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First name: Michael

Last name: Garrity

Organization: Alliance For The Wild Rockies

Title: Director

Comments: Name of the Responsible Official, National Forest, Ranger

District where Project is Proposed:

The Responsible Official, Ranger Alex Sienkiewicz, has made available a Draft Decision Notice for the East Paradise Range Allotment Management Plan and its associated Finding of No Significant Impact (FONSI). The East Paradise Range Allotment Management Plan (here after, East paradise) area is in the Yellowstone Ranger District of the Custer Gallatin National Forest (CGNF). The allotments are located in the Absaroka Beartooth Mountain Range along the eastern edge of Paradise Valley north of Yellowstone National Park, east of State Highway 89, and south-east of Livingston, Montana. These are high elevation allotments, ranging from 5,400-feet to nearly 11,000-feet in elevation. Total project area is approximately 20,900 acres. Parts of the Suce Creek and Sixmile South allotments encompass a portion of the Absaroka-Beartooth Wilderness. Parts of all six allotments are within the North Absaroka Roadless Area.

Description of those aspects of the proposed project addressed by the objection, including specific issues related to the proposed project if applicable, how the objector believes the environmental analysis, Finding of No Significant Impact, and Draft Decision Notice (DDN) specifically violates law, regulation, or policy: The EA and DND are contained in the USFS webpage at:

<https://www.fs.usda.gov/project/?project=57353>

Ranger Sienkiewicz decided to implement a blended alternative to manage the six East Paradise Allotments in the proposed alternative or selected alternative. He selected the no action alternative for the Suce Creek and Sixmile South Allotments. Under his draft decision, these two allotments will not be authorized for grazing and will remain vacant.

Ranger Sienkiewicz selected alternative 3 for the Mill Creek, Pine Creek, Elbow, and Sixmile North allotments. These allotments will be managed under an adaptive management framework.

As a result of the Draft DN, individuals and members of the above mentioned groups would be directly and significantly affected by the logging and associated activities. Appellants are conservation organizations working to ensure protection of biological diversity and ecosystem integrity in the Wild Rockies bioregion (including the CGNF). The individuals and members use the project area for recreation and other forest related activities. The selected alternative would also further degrade the water quality, wildlife and fish habitat. These activities, if implemented, would adversely impact and irreparably harm the natural qualities of the Project Area, the surrounding area, and would further

degrade the watersheds and wildlife habitat.

NOTICE IS HEREBY GIVEN that AWR objects pursuant to 36 CFR section 218 to the Responsible Official's adoption of the selected Alternative. As discussed below, the East Paradise Range Allotment Management Plan as proposed violates the Clean Water Act, the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), the Endangered Species Act (ESA), the Gallatin Forest Plan and the Administrative Procedure Act (APA).

Location

The East Paradise Range Allotment Management Plan allotments are located in the Absaroka Beartooth Mountain Range along the eastern edge of Paradise Valley north of Yellowstone National Park, east of State Highway 89, and southeast of Livingston, Montana. These are high elevation allotments, ranging from 5,400-feet to nearly 11,000-feet in elevation. Total project area is approximately 20,900 acres. Parts of the Suce Creek and Sixmile South allotments encompass a portion of the Absaroka-Beartooth Wilderness.

Parts of all six allotments are within the North Absaroka Roadless Area.

1. Specific Issues Related to the Proposed Projects, including how Objectors believes the Environmental Analysis or Draft Record of Decision specifically violates Law, Regulation, or Policy: We included this under number 8 below.

Thank you for the opportunity to object on the East Paradise Range Allotment Management Plan. Please accept this objection from me on behalf of the Alliance for the Wild Rockies and Native Ecosystems Council.

2. Suggested Remedies that would Resolve the Objection:

We recommend that the "No Action Alternative" be selected. We have also made specific recommendations after each problem.

3. Supporting Reasons for the Reviewing Office to Consider:

This landscape has very high wildlife values, including for the threatened grizzly bear, lynx, big game species, and wildlife dependent upon unlogged. The project area will be concentrated within some of the best wildlife habitat in this landscape which is an important travel corridor for wildlife such as lynx, grizzly bears, and wolverine. The agency will also be exacerbating an ongoing problem of displacing elk to adjacent private lands in the hunting season due to a lack of security on public lands. The public interest is not being served by this project.

Suggested Remedies to Resolve the Objection:

We recommend that the authorize livestock grazing on none of the six allotments. We have also made specific recommendations after each problem.

Supporting Reasons for the Reviewing Office to Consider

This landscape has very high wildlife values, including for the threatened grizzly bear, and lynx, big game species, and wildlife dependent upon mature forest habitat. The project area is concentrated within some of the best wildlife habitat in this landscape which is an important travel corridor for wildlife such as lynx, grizzly bears, and wolverine. The agency will also be exacerbating an ongoing problem of displacing elk to adjacent private lands in the hunting season due to a lack of security on public lands. The public interest is not being served by this project.

Thank you for the opportunity to object.

NOTICE IS HEREBY GIVEN that, pursuant to 36 CFR Part 218, AWR objects to the Draft Decision Notice (DDN) and Finding of No Significant Impact (FONSI) with the legal notice published on May 12, 2021, including the Responsible Official's adoption of the selected Alternatives.

AWR is objecting to this project on the grounds that implementation of the Selected Alternatives are not in accordance with the laws governing management of the national forests such as the FLPMA, ESA, NEPA, NFMA, the Gallatin National Forest Forest Plan and the APA, including the implementing regulations of these and other laws, and will result in additional degradation in already degraded watersheds and mountain slopes, further upsetting the wildlife habitat, ecosystem and human communities. Our objections are detailed below.

If the project is approved as proposed, individuals and members of the above-mentioned groups would be directly and significantly affected by the logging and associated activities. Objectors are conservation organizations working

to ensure protection of biological diversity and ecosystem integrity in the Wild Rockies bioregion (including the CGNF). The individuals and members use the project area for recreation and other forest related activities. The selected alternative would also further degrade the water quality, wildlife and fish habitat. These activities, if implemented, would adversely impact and irreparably harm the natural qualities of the Project Area, the surrounding area, and would further degrade the watersheds and wildlife habitat.

Statements that Demonstrates Connection between Prior Specific Written Comments on the Particular Proposed Project and the Content of the Objection

We wrote in our comments

We believe that the Forest Service needs to write an Environmental Impact Statement for this proposal.

The Forest Service responded:

The proposed action does not violate any Federal or state law or requirements for the protection of the environment as documented in the Environmental Assessment and

supporting project record. The project complies with all Montana water quality rules. ConclusionAfter considering the environmental effects described in the EA, specialist reports, and the project file, and after reviewing public comments related to the effects analysis, I have determined that the proposed alternative will not have significant effects on the quality of the human environment (40 CFR 1508.27). An environmental impact statement will not be prepared.

The Forest Service did not conduct surveys in the Project area for this Project for whitebark pine, wolverines, monarch butterflies, pine martins, northern goshawk and lynx, grizzly bears as required by the Forest Plan.

The Forest Plan limits riparian utilization of browse to 50 percent. This is not being done in violation of the Forest Plan (P. 3-20 of the Forest Plan).

The Draft Decision Notice (DDN), EA, and FONSI are in violation of the Forest Plan, NEPA, NFMA, APA and the ESA for not conducting complete and current surveys.

Remedy: Withdraw the draft decision and write an EIS for the project.

We wrote in our comments:

How will this proposal affect Whitebark pine? Please formally consult with the US FWS on the impact of this

project on Whitebark pine since it is now a proposed species.

How will this proposal affect the monarch butterfly? Please formally consult with the US FWS on the impact of this project on monarch butterflies since it is now a proposed species.

The Forest Service responded:

Forest lands and other vegetative communities such as grassland, aspen, willow, sagebrush, and whitebark pine will be managed by prescribed fire and other methods to produce and maintain the desired vegetative conditions.

