Data Submitted (UTC 11): 4/17/2021 11:00:00 AM
First name: Clinton
Last name: Nagel
Organization: Gallatin Wildlife Association
Title:
Comments: Please accept the following comments from the Gallatin Wildlife Association.

April 17, 2021
Dear U.S. Forest Service:
The Forest Service is presently proposing a set of Directives for its livestock grazing program. These Rangeland Management Directives have the potential to affect millions of acres of public land, including Wilderness. Even with the 60-day extension, the Gallatin Wildlife Association just learned of this comment period. Due to the fact we received such short notice, we feel the agency needs to improve upon their public notice or awareness campaign. We find this disconcerting at least, but we will try to comment the best we can in the time frame we have.Gallatin Wildlife Association (GWA) is a local, all volunteer wildlife conservation
organization dedicated to the preservation and restoration of wildlife, fisheries, habitat and migration corridors in Southwest Montana and the Greater Yellowstone Ecosystem, using science-based decision making. We are a non-profit 501-c (3) organization founded in 1976. GWA recognizes the intense pressures on our wildlife from habitat loss and climate change, and we advocate for science-based management of public lands for diverse public values, including but not limited to hunting and angling.To be blunt, GWA has a hard time with the grazing program, at least the way it has been
administered over the years. We feel the Federal Government is basically providing a federal subsidy to the private sector, especially in terms of the resources lost. According to the Congressional Research Service1, report dated March 4, 2019, Grazing Fees: Overview and Issues, page 8 states the following.
[ldquo]The BLM and FS grazing fee has generally been lower than fees charged for grazing on other federal lands as well as on state and private lands, as shown in studies over the past 15 years. For instance, a 2005 Government Accountability Office (GAO) study found that other federal agencies29 charged $0.29 to $112.50 per AUM in 2004, when the BLM and FS fee was $1.43 per AUM. While BLM and FS use a formula to set the grazing fee, most agencies charge a fee based on competitive methods or a market price for forage. Some seek to recover the costs of their grazing programs. GAO also reported that in 2004, state fees ranged from $1.35 to $80 per AUM and private fees ranged from $8 to $23 per AUM.[rdquo]

GWA will not dwell on this issue as we think the point has been made. This has been an issue for decades and the subject is not new to the Forest Service or the Bureau of Land Management. We strongly suggest that federal agencies increase costs and reinvest those dollars back into the proper maintenance and improvements of the rangeland and riparian areas that have been degraded due to grazing. The following statement on page 3 of that same report states it best.[ldquo]Conservation groups generally assert that low fees contribute to overgrazing and deteriorated
range conditions. Critics assert that low fees subsidize ranchers and contribute to budget shortfalls because federal fees are lower than private grazing land lease rates and do not cover the costs of range management. They further contend that, because some of the collected fees are used for range improvements, higher fees could enhance the productive potential and

environmental quality of federal rangelands.[rdquo]On a side note, we think there should perhaps be a re-education program with the
public, including and especially those landowners participating in the grazing program.
These lands belong to the entire public population, not just a few. It is a privilege for
those to participate in the program, not a right. Stakeholders who participate in the
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* degradation of native plant communities
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* exacerbation of climate stresses and thereby contributing to climate change
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supersedes the concern over the quality of the Nation[rsquo]s public land, water, or wildlife.
Yet it has. Over the years, grazing has been the causation of many damaged riparian

habitats, wildlife loss and habitat fragmentation. Because of the potential of environmental consequences, all changes to the grazing program should comply with federal laws, including the National Environmental Policy Act.And then there is this. In January 2021, the Biden Administration issued a series of Executive Orders. One of them, Executive Order 14008, pertains to climate change and the mitigation efforts which should be enacted to mitigate the negative impacts from a warming climate. Grazing exacerbates the effects of climate change on an already weakened ecological system. The two actions, commercial grazing and combating climate change, are not compatible. The more grazing a natural riparian system experiences, the more soil compaction, increased erosion, and bank disturbances will occur. After which, the more degraded the water quality will be impacted in terms of increased temperature, sediment load and bacteria pollution. These types of impacts are not what you want to see when combating a warming climate.On those lands determined to be sensitive to wildlife habitat or designated wilderness or wilderness study areas, there should be an all-out effort to allow grazing permits to expire.

