GMUG National Forests

Attn: Forest Plan Revision Team

2250 S. Main St.

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Via e-mail: gmugforestplan@fs.fed.us

June 1, 2018

Dear GMUG Plan Revision Team,

The following are the GMUG plan revision scoping comments of Rocky Smith and ??? on rangeland management and livestock grazing. For these comments, we have reviewed the Revised Draft Forest Assessment for Rangeland Management (RDARM), the Scoping Document (SD) published in March, 2018, and relevant parts of various other assessments as noted below.

Sincerely,

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**SCOPING COMMENTS ON LIVESTOCK GRAZING AND RANGELAND MANAGEMENT FOR THE REVISED GMUG PLAN**

Please see our comments on the draft assessment for Rangeland Management, dated December 14, 2017. We hereby incorporate those comments by reference.

INTRODUCTION

The importance of livestock grazing and the need for appropriate rangeland management is highlighted by the following statement:

The GMUG has one of the largest rangeland resource bases (nearly 2.4 million acres) of any [national] forest in the United States, with approximately 51,000 permitted cattle and 27,000 permitted sheep.

SD at 2.

In deciding how many stock of each kind to permit and how to manage rangeland, we must always remember one essential fact: domestic livestock are not native. They did not evolve with native ecosystems. There are thus no biological controls to limit the influences of these animals on native ecosystems.

Commendably, the GMUG seems to recognize this:

Domestic livestock grazing has been a major use in the plan area since Euro-American settlement in 1874, and is one of the multiple uses on the GMUG. Domestic livestock have different impacts on natural communities than native wildlife. They graze in communities historically un-grazed by native herbivores (desert environments) and tend to congregate in certain areas, especially riparian systems…. Cattle grazing on the GMUG was unregulated from the late 1870s to 1905. Efforts to control grazing began once National Forests were established in the plan area in 1905, focusing on adjusting livestock numbers and season of use, though livestock pressure remained high through the 1940s.

Revised Draft Forest Assessment: Terrestrial Ecosystems: Integrity and System Drivers and Stressors (RDTEA), at 16-17; citation omitted.

Improperly managed livestock grazing and/or excessive stocking can do immense damage to soils, water quality, habitat for native species of wildlife and plants, and overall ecosystem integrity. It is likely a significant factor in the introduction and spread of noxious weeds, a major and growing problem on the GMUG.[[1]](#footnote-1)

In some areas of the GMUG, such as much of the Gunnison Basin, that are not very productive, it is difficult to permit enough stock for the operator to cover his/her costs while keeping resource impacts at a reasonable and management level. The Forest Service must resolve any such conflicts in favor of protecting the resource.

ENSURE THAT THE IMPACTS OF GRAZING ARE ANALYZED ON EACH ALLOTMENT

GUMG should commit to conducting full environmental analysis of each grazing allotment as the current permitted use expires. The effects of livestock grazing on many of these allotments have never been analyzed. The public deserves a chance, through the NEPA process, 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 grazing. Loss of ecosystem services needs to be quantified and disclosed. 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.

ENSURE GRAZING IS MANAGED TO MAINTAIN AND CONSERVE BIOLOGICAL DIVERSITY

Ensuring species diversity is a key aspect of forest management that is often compromised by livestock grazing. The full complement of species from insects, pollinators, birds, reptiles, amphibians, mammals, biocrusts (if any), grasses, forbs, shrubs, etc. must be considered in management and monitored, with proactive changes to management implemented as needed. While indicator species are a good threshold there needs to be some field testing that the biotic community is not being depleted over time by consumptive forest uses like livestock grazing. Native biota must not be compromised to accommodate livestock grazing. Livestock grazing should only occur if the full biological component of the forest can be maintained.

DETERMINE THE CAPABILITY AND SUITABILITY OF ALL LANDS ON THE GMUG FOR LIVESTOCK GRAZING

To determine how to manage livestock grazing on the GMUG, the Forest Service should first determine what lands are capable of livestock grazing, i. e., the land produces enough forage, even in a dry year, to support some number of domestic animals. To be capable, lands must also provide access to water for stock without excessive damage to riparian areas, stream banks, or water quality.

Areas found capable of supporting domestic stock should be analyzed for suitability for livestock grazing. The planning rule states the following under “suitability of lands”:

Specific lands within a plan area will be identified as suitable for various multiple uses or activities based on the desired conditions applicable to those lands. The plan will also identify lands within the plan area as not suitable for uses that are not compatible with desired conditions for those lands.

