GMUG National Forest

Attn: Plan Revision Team

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Please accept the following comments from the undersigned on the Draft Rangeland Management Assessment (DRMA). We apologize for submitting these comments a little bit past the requested date for comments, but we had many assessments to review.

The DRMA has much useful information for guiding development of plan components for the revised plan. However, some of the changes desired by the Forest Service would not be appropriate for the GMUG. We must remember that livestock grazing can be tremendously damaging to soils, native vegetation, watershed integrity, water quality, wildlife habitat, and other resources. It must be carefully managed. We are concerned that under the possible direction for the revised plan implied by the DRMA, livestock grazing might not be properly managed.

**INFORMATION ADEQUACY**

We note that approximately 32% of the total suitable/capable grazed area has not had condition or trend determined, i. e., these important qualities are unknown. Also, “unknown acres represent almost 58% of total grazed area in the Gunnison Basin”. We believe that condition and trend must be determined for most, if not all, of the capable rangeland on the GMUG before plan components are developed. Failure to have full information on range condition and trend could lead to bad decisions in the revised plan and on individual allotment management plans.

Since domestic sheep are grazed on the GMUG and are the most likely vector of disease into bighorn sheep herds, up to date information on bighorn sheep is important. One publication that describes bighorn sheep habitat and the herds that at least partially reside on the GMUG is Beecham et al, 2007. However, it is a bit dated, as bighorn herds can change rapidly with drought, disease, human encroachment on habitat, and other factors. Thus additional information will be needed to ensure that domestic sheep are kept away from bighorns in order to reduce disease transmission, which is probably the main limiting factor for bighorn herds in Colorado.

There needs to be an assessment of the impact of grazing allotment fences on public non-motorized access to our public lands. This is huge overlooked issue. Fencing along many of the travel routes limits public access and use of the forest. It funnels and concentrates human use and adversely impacts wildlife habitat and movement.

It will be very important to have regular monitoring of parts of all active allotments in order to assess range condition and determine stocking and utilization. Such monitoring must be part of the revised plan’s monitoring requirements.

GUMG should commit to conducting full environmental analysis of each grazing allotment as the current permitted use expires. Many of these allotments have never had an environmental assessment; it is thus well past time they did. The public deserves a chance to weigh in on specifics of each allotment as regards past, current, and potential future management vis a vis livestock grazing. These analyses must include true cost/benefit information that shows the burden that is placed on taxpayers in subsidies, both direct and indirect, to continue livestock grazsing. Loss of ecosystem services needs to be quantified to the extent practicable. Costs of fencing, water “improvements”, predator “control”, impacts on endangered/threatened./sensitive species, impacts on water quality, displacement of recreational use, etc. must be analyzed and included.

Information is presented about the decline of grazing permit holders on the GMUG and on public lands in CO (DRMA at 14), but no comparison with the decline of ranchers on private property in Colorado. Is this simply indicative of market and economic realities of this ranching industry?

**DOMESTIC SHEEP VERSUS BIGHORN SHEEP**

As stated above, it is critically important to have up to date information on where bighorn sheep reside, and on the status and trend of each herd. With this information, domestic sheep allotment boundaries can be drawn to ensure there is no contact between native and domestic sheep. It is appropriate but insufficient to require sheep herders

to report incidents of domestic-bighorn interactions, to move domestics away from areas where bighorns are observed, and ensure that no domestics stray from the main flock or are left behind when moving to a new grazing area.

DRMA at 12, 16.

An ounce of prevention is worth a pound of cure. Research clearly shows that transmission of various diseases from domestic sheep to bighorns is an important, if not the most significant, threat to bighorn sheep. See Beecham et al, 2007, at 4. Therefore, the revised plan must contain a strong, enforceable standard(s) that require(s) absolute separation of bighorns and domestic sheep at all times.

**RANGE CONDITION**

Appropriately, the DRMA presents information on rangeland condition. Table 9 at p, 13 shows a rather amazing improvement in range vegetation condition from 1987 to 2005, and further strong improvement from 2005 to 2016. The acres in poor condition have been greatly reduced. We wonder how this was accomplished, as this seems like a very large improvement is a relatively short period of time, given historic grazing on the GMUG. The Assessment should discuss how this rapid improvement was accomplished, if it truly has occurred, and how it might be applied to improve the ranges remaining in poor condition and those in fair condition with a downward trend.

Did the definitions of the conditions of excellent, good, fair, and poor change? How much of the “unknown” acreage, where range condition and trend have not been determined, might be in poor condition, and how might his affect the seeming rapid improvement in range condition?

Confusing the utility of the information on range vegetation is the statement on DRMA p. 15 that range conditions classes are no longer in use. But “range condition”, with the classes excellent, good, fair, and poor, are used on Map 2, p. 20. Is “range condition class” different than the classes for range vegetation condition?