The Forest Service also needs to spend more resources on the recovery of imperiled or threatened species. A good example of this can be found in the Greater Yellowstone Ecosystem (GYE). In this ecosystem, the Grizzly Bear Primary Conservation Area has been established to protect the viability of the grizzly bear. Yet, lands have been set aside to accommodate the needs for recreation and grazing, both activities which are not conducive to the survivability of the species. We need to rethink our tendency to over commit our resources. Some uses are not compatible and some resources are not conducive to those uses.There needs to be a serious review of the whole grazing program and hopefully that will be done during this opportunity to revisit the Rangeland Management Directives.

Within that review, the Forest Service needs to seriously consider raising grazing fees and returning those funds back into the resource to counteract previously damaged resources. A lot of these actions will not be popular, especially in a very divided political world, but they are necessary. An educational program should be initiated by the Forest Service on this as well as other issues.There is much more to say and much more science to be stated, but it is the Forest Service which must do the right thing for our public lands and wildlife. Remember grazing was not the original rationale for the protection of this Nation[rsquo]s forests and range. It should be done only when it can be done without harm to the ecosystem and then only under the most scrutinization. There are many other uses of our forests and range which should receive a higher priority.Thank you for the opportunity to comment.Sincerely,

Cited References:1. Grazing Fees: Overview and Issues, Congressional Research Service, March 2019. https://fas.org/sgp/crs/misc/RS21232.pdf2. Lund, Gyde, [ldquo]Accounting for the World[rsquo]s Rangeland[rdquo], Society for Range Management. Feb. 2007. https://journals.uair.arizona.edu3. Anne Millbrooke, comments to U.S. Forest Service, Proposed Rangeland Mangement Directives Updates. 2021.4. Gallatin Wildlife Association comments to the Custer Gallatin National Forest Revised Forest Plan, June 2019.5. Derlet, RW, et al, [ldquo]Impact of summer cattle grazing on the Sierra Nevada watershed: aquatic algae and bacteria[rdquo], National Center for Biotechnology Information, 2012. https://www.ncbi.nlm.nih.gov/pubmed/225059506. Derlet, RW; Carlson JR, [ldquo]Coliform bacteria in Sierra Nevada wilderness lakes and streams: What is the impact of backpackers, pack animals and cattle?[rdquo], National Center for Biotechnology Information, 2006.

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The Forest Service also needs to spend more resources on the recovery of imperiled or threatened species. A good example of this can be found in the Greater Yellowstone Ecosystem (GYE). In this ecosystem, the Grizzly Bear Primary Conservation Area has been established to protect the viability of the grizzly bear. Yet, lands have been set aside to accommodate the needs for recreation and grazing, both activities which are not conducive to the survivability of the species. We need to rethink our tendency to over commit our resources. Some uses are not compatible and some resources are not conducive to those uses.There needs to be a serious review of the whole grazing program and hopefully that will be done during this opportunity to revisit the Rangeland Management Directives.

Within that review, the Forest Service needs to seriously consider raising grazing fees and returning those funds back into the resource to counteract previously damaged resources. A lot of these actions will not be popular, especially in a very divided political world, but they are necessary. An educational program should be initiated by the Forest Service on this as well as other issues.There is much more to say and much more science to be stated, but it is the Forest Service which must do the right thing for our public lands and wildlife. Remember grazing was not the original rationale for the protection of this Nation[rsquo]s forests and range. It should be done only when it can be done without harm to the ecosystem and then only under the most scrutinization. There are many other uses of our forests and range which should receive a higher priority.Thank you for the opportunity to comment.Sincerely,

Cited References:1. Grazing Fees: Overview and Issues, Congressional Research Service, March 2019. https://fas.org/sgp/crs/misc/RS21232.pdf2. Lund, Gyde, [ldquo]Accounting for the World[rsquo]s Rangeland[rdquo], Society for Range Management. Feb. 2007. https://journals.uair.arizona.edu3. Anne Millbrooke, comments to U.S. Forest Service, Proposed Rangeland Mangement Directives Updates. 2021.4. Gallatin Wildlife Association comments to the Custer Gallatin National Forest Revised Forest Plan, June 2019.5. Derlet, RW, et al, [ldquo]Impact of summer cattle grazing on the Sierra Nevada watershed: aquatic algae and bacteria[rdquo], National Center for Biotechnology Information, 2012. https://www.ncbi.nlm.nih.gov/pubmed/225059506. Derlet, RW; Carlson JR, [ldquo]Coliform bacteria in Sierra Nevada wilderness lakes and streams: What is the impact of backpackers, pack animals and cattle?[rdquo], National Center for Biotechnology Information, 2006. https://www.ncbi.nlm.nih.gov/pubmed/165389407. Gallatin Wildlife Association comments to the Custer Gallatin National Forest Revised Forest Plan, June 2019.