36 CFR 219.7(e)(1)(v). To ensure “integrated resource management to provide for ecosystem services and multiple use integrated with other plan components”, plans may include:

Suitability determinations to indicate management areas or other areas where livestock grazing or wild horse and burro management is or is not suitable, depending on physical and ecological considerations and the desired conditions for the areas.

Planning Directives at FSH 1909.12, section 23.23d 2(c).

Some lands will need to be found unsuitable for livestock grazing based on the desired conditions and objectives for any given alternative.

Generally, in the following areas and conditions, livestock grazing should be prohibited or restricted to protect resources:

 --Research natural areas, except where the area was established at least in part for research on livestock grazing and its impacts. These areas must be unsuitable for grazing.

 --Designated areas (other than wilderness) where grazing could damage the values for which the area was established. These areas need to be unsuitable.

 --Riparian areas and other perennially wet areas. While it would be impossible to keep stock completely out of such areas, they must not be allowed to congregate there.

 --Watersheds in poor condition, i. e., those rated not properly functioning, even if the cause(s) of the impairment do not involve grazing. Allowing livestock grazing in these areas would delay or prevent recovery of these watersheds.

 --Watersheds rated functioning at risk where sediment is part of the impairment. Livestock can trample streambanks and thereby increase sedimentation of streams.

 --Big game winter range. Areas used by deer, elk, and/or pronghorn for winter range must not be utilized by livestock grazing in other seasons to the point where the land’s value as big game winter range is diminished or eliminated. These areas should be unsuitable for domestic grazing.

 --Steep slopes, over about 30 percent. Cattle would probably not graze such slopes, but domestic sheep sometimes do. There can be a strongly adverse impact to vegetation and soils from such use. These areas should be unsuitable.

 --Unproductive areas, i. e., those incapable of producing sufficient forage to support stock. These areas are incapable of livestock grazing and should not be considered for such grazing in any alternative. Some lands in the Gunnison Basin may fit into this category.

 --Range in poor or very poor condition, where livestock must be excluded to allow the lands to recover to fair or better condition. The plan should also contain direction to closely monitor rangelands in fair condition with a downward trend. If the downward trend continues, stock may need to be reduced or exclude from such lands.

 -- Areas where there is a need to conserve intact native ecosystems or recover those in poor ecological condition because of livestock use and/or other factors.

 --Alpine areas, i. e., the land above timberline. With the very short growing season, shallow soils, desiccating winds, and erratic precipitation, most of these lands will be incapable of livestock grazing, but any lands that may be capable should be unsuitable, as alpine areas are very fragile. Any impacts, such as soil compaction from stock use, would take many years to heal, if they ever heal.

 --Areas where there are special status wildlife species or plant species adversely affected by livestock grazing should not be suitable for grazing

 --Control areas, where grazing is prohibited to allow comparison with areas that are grazed. If there are no such areas, they need to be established at various locations, elevations, and dominant vegetation types. The best areas for control sites are those that have never been grazed by domestic stock, but there are probably not many places like that on the GMUG. Control sites can be areas that were previously grazed but have not been stocked for some time and have recovered or are recovering to a more natural state. These areas must be of sufficient size to allow for natural processes to occur. In any case, control sites are unsuitable.

 --In addition to the control sites described above, permanent exclosures at least 50’ X 50’ need to be established in every pasture on a site representing the pasture’s dominant soil/vegetation type to allow for comparison with grazed lands.These control sites and exclosures would allow determination of the impacts of domestic animal grazing across the GMUG.

 --Native sheep habitat must be unsuitable. Domestic sheep must not be allowed to come in contact with native (bighorn) sheep. See further discussion below.

 --Developed recreation sites should be unsuitable for livestock grazing.

 --Areas dominated by ponderosa pine where restoration of the natural vegetation and/or disturbance regime in areas with historically frequent fires is a goal or objective. Lower elevation ecosystems dominated by ponderosa pine had relatively frequent fire. These fires kept the tree stocking down, maintaining the open, park-like structure of these forested areas. The fires were fueled primarily by ground vegetation, i. e., grasses, forbs, and shrubs, the type of vegetation that is consumed or trampled by livestock. Grazing reduces fuels that help allow fires to spread and is thus a form of fire suppression. Therefore, stock will need to be kept off of areas where ponderosa pine-dominated ecosystems with historically frequent fires are being restored.[[2]](#footnote-2)

 --Other areas undergoing restoration or where restoration will be undertaken. These include areas where chaining was done to remove pinyon-juniper and non-native species were planted, and where sagebrush was disked and replanted with non-native species. See RDTEA at 17, and further discussion later in these comments.