There is no mention of consulting on the effects of the project on whitebark pine or monarch butterfly. There is no mention of writing a biological assessment for whitebark pine or the monarch butterfly.

The DDN, EA, and FONSI are in violation of the Endangered Species Act, NEPA, APA and NFMA.

Remedy

Please formally consult with the U.S. Fish and Wildlife Service on the effects of the project on whitebark pine and monarch butterflies.

Weeds

We wrote in our comments:

How effective has the Forest Service been at stopping (i.e. preventing) new weed infestations from starting during grazing operations?

Is it true that noxious weeds are one of the top threats to biodiversity on our National Forests?

How can the Forest Service be complying with NFMA's requirement to maintain biodiversity if it has no legal standards that address noxious weeds?

Why isn't the Forest Service considering a Forest Plan amendment in this Project to amend the Forest Plan to include binding legal standards that address noxious weeds?

Will this Project exacerbate existing noxious weed infestations and start new infestations? If they are present and can not be controlled then this is a violation of NFMA, the MUSY Act, the APA and the ESA.

Disclose the level of current noxious weed infestations in the Project area and the cause of those infestations;

The Forest Service Analysis of How Cattle Grazing Affects Spread of Weeds and Restoration of Native Species in Inadequate and Obfuscated by Invocations of "Succession"

There is little doubt that changes in upland and mesic rangelands of Paradise Valley have been dominated by the introduction and spread of non-native plant species

not "succession," as such. Common timothy, smooth brome, Kentucky bluegrass, and yellow sweet-clover are among the palatable non-native species. Cheatgrass and other annual bromes are prominent along the less palatable species. The worst of the weeds include Canada thistle, hounds-tongue, spotted knapweed, leafy spurge, and Dalmatian toadflax, with localized infestations of hoary alyssum, poison hemlock (*Conium maculatum*) and stick-seed (*Lappula squarrosa*).

Importantly, ALL of these are non-native species; ALL of the introductions were directly or indirectly tied to the introduction of non-native herbivores, notably cattle; and ALL of these species have proliferated in large part due to historic and on-going cattle grazing. As problematic, and as acknowledged by the Forest Service, once established it is quite difficult to reduce the abundance of these non-native species, much less restore native rangelands.

That having been said, I (Dr. Madsen) am not aware of any reliable evidence suggesting that perpetuation of cattle grazing is beneficial when it comes to controlling the weeds and other non-native species that have become so abundant on rangelands in Paradise Valley—or of evidence suggesting that grazing significantly promotes the restoration of native grasses such as bluebunch wheatgrass and Idaho fescue. More certainly, the weight of

available evidence supports the benefits of eliminating or reducing rather than perpetuating cattle grazing if the objective is control of weeds and restoration of native vegetation.

Of particular relevance here, none of these dynamics or considerations related to effects of cattle grazing is

useful- ly construed through the lens of [ldquo]succession.[rdquo] Because of this, I (Dr. David Mattson) am again mystified by the For- est Service[rsquo]s invocation of cattle grazing as a means of ef- fecting beneficial successional change on rangelands, first, because [ldquo]succession[rdquo] doesn[rsquo]t capture the major dy- namics and challenges confronting rangeland managers and, second, because the weight of evidence suggests that cattle grazing is more often harmful than beneficial when it comes to limiting the spread of weeds and restoring na- tive grass species. And, to the extent that certain kinds of grazing produce benefits, most goals could likely be achieved by increasing the numbers of native predators such as mountain lions as well as native grazers or

mixed-feeders such as elk.

Recommendation: The Forest Service needs to drop the unhelpful and obfuscating rubric of [ldquo]succession[rdquo] in its assessment of effects attributable to cattle grazing on rangelands and instead focus on more concrete outcomes such as control of weeds and other non-natives, along with restoration and propagation of native plant and ani- mal species. As important, rather than relying on asser- tion and the biased and selective invocation of science, the Forest Service instead needs to take a hard look at the weight of available evidence regarding impacts of cattle

grazing on rangelands such as those encompassed by the East Paradise allotments. I. The Forest Service[rsquo]s Assess- ment of Potential Depredation by Grizzly Bears is Inade- quate

The Forest Service responded:

Mill Creek will be authorized for grazing, but will re- main vacant until noxious weeds have been reduced and enough suitable range becomes available to sustain at least 73 AUMs, at which time the district could permit grazing in the allotment (P. 3, DDN).

Noxious weeds are an issue in the allotments. Most nox- ious weed issues are associated with areas of past timber harvest, but recent disturbance events have also resulted in areas of noxious weeds. The district prioritizes treat- ment of noxious weed infestations by a rating system guided by the Gallatin Weed EIS project. Once areas are prioritized, available funding drives how many acres can be treated in one year. If all the priority acres cannot be treated within one year, treatment will be broken out into a two or three-year plan to ensure that each area is treated. Monitoring would be used to determine effec- tiveness and to identify areas that would need to be re- treated or if treatment areas could be reduced based on effectiveness of previous treatments. Adaptive manage-

ment is used to help guide treatment methods for new invaders.

The Suce Creek, Mill Creek and Sixmile South allot- ments are on the priority list and have been treated con-

sistently over the past ten years. They are usually treated every other year due to the species that are present and the size of the infestations. The other project area allotments are lower priority and are treated as funding allows or a new high priority invader becomes known.

Federal Noxious Weed Act of 1974, as Amended This act provides for the control and management of non-indigenous weeds that injure or have the potential to injure the interests of agriculture and commerce, wildlife resources, or the public health. Alternative 2 (current management) would not violate the Federal Noxious Weed Act, as populations of weeds are currently being treated as necessary as a part of the regular district noxious weed program.

Implementation of Alternative 3 would likely reduce the rate of spread of invasive species within the allotments over time through the use of adaptive management and more intensive monitoring procedures. See the Upland/Riparian Vegetation discussion for Alternative 3. Alternative 1 (no action) would also likely reduce the rate of spread of invasive species over time. Removal of livestock from the allotments would likely result in an increase of native vegetation and other herbaceous species, which provide competition for invasive species. (P. 4, East Paradise Range Environmental Assessment Upland and Riparian Vegetation Report)

adise Range Environmental Assessment Upland and Riparian Vegetation Report)

Suce Creek and Sixmile South Allotments are vacant and have been treated for weeds but the DDN notes that weeds are still a problem from past grazing.

The DDN, EA, and FONSI are in violation of the Multiple Use Sustained Yield Act, FLPMA, NEPA, the Forest Plan, NFMA, APA, and the ESA.

Remedy

Choose the NO action or no grazing alternative or write an EIS that fully complies with the law.

Grizzly bears We wrote:

Please disclose whether you have conducted surveys in

the Project area for this Project for whitebark pine, wolverines, monarch butterflies, pine martins, northern goshawk and lynx, grizzly bears as required by the Forest Plan. Would the habitat be better for whitebark pine, wolverines, monarch butterflies, pine martins, northern goshawks, grizzly bears and lynx if there was no grazing in the Project area?

What is the U.S. FWS position on the impacts of this Project on whitebark pine, monarch butterflies, wolver-

ines, pine martins, northern goshawks, grizzly bears and lynx? Have you conducted ESA consultation on wolverines, monarch butterflies, Whitebark pine, lynx, and grizzly bears?

Please provide us with the full BA for the whitebark pine, wolverines, monarch butterflies, pine martins, northern goshawks, grizzly bears and lynx.

The Forest Service did not consult with the FWS on monarch butterflies and whitebark pine.

Remedy: Please consult with the FWS on the effects of the project on monarch butterflies and whitebark pine.

We included the following comments from Dr. David Mattson in our comments.

D.1. Earlier Stocking with Cow-Calves Virtually Guarantees Increased Depredation

Calves account for almost all victims of grizzly bear and mountain lion depredation on cattle. And, the younger the calf, the greater the odds of falling victim to these predators with peak vulnerability of calves lasting up to 5

months of age. Odds of depredation increase yet more if young calves are released into areas where topographic and vegetation cover facilitates ambush predation. Depredation is virtually guaranteed if livestock are then left unattended for weeks on end.