**FORAGE UTILIZATION**

Setting proper forage utilization rate(s) is critical to maintaining key ecosystem characteristics and having a balance of domestic animal usage and wildlife habitat. Properly set, it will reduce (though not eliminate) the damage done by livestock grazing. Adverse impacts to soil and water quality might be kept manageable with proper utilization.

On p. 16, DRMA states:

Current research indicates that setting forage utilization at 40-45% (or a corresponding stubble height) will maintain soil health, protect watersheds, and provide habitat for wildlife and plants.

One research study cited here, Holechek, 1988, is rather dated. Much has been learned about rangeland stocking and ecological conditions since then. The research in the other citation, May, 2014, was done on the great plains, which has a much different climate, i.e ., much longer growing season than any rangeland on the GMUG, and probably more annual precipitation than most of the GMUG rangeland. Thus these studies are likely inapplicable for assessing a proper forage utilization rate on the GMUG. Forty percent forage utilization would be much too high for any GMUG rangeland in poor condition or in fair condition with a downward trend.

The GMUG should not consider permitting “allowable use [to] be exceeded in order to make progress toward desired conditions”. See DRMA at 16. The allowable use, if properly determined and enforced, will allow progress toward the desired plant community (if there is one) or desired structure and composition of vegetation, and help maintain sufficient vegetation and forage for native animals. In other words, proper utilization will itself help make progress toward one or more desired conditions possible. Allowing the utilization to be exceeded would hinder progress toward these desired conditions.

**UNGRAZED LANDS ARE NEEDED FOR CONTROLS TO PROPERLY ASSESS RANGELAND HEALTH**

There is a need for large representative portions of the forest/rangelands to be ungrazed by domestic livestock to establish a baseline of what our forest could/should be absent domestic grazing pressure. Natural response to changing climatic conditions can be observed, measured and assessed, and compared to ecosystem responses to the grazed portions of the forest to inform and improve adaptive management strategies.

Indeed,

Range condition is generally thought of as the status of the range compared to some benchmark usually associated with a theoretical climax or historical plant community…

DRMA at 8; citations omitted. Ungrazed lands are necessary for the benchmark referred to in the quote above.

A need for change is to establish permanent controls, to the extent possible, in areas that have not been grazed by livestock for the longest period of time. The vegetation conditions on these plots can be assessed over time and compared to areas with similar vegetation and elevation that are grazed.

**ENSURE PROTECTION OF RIPARIAN AREAS**

The importance of riparian areas for watershed integrity, water quality, and wildlife habitat is firmly established scientifically. It is also well known that domestic stock, especially cattle, love to congregate in such areas. Large numbers of stock can thus damage riparian areas by denuding vegetation, compacting soils, destroying stream banks, and degrading water quality. In response, the DRMA proposes to:

consider plan direction to maintain a minimum stubble height in riparian areas and/or restrict livestock grazing in wetlands with respect to either timing (how long livestock can be in a riparian area) and/or forage utilization.

Id. at 20. Again, this is appropriate but insufficient to ensure adequate protection of riparian areas. First of all, NO grazing should be allowed in wetlands. The damage is too great and too difficult to reverse in such areas. Also, the number of animals will have to be limited to minimize soil compaction and maintain water quality.

The revised plan needs to have strong standards that will ensure maintenance, and when needed, recovery, of riparian areas in/to natural conditions.

**ESTABLISH CRITERIA FOR WHEN LIVESTOCK SHOULD BE REMOVED OR STOCKING SHOULD BE GREATLY REDUCED**

To improve range condition and restore ecosystems, it will in some cases be necessary to completely remove stock from degraded areas or allow only incidental grazing on such areas for one or more years to allow recovery. Troublingly, the DRMA attempts to discount this necessity:

Grazing is not necessarily a primary driver of vegetation change and even when grazing has been the cause of vegetation change, current levels of grazing may be inconsequential and even completely removing grazing will not always result in return to historical conditions.

Id. at 13; citations omitted.

Granted, many things can change vegetation. However, few factors can change it adversely to the degree that heavy livestock grazing can. Fire does of course change vegetation very quickly, but the effect of fire on vegetation is usually positive because the burning results in a nutrient flush in the soil that facilitates excellent and quick vegetation regrowth.[[1]](#footnote-1)

It is also true that removal of livestock alone may not result in return to a condition within the range of natural variability, as some ranges are so damaged (widespread soil compaction, and weed infestation, streambank destruction, etc. ) that active management would also be needed to complete restoration. However, removal of livestock would still be essential for any restoration to begin. Stated another way, restoration on the most damaged rangelands would be absolutely impossible without first removing livestock.

The revised plan should have criteria for when livestock need to be removed from an allotment, or greatly reduced.