 --The plan should limit stocking and period of use so that sufficient seedheads of native species are retained each year to allows native species to reproduce. This reduces the probability that land grazed by livestock becomes denuded or invaded and dominated by noxious weeds. See further discussion on weeds below.

 --Year-long grazing must not be allowed. This does not allow native vegetation or soils any time to recover from the impacts of domestic animals grazing.

 --Grazing on pastures in each allotment must vary from year to year to allow for plant growth. This includes resting some pastures for an entire season.

CONSIDER CLOSING VACANT ALLOTMENTS

The plan revision should examine all allotments currently vacant, and determine which ones might be closed to future livestock grazing. Candidates for closure are: all sheep allotments (as there is low demand for domestically produced wool and mutton); allotments in poor or poorer conditions; allotments with marginal productivity; areas with sensitive soils where damage from grazing is difficult to mitigate; areas where major improvements, including to provide water, would be needed to resume grazing; and allotments that have been vacant for some time (five years or more).

If necessary, decisions to close allotments could be issued with, but separate from, the revised forest plan. See 219.51(c) and 219.59(b).

THE REVISED PLAN MUST SET LIMITS ON FORAGE UTILIZATION

The revised plan needs to set limits on the utilization of range forage. The limits can be flexible and vary, for example, by proximity to deer and elk range, where limits would be lower than elsewhere to ensure sufficient forage for wildlife as well as stock. In no instance should utilization exceed 30%, both for riparian and upland areas. Utilization will be measured only on key native, palatable plant species. The 30% utilization standard will allow allotments to recover some degree of potential native diversity. In Holechek, et al. 1999, a review of 25 grazing studies found that:

Heavy stocking [i.e., 57%] consistently caused a downward trend in ecological condition, light stocking [i.e., 32%] caused an upward trend, and slight improvement occurred under moderate stocking [i.e., 43%].)

Grazing on ranges in poor condition should be prohibited, but if it is allowed, utilization must be very low (no more than about 20 percent), i. e, low enough to allow the range to improve and reach good or better condition within 10 years. If this is not achievable these areas should be closed to grazing by domestic livestock.

The revised plan should also contain measurable standards and guidelines for when stock need to be reduced or removed altogether from a pasture or allotment, e. g, after a fire or when there is a rapid downward trend in range condition.

The revised plan must not allow implementation of a short term, intensive grazing system. This grazing system would not improve rangeland health and would be very inappropriate for the GMUG, as we discussed in our comments on the Draft Rangeland Assessment, dated December 14, 2017, at p. 7.

FIGHT INVASIVE SPECIES AND PROTECT RARE PLANTS

The RDTEA describes invasive plant species as follows:

Invasive plant species generally are species that have been introduced into ecosystems in which they did not evolve, and consequently, tend to have no natural enemies to limit their reproduction and expansion. They also tend to be more vigorous, taller, and more productive than native species… As a result they can out-compete and displace native plant species, often completely taking over a site.

RDTEA at 11; citation omitted.

Noxious weeds and other invasive pant species can quickly dominate a disturbed site. Rangelands with populations of invasive plants (likely most of them) should be prioritized for treatment. The highest priority areas to treat should be those with new or rapidly spreading weed populations of any species, and those with weed species new to the area. Areas with long-established populations of widespread species like Canada thistle would be lower priority, thought they should still be treated when funds and personnel are available.

Permittees should be required to take some measures to limit weed introduction and spread. These include, but are not limited to: helping the agency identify weed populations and prioritizing them for treatment, steering stock away from weed patches, and regularly cleaning any vehicles used in rangeland management.

A variety of treatment methods should be used to attack invasive plants. Herbicides will be needed in some cases, but given a likely impact to non-target vegetation, such use should be a last, not a first, resort. Other methods can include, where appropriate: mowing, hand cutting, burning[[3]](#footnote-3), and uprooting and removal by ground crews

Areas that have been treated should have follow-up monitoring for at least three growing seasons after the conclusion of treatment. Any weed populations discovered should be eradicated.