All of this is relevant to the East Paradise grazing allotments given the extent of ambush cover, the typical husbandry practices of permittees, and the demonstrable presence of mountain lions and, increasingly, grizzly bears. In other words, stocking the East Paradise allotments with cow-calves in June virtually guarantees a depredation problem, even in allotments that have historically not had one.

How many grizzly bears do you expect to be killed over the next ten years if grazing is allowed because of con-

flicts with cattle?

Will Livestock grazing reduce a basic grizzly food source - herbaceous vegetation?

Will the Forest Service require the immediate removal of cattle carcasses?

What measures is the Forest Service requiring to reduce conflict with grizzly bears?

Even more problematic, the typical resolution of a depredation "problem" entails calling in a houndsman or someone from Wildlife Services to kill predators—often

without strategic targeting of perpetrators, especially when dealing with lions. By contrast, I have rarely seen solutions to depredation that involve changing stocking dates or reconfiguring allotment boundaries—much less requiring that permittees exercise better husbandry. The upshot will almost certainly be more dead mountain lions and, prospectively, more dead black and grizzly bears.

Recommendation: The Forest Service needs to drop provisions in Alternatives 2 and 3 for earlier stocking of allotments. Any Alternative that includes grazing also needs to include provisions for strategic fencing to keep cattle away from ambush terrain as well as requirements for closer monitoring of cattle by permittees. I elaborate on some preventative practices in the attached Declaration I wrote as part of litigation contesting Forest Service management of cattle allotments in the Upper Green River area of Wyoming.

The Forest Service's assessment of how Alternatives 2 and 3 will likely impact grizzly bears is patently inadequate.

The EA's relevant conclusions are based almost exclusively on the fact that the East Paradise grazing allotments have not experienced any depredation in the past; the blithe assumption that relevant environmental conditions have remained unchanged; the equally blithe assumption that grizzly bear numbers, distributions, and food habits have also remained unchanged; and complete disregard for the larger geospatial context of grizzly bear recovery.

None of this is warranted.

Most of the cone-producing whitebark pine in the Gallatin Range and in the Absaroka Mountains adjacent to the East Paradise grazing allotments were killed by an outbreak of mountain pine beetles between 2000 and 2010. Losses of mature whitebark pine ecosystem-wide have probably amounted to around 70%. By all indications, loss of this critically important food source for bears resulted in increasing reliance by grizzlies on meat from large ungulates, coincident with declines in regional elk populations, and rapid expansion of grizzly bears into peripheral areas, including the Absaroka Mountains.

This increased reliance on meat coincident with expansion into grazing allotments on public lands has resulted

in an exponential increase in conflicts resulting from grizzly bear depredation on cattle wherever the two phenomena have gone hand-in-hand. The first areas to be affected were the Upper Green River allotments in Wyoming, followed by allotments in the Owl Creek Mountains, and, locally, private lands in Tom Miner Basin.

More recently conflicts have escalated on allotments in the Gravelly Mountains of Montana.

The main point here is that the past offered no clues regarding what the future might hold in all of these areas, at least insofar as grizzly bear depredation on cattle was concerned. And once depredations started to occur, the trend was exponential, leaving managers and permittees scrambling to find solutions, all in an arena typified by

intense conflict among stakeholders. In all these instances, managers failed to exercise foresight or anticipatory prudence—largely because the past held few lessons.

But this excuse does not apply to Forest Service managers responsible for East Paradise grazing allotments. At this point in time there is ample past experience and evidence to be drawn on for assessing likely future levels of cattle depredation by grizzly bears on the East Paradise grazing allotments. Given the increasing number of grizzly bears observed in this area and the experiences of livestock producers in Tom Miner Basin, there is every reason to anticipate that grizzly bears will predate on cattle in the East Paradise area, especially if the Forest Service adopts an earlier grazing season under Alternative 3 that entails the release of cattle with calves <5 months old (see my point D, above).

The unfortunate consequence of such dynamics is, not only that cattle die from depredation, but also that grizzly bears die. In fact, the ratio of grizzly bear to cattle deaths as a result of depredation in the Yellowstone region is not that different from 1:2. And, increasingly, adult female bears are among the toll, which is relevant to the East Paradise allotments given that females with cubs have been documented in nearby areas. The upshot of this is that Alternative 3 will almost certainly negatively affect grizzly bears—with the same likely to hold for Alternative 2 as well.

The location of the Absaroka Mountains lends even greater weight to grizzly bear losses from prospective depredation-related conflicts on East Paradise grazing allotments. The Absarokas have repeatedly been identified as a key part of connective habitat potentially linking grizzly bears in the Greater Yellowstone Ecosystem to grizzly bears in the Northern Continental Divide Ecosystem through the Crazy, Castle, and Little Belt Mountains. Which is to say that the costs to long-term recovery entailed by grizzly bears deaths in the Absaroka Mountains are proportionately greater than costs entailed by deaths closer to the center of the ecosystem. This alone should give Forest Service managers pause.

All of the dynamics that I describe here are more fully explicated in the attached declaration I submitted in support of litigation contesting current management plans for the Upper Green River allotments on the Bridger-Teton National Forest in Wyoming.

Recommendation: The Forest Service needs to take a hard evidence-based look at impacts to grizzly bears likely to result from adopting Alternatives 3 and 2, together with a realistic appraisal of benefits for grizzly bear conservation likely to arise from adopting Alternative 1.

J. The EA Does Not Adequately Account for the Harm Likely to Be Caused Native Wildlife by Implementing Alternatives 2 and 3

As written, the East Paradise EA provides a pro forma assessment of how cattle grazing under Alternatives 2 and 3 will impact native wildlife. But this assessment is only pro forma at best.

We wrote in our comments:

Would the habitat be better for whitebark pine, wolverines, monarch butterflies, pine martins, northern goshawks, grizzly bears and lynx if there was no grazing in the Project area?

The Forest Service responded:

For grizzly bear, the biological assessment determined that the action alternatives May affect, and are likely to adversely affect, grizzly bear. The adverse effect determination for grizzly bear was reached in consultation with the U.S. Fish and Wildlife Service. The reason for an adversely affect determination for grizzly bear is the potential for removal of a grizzly bear due to potential depredation on livestock or bear-human encounters related to livestock management activities that could result in mortality of grizzly bears. The U.S. Fish and Wildlife Service views any potential risk of removal as warranting an adverse effect call. My decision will incorporate into the Sixmile North allotment approximately 1,356 acres of lands previously not authorized for livestock grazing, known as the Trailhead Pasture (see Figure 1). Approximately 970 acres are within the grizzly bear recovery zone/primary conservation area. The acreage of active livestock allot-

ments on the Forest in the RZ/PCA would increase but would continue to be below the level that existed in 1998, which is the baseline level for assessing compliance with the Livestock Grazing Standard. The project would result in no change to the number of active livestock allotments on the Forest within the Recovery Zone/PCA, and the number of active livestock allotments would continue to be below the level that existed in 1998. No depredations have occurred in the project area. However, the project would result in an increased potential for depredation of livestock, as livestock and bears would be present on more of the landscape. There would also be an increased risk of bear-human interactions related to grazing management activities. This could increase the risk of individual grizzly bear mortality due to a greater potential for bear-livestock and human-bear conflicts resulting from increased human presence and livestock on a larger portion of the landscape in the short and long term. Livestock numbers would be low under the selected alternative in the collective allotments, and allotments spatially separated to some degree. For this reason, it is not expected that cattle would serve as a concentrated food source that would attract grizzly bears. Recent studies have shown that in the GYA few depredations have occurred in the month of June.