**EXAMINE THE CONDITION OF AREAS WITH LIVESTOCK GRAZING IN DESIGNATED WILDERNESS AREAS**

Livestock grazing in wilderness is legal, but it can easily degrade wilderness characteristics. Soil erosion; the presence structures (including but not limited to fences); soil compaction and erosion; consumption of forage reduces that available for native species; introduction and spread of noxious weeds; etc. can all degrade the quality and experience of wilderness.

In determining the condition of land grazed within wilderness areas (and any areas the revised plan recommends for wilderness designation), wilderness characteristics must be considered in addition to the standard criteria for determining range condition. Where it appears that wilderness character has been degraded, consider reducing stocking or changing the season of grazing as needed to reduce impacts and restore damaged areas.

**USING LIVESTOCK GRAZING AS A VEGETATION MANAGEMENT TOOL**

The DRMA hints that livestock grazing can be used beneficially for vegetation management: “grazing can improve forage quality by removing coarse grasses and allowing for nutrient-rich regrowth”. Id. at 13.

What is the scientific basis for this? It is hard to imagine that livestock grazing could result in an improvement in forage quality, as implied by the quote above. Livestock obviously consume and thus remove some forage. What regrows may be non-native, invasive species, but even if this does not occur, less palatable species may come to dominate the areas that have been grazed by domestic animals.

The DRMA further states that livestock grazing can be used “to reduce fine fuel loads and chang[e] grazing seasons to produce different vegetative structure classes for wildlife habitat.”

Id. at 13. Again, this is at best questionable. Fine fuels can better be reduced by fire, nature’s way of changing vegetation and recycling nutrients. While the domestic animals are reducing the fuel, they will also compact the soil, making it difficult for any vegetation other than weeds to regrow. As for wildlife, they need an adequate quantity of forage, which may not be available in an area that is grazed. Or if available, it may not be as palatable as the forage that would exist in the absence of domestic grazing.

We are especially concerned that under the revised plan, the Forest Service might “identify conditions under which high-intensity, short duration grazing may be used to improve rangeland health.” DRMA at 16. This sounds like part of the thoroughly discredited Savory system, which is based on research in southern Africa. Conditions there are much different than on the GMUG. Again, the GMUG has a much shorter growing season, so any serious damage to soils or rangeland vegetation from intensive grazing can take many years to recover. The animals grazing in allotments on the GMUG are not native, i. e , they did not evolve with the land. Under pre-European settlement conditions, the soils were not pounded and compacted by weighty animals like cows, and forage was not decimated like it sometimes is with domestic sheep. In short, short-term intensive grazing is highly unlikely to be appropriate for the GMUG.

The GMUG must not consider using short-term, high intensity grazing unless there is strong evidence, based on best available science, that: a) the practice is likely to be effective in making progress toward identified desired conditions, and b) ecosystem integrity and natural conditions can be maintained, and c) the practice will not result in increasing the adverse impacts of livestock grazing.

Generally, we believe that any impact from grazing on vegetation is likely to be negative. Therefore, other methods, such as prescribed fire and fire use, should be used to “manage” vegetation in areas where that is deemed desirable to restore ecosystems.

**MISCELLANEOUS**

The last sentence on p. 11 begins with “Generally, the similarity between two 80,005 and 2016 trends…”. We assume “80,005” was intended to be 2005, but the sentence needs to be rewritten.

On page 15, the DRMA, reporting the findings of The Future of America’s Forest and Rangelands, states:

Some subsections in the Interior West experience significant increases in temperature, often exceeding 4 degrees Celsius (39.2 degrees Fahrenheit) by the end of the 50 year projection period.

It isn’t clear if the increase in temperature is predicted to be 4 degrees C or if the average temperature is expected to increase to 4 degrees C (39.2 degrees F). This should be clarified.

**CONCLUSION**

Additional information on range condition and trend must be obtained before plan components for livestock grazing can be developed. Bighorn sheep must be protected from disease transmission. Proper utilization rates must be set to ensure maintenance of ecosystem integrity and provide sufficient vegetation for native animals. Establish ungrazed lands as controls for determining impacts from grazing. Recognize that livestock grazing has very limited, if any, justification as a management tool. Establish criteria for when livestock need to be removed from damaged areas. Evaluate grazed land in wilderness. Ensure adequate protection of riparian areas.

Sincerely,

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**REFERENCE**

Beecham, John J., Cameron P. Collins, and Timothy D. Reynolds, 2007. Rocky Mountain Bighorn Sheep (Ovis canadensis): A Technical Conservation Assessment. Prepared for the USDA Forest Service, Rocky Mountain Region, Species Conservation Project, February 12, 2007.

1. An exception would be in areas that had cheatgrass (*Bromus tectorum*), as any fire might increase the coverage and dominance of this non-native graminoid. [↑](#footnote-ref-1)