ESTABLISH AND MAINTAIN NATURAL VEGETATION OR DESIRED PLANT COMMUNITIES

The Forest Plan should strongly encourage all rangelands to achieve a natural vegetation community (NVC). NVC is the composition and structure of vegetation that would exist in the absence of persistent or intensive human disturbance and little to no human interference with natural disturbances, such as fire. It differs from potential natural community, in that the latter is the climax vegetation community that would exist with no natural or human disturbance.

Where native vegetation cannot be totally restored, the plan should encourage a desired plant community (DPC) to be established. The DPC should minimize non-native species as much as possible. Note that a key need for change is:

Consider describing a desired plant community composition for dominant ecosystems (i.e. spruce-fir, aspen, riparian areas, etc.). Provide direction to meet that desired condition.

SD at 5.

The RDTEA (at 17) notes the historic ecological impacts from grazing practices:

The GMUG also shows impacts of historic range-related activities designed to increase forage capacity, including chaining and reseeding of pinyon-juniper woodlands and disking and reseeding (with non-native crested wheatgrass) of large expanses of sagebrush.

Areas that were chained or disked should be restored over time by reestablishing native vegetation, as determined by plant ecologists for each respective site. Areas being restored will need to be unsuitable for livestock grazing.

In general, some restoration has been identified as a key need for change:

Provide direction to maintain or restore key ecosystem characteristics that benefit multiple species. Consider species groupings, or guilds, that capture commonalities. Provide direction to protect or conserve the important common components and additional species-specific direction as needed.

SD at 5.

ENSURE SEPARATION OF DOMESTIC AND NATIVE BIGHORN SHEEP

Research clearly shows that transmission of various diseases from domestic sheep to bighorns is a significant, threat to bighorn sheep. See, e. g., Beecham et al, 2007, at 4, 36. Loss and fragmentation of habitat and human disturbance on winter ranges and lambing ranges also threaten this species. Id. at 36. This leads to smaller herds and a loss of genetic variability, which is a serious threat to small, isolated populations. Id. at 36, 37.

On the GMUG, the threat is greatest in the “Lake Fork of the Gunnison and Lake City area”. Draft Forest Assessment: Identifying and Assessing At-Risk Species (DARA), at 74. The DARA also stated:

A Forest-wide risk assessment is needed to inform management direction in the new forest plan on this issue.

Ibid.

This risk assessment must identify all areas where domestic sheep could come into contact with native sheep. The GMUG should work with the Rio Grande National Forest on this, as at least two bighorn sheep herds reside on both national forests. Beecham et al, 2007, at 52-54.

Minimizing wildlife and livestock conflicts has been identified as a key need for change:

Consider plan direction to minimize wildlife and livestock conflicts (elk, bighorn sheep, etc.) in coordination with permittees and the appropriate agencies, such as U.S. Fish and Wildlife Service, Wildlife Services (USDA), and Colorado Parks and Wildlife.

SD at 5.

The revised plan must contain a strong, enforceable standard that requires absolute separation of bighorns and domestic sheep at all times.

MONITORING

The monitoring plan for the revised forest plan should include direction to monitor all active rangelands (i. e., those with livestock grazing, including pastures being rested) for at least the following:

 --noxious weed introduction and spread

 --soil erosion and compaction

 --water quality

 --effectiveness of fencing and/or other structures to keep stock in the desired areas

 --the success of restorative measures, where they are applied

CONCLUSION

Areas that are incapable and unsuitable for livestock grazing must be determined. Livestock grazing must be carefully managed to ensure it does not diminish the integrity of natural ecosystems or reduce habitat for native species, especially big game winter ranges. Any ranges in poor or poorer condition must be unsuitable for livestock grazing until they are restored to a healthy condition. Healthy native vegetation should be established on all areas. There must be total separation of native and domestic sheep.

**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.

Holechek, J. L., H. Gomez, and D. Galt, 1999. Grazing studies: what we’ve learned. Rangelands 21(2): 12-16.

USDA Forest Service, Rocky Mountain Region, Species Conservation Project, February 12, 2007.

1. “There is still a trend of increasing weed introduction and spread given limited resources for prevention and treatment.” Revised Draft Forest Assessments: Invasive Plants Risk Assessment at 5. [↑](#footnote-ref-1)
2. See RDTEA at 17. [↑](#footnote-ref-2)
3. Burning would obviously not be appropriate for areas with cheatgrass (*Bromus tectorum*), as burning would encourage the spread of this weed. [↑](#footnote-ref-3)