The extended spring grazing season is not expected to significantly increase the risk of depredation. The effects

of

Decision Notice and Finding of No Significant Impact [ndash] East Paradise Allotment Management Plan¹⁴ cattle grazing on foraging conditions for grizzly bears would be minor because areas outside suitable and capable grazing lands and other areas not used by cattle within the allotments would yield herbaceous forage for grizzly bears.

Grizzly bears have a varied diet cattle are not expected to deplete food sources such as berries, roots, and small mammals, among others. The Endangered Species Act and the National Environmental Policy Act are two different statutes that impose different standards of review on Federal agencies. Under the ESA, if any adverse effect to an individual listed species may occur, and the effect is not discountable, insignificant, or beneficial, the action is considered likely to adversely affect the species. Under NEPA, an adverse effect to a species's population or habitat does not automatically lead to a significance determination. My review of the potential effects to grizzly bear have led me to determine that while there is a potential risk to individual bears due to the proposal, the project would not affect the species in a potentially significant manner. Given the low likelihood of a depredation/self-defense event and subsequent removal or mortality of a grizzly bear, the growing population of grizzly bear, and the multitude of management actions that can be taken to mitigate a depredation event, I find the potential effects are not significant. (pp. 13-14, DDN)

Grizzly bear: May affect, is likely to adversely affect. (Terrestrial Wildlife Report and Biological Evaluation, p. 73).

The project is in violation of the ESA, NFMA, the Forest Plan, NEPA, and the APA.

Remedy

Withdraw the draft DN and write an EIS that fully complies with the law or choose the No Action or no grazing alternative.

1. project EIS to avoid illegally tiering to a non-NEPA document. Specifically analyze the decision to prioritize

mechanical, human-designed, somewhat arbitrary treatments as a replacement for naturally-occurring fire.

2. The EA is not clear if any MIS were found. What MIS did you find, how many and how did you look for these MIS?

3. Which species does the grazing proposal harm?
4. What evidence do you have that this grazing proposal will make the forest healthier for fish and wildlife?
5. Will all WQLS streams in the project area have completed TMDLs before a decision is signed?
6. How will the project improve watershed health?
7. How much more carbon would the project area absorb every year if the no action alternative is chosen versus the preferred alternative?
8. What is the cumulative effect of this project on fish, wildlife and their habitat?
9. What is the effect of grazing on National Forests on

U.S. carbon stores? How many acres of National Forest lands are grazed by cattle every year? How much carbon is increased by that grazing?

10. Is this Project consistent with [research recommendations (Krankina and Harmon 2006) for protecting carbon gains against the potential impacts of future climate change?

11. Please disclose whether you have conducted surveys in the Project area for this Project for whitebark pine, wolverines, monarch butterflies, pine martins, northern goshawk and lynx, grizzly bears as required by the Forest Plan.

12. Please disclose the last time the Project area was surveyed for whitebark pine, monarch butterflies, wolverines, pine martins, northern goshawk, grizzly bears and lynx.

13. Please disclose how often the Project area has been surveyed for whitebark pine, monarch butterflies, wolverines, pine martins, northern goshawks, grizzly bears and lynx.

14. Would the habitat be better for whitebark pine, wolverines, monarch butterflies, pine martins, northern goshawks, grizzly bears and lynx if there was no grazing in the Project area?

15. What is the U.S. FWS position on the impacts of this Project on whitebark pine, monarch butterflies, wolverines, pine martins, northern goshawks, grizzly bears and lynx? Have you conducted ESA consultation on wolverines, monarch butterflies, Whitebark pine, lynx, and grizzly bears?

16. Please provide us with the full BA for the whitebark pine, wolverines, monarch butterflies, pine martins, northern goshawks, grizzly bears and lynx.

17. What Federal Candidate Species-plants for listing under the Endangered Species Act are in the project area.

18. Please formally consult on the impact of the project on all Federal Candidate Species-Plants in the project

area. How will the Forest Service that closures are effective when they haven't been in the past?

How will the Forest Service ensure that illegal roads or trails are not being built?

[bull] Solicit and disclose comments from the Montana Department of Fish, Wildlife, and Parks regarding the impact of the Project on wildlife habitat;

[bull] Solicit and disclose comments from the Montana Department of Environmental Quality regarding the impact of the Project on water quality;

[bull] Disclose the biological assessment for the candidate, threatened, or endangered species with potential and/or actual habitat in the Project area;

[bull] Disclose the biological evaluation for the sensitive and management indicator species with potential and/or actual habitat in the Project area;

[bull] Disclose the current, during-project, and post-project road densities in the Project area;

[bull] Disclose the Custer Gallatin National Forest's record of compliance with state best management practices regarding stream sedimentation from ground-disturbing management activities;

[bull] Disclose the Custer Gallatin National Forest's record of compliance with its monitoring requirements as set forth in its Forest Plan;

[bull] Disclose the Custer Gallatin National Forest's record of compliance with the additional monitoring requirements set forth in previous DN/FONSI and RODs on the Custer Gallatin National Forest;

[bull] Disclose the results of the field surveys for threatened, endangered, sensitive, and rare plants in each of the proposed units;

[bull] Disclose the level of current noxious weed infestations in the Project area and the cause of those infestations;

[bull] Disclose the timeline for implementation;

A. The Forest Service Failed in its Scoping Duties

The scoping for this EA occurred during mid-2013, more than 7-1/2 years ago. For unclear reasons, the EA was put

on hold and then resurrected without updating the scoping process. Needless to say, much has changed between 2013 and 2020 of direct relevance to managing the East Paradise allotments.

My personal experience is germane. I was aware that an EA for the allotments had been initiated and was listed as being on hold on the Custer-Gallatin National Forest's SOPA list. Because of this ambiguity, I sent an email dated 4 September 2020 to Chauntelle Rock, Rangeland Management Specialist for the Yellowstone Ranger District, stating: [ldquo]Could you please send me any public materials pertaining to the East Paradise Range Recession EA? According to the SOPA, this EA appears to be "on hold." Is that right? If so, could you notify me whenever this EA gets rolling again. I am keen to see what the analysis finds.[rdquo]

I heard nothing back in response and was not notified by anyone in the District Office when the EA was released. I only heard about its existence from a friend. Nor was I or anyone else given the opportunity to provide additional information for timely scoping of issues to be addressed in an EA released over 7 years after what was clearly an antiquated antecedent process.

Recommendation: The Forest Service needs to reinitiate the scoping process for this EA as a prelude to undertaking a revised assessment that adequately addresses current issues and public concerns.

B. Alternative 3 is Not an Adaptive Management Alternative

Alternative 3 of the EA claims to employ [ldquo]adaptive management.[rdquo] However, what's described is not adaptive management. Adaptive management entails a rigorous systematic approach to eliciting and closely monitoring responses from complex ecosystems through deployment of practices that embody provisional hypotheses or schema. This approach rests on a disciplined and timely process of gathering intelligence, developing hypotheses, implementing these hypotheses as management actions, monitoring outcomes, and appraising and recrafting provisional hypotheses (see Carl Walter's 1986 classic text for a more complete description of adaptive management).

None of this is evident in descriptions of Alternative 3. A better rubric for what's described would be [ldquo]discretionary management,[rdquo] which is indeed implied by the emphasis placed on [ldquo]flexibility.[rdquo]

Discretion and flexibility are often desirable, but they do not constitute adaptive management. More importantly, neither discretion nor flexibility are appropriate in this case— for several key reasons.

First, deference to managers through the affordance of [ldquo]discretion[rdquo] and [ldquo]flexibility[rdquo] rests on trust—trust that managers will faithfully fulfill their responsibilities as trustees for the public. This means that there will not be bias in favor of certain special interests and that legal mandates will

be faithfully and scrupulously fulfilled. Unfortunately, there is minimal basis for trust in Forest Service managers given a history of politicized decision-making and patterns of bias already evident in the EA.

