazing Project

Hello Brad,

I have received the letter and approve the comments, authorizing my signature to be attached to the comments. Bob Buckingham

Thank you
Bob

Ashley will be at the Winnemucca update today and could physically sign on my behalf if needed.
On Wednesday, December 28, 2022 at 12:53:56 PM PST, Brad Schultz [REDACTED] wrote:

Attached are draft comments I have put together. Please review and provide input and thoughts.

Brad

Brad Schultz

Extension Educator, Professor

University of Nevada Cooperative Extension

[REDACTED]

[REDACTED]

Phone: [REDACTED]

Cell: [REDACTED]

Fax: [REDACTED]

Email: [REDACTED]

Website:
<https://extension.unr.edu/default.aspx>

From: Brandon Hoagland
Sent: Friday, January 13, 2023 12:12 PM
To: Brad Schultz
Subject: Santa Rosa Grazing Comments

Hi Brad,

I have read through the comment section you have wrote up for the Santa Rosa Grazing Project. I acknowledge the receipt/approval of the comments and give you the authorization of my signature to be attached for Crawford Cattle LLC.

Thanks,

Brandon Hoagland