Second, fungible boundaries for agency accountability—as implied by discretion and flexibility—increase the odds of on-going conflict among stakeholders organized around a lack of stable expectations and attempts to influence how the Forest Service exercises its discretion. Of particular relevance here, there is no lack of stakeholders or conflicts of interest attached to management of the East Paradise allotments, which is a recipe for on-going conflict centered on how the Forest Service exercises its flexibility.

Recommendation: Given these considerations, the Forest Service needs to: first, drop the term “adaptive management” unless the EA is substantially revised to include an alternative that does, in fact, embody the principles and practices of this approach; and, second, establish clear, unambiguous, and measurable standards by which the Forest Service will implement management of grazing on the East Paradise allotments. This precludes current provisions for “flexibility” under Alternative 3 that leave the public wondering how that flexibility will manifest from one month or year to the next, and whose special interests those vagaries will serve.

C. Forest Service Use of “Succession” is Ill-defined and Vagarious

“Succession,” as defined for vegetation, is an ill-defined and contested concept under the best of circumstances.

Even so, there is somewhat greater consensus when applied to forest vegetation compared to when applied to rangeland vegetation. Regardless of the application, the Forest Service’s deployment of this concept in the EA leads me to conclude that either the author(s) had a very poor understanding of this concept or that they were using the concept in politically expedient ways. Neither conclusion is trust-engendering.

C.1. Connections Made by the Forest Service Between Grazing and Succession in Conifer Forests is Not Warranted

Succession in forests encompassed by the East Paradise allotments has largely been—and continues to be—driven by wildfire and outbreaks of insects. There is no evidence that succession in conifer-dominated portions of these forests is affected one way or another by grazing. Which is to say, the invocation of some sort of an effect by grazing on conifer forests, retrogressive or not, is unwarranted if not nonsensical. Yet the Forest Service invokes such an effect when extolling the virtues of Alternative 3, and even Alternative 2, over Alternative 1; that grazing will somehow have “beneficial” effects on forest succession(?); and that “plant vigor and litter accumulation in upland vegetation has increased” the long-term trend is toward late seral stages because cattle grazing has not occurred (as per the Suce Creek allotment).

Another peculiarity of this contrast is the implicit assumption that succession will irrevocably progress in the absence of grazing. This tacit if not explicit claim is likewise nonsensical. The history of wildfires and outbreaks of insects and disease in this region during the last 30 years clearly shows that natural disturbances will continue, probably with increasing frequency and extent. Fire, insects, and disease will axiomatically take care of the

[ldquo]succession problem,[rdquo] to the extent that any such problem exists.

Apropos, there is a somewhat mystifying subtext in the EA characterizing [ldquo]succession[rdquo] as intrinsically problematic. I am unclear why. For one, forest succession does not progress indefinitely, simply because of the predictable perturbations caused by fire, insects, and disease. For another, forest succession provides transient benefits for a host of animal, plant, and fungal species. Some are winners and some are losers at any point in time. This is not intrinsically problematic, especially given the guaranteed intervention of natural disturbance.

Recommendation: Unless the Forest Service can provide unambiguous evidence for a connection between cattle grazing and successional dynamics in conifer forests of the East Paradise allotments, all implication of a such a connection needs to be removed from the EA.

C.2. The Forest Service Neglects the Impacts of Cattle Grazing on Plants and Animals in Aspen and Shrub-Dominated Communities

Declines of shrubby vegetation dominated by species such as aspen, serviceberry, chokecherry, and hawthorn are often attributable, not only to lack of fire, but also to browsing and grazing[mdash]although without any clear conceptual relationship to succession, as such. Disease and insects also play a role. Of the native herbivores, moose are the most prominent browse-dependent species in the East Paradise area and thrive in areas with abundant browse-worthy species such as serviceberry and aspen[mdash]along with a host of birds and insects that benefit from associated structural diversity.

The only evidence-based connection between cattle and [ldquo]succession[rdquo] in shrub-dominated vegetation that I know of is highly problematic. There is ample research and other evidence showing that even modest levels of cattle grazing retard recruitment of sprouts in aspen clones[mdash]to the detriment of all the birds and mammals that depend upon healthy aspen forests. Localized heavy trampling and browsing by cattle also typically reduces the cover of shrubs such as willow, serviceberry, and hawthorn[mdash]again to the detriment of all the animals dependent on browse, cover, or other food provided by vigorous shrub communities. I saw all of this first-hand on our ranch while growing up and have seen the same everywhere I[rsquo]ve observed the impacts of cattle grazing in the Yellowstone region.

Given these clear evidentiary patterns, I find it mystifying that the Forest Service did not take a hard and meaningful look at the likely impacts of grazing under Alternatives 2

and 3 on aspen forests and shrub fields and the many species dependent on these communities. Neglect of these impacts is, in fact, even more mystifying given investments made by the Custer-Gallatin National Forests in [ldquo]restoring[rdquo] aspen forests.

Recommendation: The Forest Service needs to provide a meaningful assessment of the likely impacts of grazing under Alternatives 2 and 3 on aspen forests and mesic shrub fields, along with associated impacts on all of the plant and animal species that either depend on or are closely associated with these communities. Moreover, the Forest Service needs to drop the rhetoric of [ldquo]succession[rdquo] in application to such an analysis given that it obfuscates more than clarifies such an assessment.

C.3. The Forest Service Analysis of How Cattle Grazing Affects Spread of Weeds and Restoration of Native Species in Inadequate and Obfuscated by Invocations of "Succession"

I have a life-time's experience observing rangelands and the dynamics that affect such herbaceous communities, yet I am completely mystified by the Forest Service's argument espousing the beneficial effects of grazing under Alternatives 2 and 3 on rangeland vegetation, including presumed successional benefits.

There is little doubt that changes in upland and mesic rangelands of Paradise Valley have been dominated by the

introduction and spread of non-native plant species—not "succession," as such. Common timothy, smooth brome, Kentucky bluegrass, and yellow sweet-clover are among the palatable non-native species. Cheatgrass and other annual bromes are prominent along with the less palatable species. The worst of the weeds include Canada thistle, houndstongue, spotted knapweed, leafy spurge, and Dalmatian toadflax, with localized infestations of hoary alyssum, poison hemlock (*Conium maculatum*) and stickseed (*Lappula squarrosa*).

Importantly, ALL of these are non-native species; ALL of the introductions were directly or indirectly tied to the introduction of non-native herbivores, notably cattle; and ALL of these species have proliferated in large part due to historic and on-going cattle grazing. As problematic, and as acknowledged by the Forest Service, once established it is quite difficult to reduce the abundance of these non-native species, much less restore native rangelands.

That having been said, I am not aware of any reliable evidence suggesting that perpetuation of cattle grazing is beneficial when it comes to controlling the weeds and other

non-native species that have become so abundant on rangelands in Paradise Valley—or of evidence suggesting that grazing significantly promotes the restoration of native grasses such as bluebunch wheatgrass and Idaho fescue.

More certainly, the weight of available evidence supports

the benefits of eliminating or reducing rather than perpetu-

ating cattle grazing if the objective is control of weeds and restoration of native vegetation.

Of particular relevance here, none of these dynamics or considerations related to effects of cattle grazing is usefully construed through the lens of "succession." Because of this, I am again mystified by the Forest Service's invocation of cattle grazing as a means of effecting beneficial successional change on rangelands, first, because "succession" doesn't capture the major dynamics and challenges confronting rangeland managers and, second, because the weight of evidence suggests that cattle grazing is more often harmful than beneficial when it comes to limiting the spread of weeds and restoring native grass species. And, to the extent that certain kinds of grazing produce benefits, most goals could likely be achieved by increasing the numbers of native predators such as mountain lions as well as native grazers or mixed-feeders such as elk.

Recommendation: The Forest Service needs to drop the unhelpful and obfuscating rubric of

[ldquo]succession[rdquo] in its assessment of effects attributable to cattle grazing on range- lands and instead focus on more concrete outcomes such as control of weeds and other non-natives, along with restora- tion and propagation of native plant and animal species. As important, rather than relying on assertion and the biased and selective invocation of science, the Forest Service in- stead needs to take a hard look at the weight of available evidence regarding impacts of cattle grazing on rangelands such as those encompassed by the East Paradise allotments.

D. Earlier Stocking of Allotments Poses Big Problems

I remain unclear about the justification for stocking the East Paradise allotments at an earlier date[mdash]as early as June 1st. The Forest Service[rsquo]s current presumed justification is that earlier stocking will allow better utilization of palatable non-native grasses, as well as greater [ldquo]flexibility.[rdquo] Beyond this, the Forest Service also seems to imply that greater uti- lization will somehow reduce the abundance of common timothy and Kentucky bluegrass, or at least cause substan- tial structural changes in affected herbaceous communities. There is little said about the potential problems associated with an earlier stocking date, which comes across as a pe- culiar blind spot. Yet there are substantial potential prob- lems. Moreover, the presumed justification is suspect.

D.1. Earlier Stocking with Cow-Calves Virtually Guarantees Increased Depredation

Calves account for almost all victims of grizzly bear and mountain lion depredation on cattle. And, the younger the calf, the greater the odds of falling victim to these preda- tors[mdash]with peak vulnerability of calves lasting up to 5 months of age. Odds of depredation increase yet more if young calves are released into areas where topographic and vegetation cover facilitates ambush predation. Depredation is virtually guaranteed if livestock are then left unattended for weeks on end.

All of this is relevant to the East Paradise grazing allot- ments given the extent of ambush cover, the typical hus-

bandry practices of permittees, and the demonstrable pres- ence of mountain lions and, increasingly, grizzly bears. In other words, stocking the East Paradise allotments with cow-calves in June virtually guarantees a depredation prob- lem, even in allotments that have historically not had one.

How many grizzly bears do you expect to be killed over the next ten years if grazing is allowed because of conflicts with cattle?

Will Livestock grazing reduce a basic grizzly food source - herbaceous vegetation?

Will the Forest Service require the immediate removal of cattle carcasses?

What measures is the Forest Service requiring to reduce conflict with grizzly bears?

Even more problematic, the typical resolution of a depreda- tion [ldquo]problem[rdquo] entails calling in a houndsman or someone from Wildlife Services to kill predators[mdash]often without strategic targeting of perpetrators, especially when dealing with lions. By contrast, I have rarely seen solutions to depredation that involve changing stocking dates or recon- figuring allotment boundaries[mdash]much less requiring that

permittees exercise better husbandry. The upshot will almost certainly be more dead mountain lions and, prospectively, more dead black and grizzly bears.

Recommendation: The Forest Service needs to drop provisions in Alternatives 2 and 3 for earlier stocking of allot-

ments. Any Alternative that includes grazing also needs to include provisions for strategic fencing to keep cattle away from ambush terrain as well as requirements for closer monitoring of cattle by permittees. I elaborate on some preventative practices in the attached Declaration I wrote as part of litigation contesting Forest Service management of cattle allotments in the Upper Green River area of Wyoming.

D.2. Earlier Grazing Will Likely Harm Native Bunchgrasses and Increase Soil Compaction

The Forest Service seems to imply that cattle released on allotments during June will primarily—if not exclusively—graze non-native grasses such as common timothy. This will clearly not be the case. In addition to grazing palatable non-natives, cattle will also graze any accessible native bunchgrasses, with predictable harm to Idaho fescue and bluebunch wheatgrass given that the vigor of both species is reduced by grazing before seed set, which typically occurs during July-August.

The consequences of early season grazing on retention of native bunchgrasses are evident even in Paradise Valley rangelands subject to comparatively light stocking. Non-native perennial and annual bromes and other grasses tend to flourish in less rugged areas nearer water where cattle more often congregate, whereas healthy native grasslands are rel-

egated to steeper terrain. Even in areas where grazing is currently limited to mid-late-summer, the proliferation of non-natives caused by historic early-season grazing persists. This is evident to anyone with training who spends time in upland ranges on either side of Paradise Valley.

Of further relevance, peak spring and early-summer precipitation typifies foothills of Paradise Valley. Soils are more consistently wet during this period and, in turn, more vulnerable to compaction and erosion. As a consequence, any increase in early-season grazing by cattle will likely cause damage to soils, especially in swales, other gentler topography, and loafing areas. The Forest Service acknowledges this impact by suggesting it will “Restrict access to livestock grazing on all allotments when soils are wet,” yet fails to clarify how this provision reconciles with an earlier prospective start to the grazing season.

In other words, the weight of evidence suggests that cattle grazing on East Paradise allotments any time prior to July will harm native rangeland vegetation and degrade rangeland soils. Yet the Forest Service fails to provide a coherent analysis of this prospective harm in the two Alternatives that allow for grazing.

Recommendation: The Forest Service needs provide the public with an unbiased and comprehensive analysis of impacts on soils and native vegetation likely to be caused by grazing cattle during June, as well as clear coherent linkage between these impacts and preferred practices. There is lit-

the evidence of such an analysis in the current EA. Ideally, all provisions for initiating grazing prior to July would be dropped from Alternatives 2 and 3.

D.3. The Forest Service Needs to Provide A More Rigorous Analysis of How Early Season Grazing Will or Will Not Affect Non-native Grasses.

The East Paradise EA left me confused about goals related to non-native grasses and the presumed relation between an earlier grazing season and abundance of these species.

Common timothy, smooth brome, and Kentucky bluegrass are all invasive non-native species that also happen to be palatable to cattle. But common timothy and smooth brome pose a particular threat to native herbaceous vegetation; both tend to increase with disturbance; and, as the Forest Service acknowledges, both are difficult to control once established.

The East Paradise EA claims that cattle will make greater use of common timothy and Kentucky bluegrass during June compared to later in the year, and that timothy becomes essentially unavailable to cattle after setting seed and curing. This purported pattern seems to be the main reason why the Forest Service advocates an earlier grazing season, although the EA seems to also suggest that the Forest Service envisages this earlier grazing as a means of reducing the dominance of common timothy in particular, stating that "[Timothy is particularly sensitive to overgrazing.] This purpose is implied by the stated intent under Al-

ternative 3 [to focus utilization on introduced invasive grasses and provide for maintenance of native perennial grass species.]

The Forest Service's claims and preferred management direction are highly suspect, only weakly supported by evidence, and at odds with more compelling evidence for the likely harm that early-season grazing will cause to native plants and animals. Although cattle will more heavily graze timothy prior to entering the joint stage, utilization of this species by cows can occur throughout the summer. There is, moreover, little or no evidence that in the absence of intensive growing-season-long grazing, early-season utilization will reduce the abundance of timothy, smooth brome, or Kentucky bluegrass—or that any of these species are [particularly sensitive to overgrazing.] If anything, the opposite is likely to be true. It is conceivable that some reduction in cover might be achieved by creating a heavy grazing regime through confinement of cattle to select areas dominated by non-native perennial grasses, but with benefits likely accrued only through integration with an intensive restoration program entailing aggressive weed control and reseedling of native species (see my point E, below).

Recommendation: The Forest Service needs to clarify its objectives regarding both utilization and/or control of common timothy and other invasive grass species. More importantly, whatever the objectives, the recommended means of achieving these ends must be evidence-based and plausible. As is, the EA provides none of this. Perhaps more

importantly, the Forest Service needs to make unambiguously clear that common timothy, along with species such as smooth brome and Kentucky bluegrass, are non-native invasive species that pose a threat to native species, and that effective control of these non-native species should be made a priority.

E. A Priority Management Goal for East Paradise Allotments Should Be Reclamation of Disturbed Areas and Restoration of Native Vegetation

The East Paradise Allotment plan should elevate the goal of controlling weeds and invasive non-natives and restoring native rangelands to a top priority. As important, the adopted management alternative should include methods and actions commensurate with achieving this goal.

The EA claims to make control of weeds a priority as prelude to then describing a weed control program based largely on use of herbicides. This program is de facto represented as being effective. I know for a fact that it is not, despite well-intentioned efforts on the part of the Forest Service. Of particular relevance to the Suce Creek allotment, Canada thistle, houndstongue, poison hemlock, and hoary alyssum have continued to proliferate 18 years after the cessation of grazing despite periodic scatter-shot spraying and even hand-pulling. The point here is that weed control efforts need to be dramatically increased and improved if meaningful progress is to be made.

The only other measure offered by the EA for controlling non-native invasives is an earlier start to the grazing season, with the presumed effect of reducing coverage through greater utilization. I address the implausibility, likely ineffectiveness, and probable collateral damage of this approach above. In other words, the problems posed by non-native invasive grasses will likely persist unabated with prescriptions entailed by Alternative 3.

Clearly, control of weeds and non-native grasses and related restoration of native pastures poses a major challenge that will require substantial investments in remediation—far in excess of anything being proposed under any alternative in the EA. Moreover, perpetuating, much less propagating, cattle grazing on the East Paradise allotments almost certainly works against the goal of restoration.

Recommendation: The management plan adopted for East Paradise allotments needs to include measures that will lead to meaningful restoration of native pastures and rangelands. At a minimum, these should include an augmented program that includes the strategic deployment of biocontrol agents, chemicals, and mechanical treatments, coupled with aggressive propagation of native species in effectively-treated areas without viable seed sources. Continued cattle grazing should, moreover, not be allowed.

F. The Forest Service Fails to Assess Impacts of Cattle on Recreationists and Recreationists on Cattle

The Forest Service's treatment of potential conflicts between recreationist and cattle is a cypher, and amounts to little more than [ldquo]The area provides many recreation opportunities, and some areas have high visitation. Some individuals may react negatively to the presence or interactions with cattle on the landscape. However, these are not new conditions or experiences. The proposal does not change any recreation opportunities.[rdquo]

This treatment constitutes breath-taking indifference to a potentially major issue and, moreover, evinces an almost willful disregard for trends in recreational activity that have been evident for over a decade, with dramatic acceleration during the last 5 years. There is certainly no evidentiary basis for dismissively claiming that [ldquo]Some individuals may react negatively to the presence or interactions with cattle on the landscape. However, these are not new conditions or experiences.[rdquo] How does the Forest Service know this?

Where is its evidence? Have recreationists using the East Paradise allotments been surveyed? Did the EA author(s) even bother to consult the Forest Service's own analyses of trends in recreation, most notably the report recently prepared in support of the Revised Custer-Gallatin National Forests Land Management Plan? As important, the Forest Service altogether fails to acknowledge or address the potential impacts of

recreationists on free-ranging cattle.

These concerns are set against the backdrop of dramatic increases in numbers of recreationists using the Custer-Gallatin National Forests, as well as equally dramatic changes

in the nature of this use—all of which applies to the East Paradise grazing allotments. The increasing numbers of backcountry recreationists are typified by a greater proportion engaging in activities that are guaranteed to increase conflicts with and over cattle.

For one, there are a lot more people mountain biking, whether reckoned proportionately or in sheer numbers. Mountain bikers travel silently and at high speed, which will almost certainly lead to increasing numbers of surprise encounters with cattle, with attendant predictable increases in hazards for the involved people as well as disturbance of the involved cows.

For another, an increasing proportion of users are not only participating in day hikes, but also accompanied by dogs. This greater presence of dogs is likewise guaranteed to result in increased conflicts marked by greater disturbance of cattle. And I'm sure that most of the involved day-hikers, most comparative new-comers to the region, will, in fact, react negatively, protestations of the Forest Service notwithstanding.

These are not trivial issues, which makes the Forest Service's dismissive treatment in the East Paradise EA all the more striking as well as puzzling.

Recommendation: The Forest Service needs to undertake a good-faith assessment of potential conflicts between recreationists and cattle set against critical scrutiny of trends in

levels as well types of backcountry use. The presence of dogs and mountain bikers deserves particular attention.

We wrote in our comments: G. The Forest Service Needs to Clarify Its Approach to Managing the Suce Creek Allotment

The Forest Service describes the Suce Creek allotment as a "temporary forage reserve" that will be utilized at the discretion of managers, but in particular when cattle are displaced from other allotments by drought—among other factors. Even so, I remain unclear about the impacts of this practice, as well as the constraints and policies governing its implementation.

As the Forest Service acknowledges, the Suce Creek allotment consists largely of rugged terrain and dense native forests, much of which is included in the Absaroka-Beartooth Wilderness Area. Rangeland and pastures are limited to a small area of bottomland and steeper south-facing slopes. The bottomland was used as a loafing area by cattle prior to 2012 and heavily impacted by past grazing. Native vegetation has still not recovered from the effects 18 years after grazing ended. These pastures remain dominated largely by non-native invasive grasses and plagued by infestations of weeds. To date, Forest Service treatments have resulted in few lasting gains. The south-facing slopes are in much better condition, support diverse and vigorous native vegetation, but are typified by

carbonate-derived finer-grained soils that are vulnerable to the impacts of trampling.

The point of all this is pretty straight-forward. There are limited grazing resources in this allotment, largely confined either to sites that are vulnerable to the impacts of grazing cattle or to bottomland pastures that are in need of more aggressive restoration efforts—not additional grazing.

Which brings me to my concerns and questions regarding how the Suce Creek allotment will be managed as a temporary forage reserve.

First of all, I assume that even under emergency situations created by fire, drought, or administrative exigencies that stocking levels for the Suce Creek allotment under Alternative 3 will be limited to 177 AUMs, with an end date of no later than October 15th. Is this correct? If so, this basic fact needs to be made clear.

If so, how will these AUMs be allocated to permittees of other allotments under emergency conditions, especially if the Sixmile North allotment is impacted? What does this adjudication/prioritization process look like, in particular when drought conditions are affecting all of the routinely stocked allotments? This needs to be clarified.

Finally, the Forest Service needs to address the likely impacts of placing the maximum permissible number of cows on the Suce Creek allotment under circumstances where this allotment is also being affected by drought.

Aside from wildfire burning a routinely stocked allotment, regional drought is the most likely reason why cattle would be relocated from other allotments to the Suce Creek forage reserve. Yet under these conditions the Suce Creek allotment would be most vulnerable to grazing impacts. How does this get reconciled?

Recommendation: The Forest Service needs to clarify how it will allocate access by permittees to the Suce Creek forage reserve under emergency conditions. It further more needs to adequately assess the likely effects of placing cattle on the Suce Creek allotment during a drought, with likely impacts to sensitive sites and pastures with persisting impacts from past grazing.

The Forest Service responded:

This issue has been resolved by my decision to not authorize grazing in the two allotments within wilderness: Suce Creek and Sixmile South. No other proposed actions take place in wilderness in this project area.

Thank you for not authorizing grazing in the Suce Creek and Sixmile South allotments but the draft decision does not vacate these two allotments. A future decision could allow grazing without studying the cumulative impacts of grazing all six of the allotments.

The project is therefore in violation of the Clean Water Act, the ESA, NEPA, NFMA, and the APA.

Remedy:

Close and vacate the Suce Creek and Sixmile South allotments.

We wrote in our comments, the following comments from Dr. David Mattson.

H. The Forest Service Needs to Clarify How Utilization Standards Address Likely Impacts of Grazing

Under Alternative 3, the Forest Service proposes to seasonally regulate grazing by monitoring utilization of upland and riparian pastures, with allowance for 35-40% use of upland vegetation and 20,30-50% use of riparian vegetation. But, as described in the EA, these provisions raise several questions.

As the EA's author(s) have stated, the East Paradise grazing allotments are rugged, and most are forested. As a consequence, even on the Sixmile North grazing allotment, cattle will tend to be concentrated on lower slopes and bottomlands, with impacts disproportionately incurred on these sites. Loafing areas will be predictably hardest hit.

Which brings me to some questions:

1. Is utilization averaged over an entire allotment, albeit with uplands differentiated from riparian areas?
2. Is there any provision for detecting and limiting grazing impacts on areas subject to disproportionately heavy use by cattle, such as swales, low-slopes, and non-riparian bottomlands?
3. What is or is not considered to be forage, and thus subject to monitoring?
4. Does this include understory herbaceous vegetation in more open upland forests that are less likely to be used by cattle?
5. Aside from strategically locating salt blocks, what is required of permittees to insure a more uniform distribution of grazing—assuming this would be desirable?
6. Are there any provisions for lower levels of use on sites that still support healthy stands of native grasses such as Idaho fescue and bluebunch wheatgrass?

It would be helpful if the Forest Service could provide information in the East Paradise EA that addresses these questions.

Recommendation: The Forest Service needs to provide more information in the East Paradise EA on how it will implement monitoring of forage utilization on East Paradise grazing allotments, including provisions for protecting vulnerable sites and vegetation. The interested public should not be burdened with seeking out, understanding, and applying protocols and practices buried in ancillary

Forest Service documents that guide how the agency monitors vegetation utilization in mountain and foothill rangelands.

Grazing use within occupied grizzly bear habitat will be guided by the direction in the grizzly bear guidelines (Appendix G of Gallatin Forest Plan).

I. The Forest Service's Assessment of Potential Depredation by Grizzly Bears is Inadequate

The Forest Service's assessment of how Alternatives 2 and 3 will likely impact grizzly bears is patently inadequate.

The EA's relevant conclusions are based almost exclusively on the fact that the East Paradise grazing allotments have not experienced any depredation in the past; the blithe assumption that relevant environmental conditions have remained unchanged; the equally blithe assumption that grizzly bear numbers, distributions, and food habits have also remained unchanged; and complete disregard for the larger geospatial context of grizzly bear recovery.

None of this is warranted.

Most of the cone-producing whitebark pine in the Galatin Range and in the Absaroka Mountains adjacent to the East Paradise grazing allotments were killed by an

outbreak of mountain pine beetles between 2000 and 2010. Losses of mature whitebark pine ecosystem-wide have probably amounted to around 70%. By all indications, loss of this critically important food source for bears resulted in increasing reliance by grizzlies on meat from large ungulates, coincident with declines in regional elk populations, and rapid expansion of grizzly bears into peripheral areas, including the Absaroka Mountains.

This increased reliance on meat coincident with expansion into grazing allotments on public lands has resulted in an exponential increase in conflicts resulting from grizzly bear depredation on cattle wherever the two phenomena have gone hand-in-hand. The first areas to be affected were the Upper Green River allotments in Wyoming, followed by allotments in the Owl Creek Mountains, and, locally, private lands in Tom Miner Basin.

More recently conflicts have escalated on allotments in the Gravelly Mountains of Montana.

The main point here is that the past offered no clues regarding what the future might hold in all of these areas, at least insofar as grizzly bear depredation on cattle was concerned. And once depredations started to occur, the trend was exponential, leaving managers and permittees scrambling to find solutions, all in an arena typified by intense conflict among stakeholders. In all these instances, managers failed to exercise foresight or anticipatory prudence largely because the past held few lessons.

But this excuse does not apply to Forest Service managers responsible for East Paradise grazing allotments. At this point in time there is ample past experience and evidence to be drawn on for assessing likely future levels of cattle depredation by grizzly bears on the East Paradise grazing allotments. Given the increasing number of grizzly bears observed in this area and the experiences of livestock producers in Tom Miner Basin, there is every reason to anticipate that grizzly bears will predate on cattle in the East Paradise area, especially if the Forest Service adopts an earlier grazing season under Alternative 3 that entails the release of cattle with calves <5 months old (see my point D, above).

The unfortunate consequence of such dynamics is, not only that cattle die from depredation, but also that grizzly bears die. In fact, the ratio of grizzly bear to cattle deaths as a result of depredation in the Yellowstone region is not that different from 1:2. And, increasingly, adult female bears are among the toll, which is relevant to the East Paradise allotments given that females with cubs have been documented in nearby areas. The upshot of this is

that Alternative 3 will almost certainly negatively affect grizzly bears[mdash]with the same likely to hold for Alternative 2 as well.

The location of the Absaroka Mountains lends even greater weight to grizzly bear losses from prospective depredation-related conflicts on East Paradise grazing al- lotments. The Absarokas have repeatedly been identified

as a key part of connective habitat potentially linking grizzly bears in the Greater Yellowstone Ecosystem to grizzly bears in the Northern Continental Divide Ecosys- tem through the Crazy, Castle, and Little Belt Mountains. Which is to say that the costs to long-term recovery en- tailed by grizzly bears deaths in the Absaroka Mountains are proportionately greater than costs entailed by deaths closer to the center of the ecosystem. This alone should give Forest Service managers pause.

All of the dynamics that I describe here are more fully ex- plicated in the attached declaration I submitted in support of litigation contesting current management plans for the Upper Green River allotments on the Bridger- Teton Na- tional Forest in Wyoming.

Recommendation: The Forest Service needs to take a hard evidence-based look at impacts to grizzly bears likely to result from adopting Alternatives 3 and 2, together with a realistic appraisal of benefits for grizzly bear conserva- tion likely to arise from adopting Alternative 1.

J. The EA Does Not Adequately Account for the Harm Likely to Be Caused Native Wildlife by Implementing Al- ternatives 2 and 3

As written, the East Paradise EA provides a pro forma as- sessment of how cattle grazing under Alternatives 2 and 3 will impact native wildlife. But this assessment is only pro forma at best.

For one, the EA altogether fails to consider how prospec- tive grazing will impact native amphibians, insects, and birds, especially through effects on shrub communities, aspen stands, riparian vegetation, ground stubble, and lo- calized heavy impacts to vegetation and soils on lower slopes and in swales. These animals are all important el- ements of biodiversity.

The EA is also unduly dismissive of how grazing likely af- fects elk and native predators such as mountain lions. In- deed, the weight of available evidence suggests that the impacts of cattle grazing in environments such as those typifying the East Paradise allotments are significant, both by reducing forage for over-wintering elk, by dis- placing elk during the calving and grazing seasons, and, under Alternative 3, by intermixing vulnerable cow- calves with predating mountain lions.

The mere presence of elk, especially on and near the Sixmile North allotment, introduces an additional dynam- ic of relevance to mountain lions. Elk often calve on or near winter ranges, usually between mid-May and mid- June. Elk calves are a favored prey of lions during this period. After calving season, lions typically do not decamp from calving areas and winter ranges to follow elk as they migrate to summer ranges. The usual pattern is for lions to locally switch prey, often to deer[mdash]but inclusive of whatever vulnerable prey may be locally available.

There are significant implications of all this for grazing proposed under Alternative 3. An early June stocking date would impose impacts on calving elk, at a time when cow elk are already experiencing multiple stresses. An early stocking date would, moreover, place vulnerable cow-calves in habitats being actively used by lions to hunt elk calves, with probable spill-over risks for the cow-calves.

Cow-calves would also be candidate alternate prey for lions during late June and early July after the majority of elk vacate winter ranges and calving areas.

Recommendation: The Forest Service needs to provide a good-faith, evidence-based, adequately comprehensive analysis of impacts to the full spectrum of wildlife likely to arise from grazing, especially as proposed under Alternative 3. There is little of this evident in the current EA.

K. Of the Current Alternative, Alternative 1 Best Serves the Public Trust

Alternatives 2 and 3 primarily serve the purpose of providing a handful of permittees the opportunity to graze public lands under provisions that entail heavy subsidies from American taxpayers. The weight of evidence also conclusively shows (as per my point above) that this grazing will likely lead to continued diminishment of native vegetation; adversely impact a wide variety of wildlife; play little or no role in controlling non-native invasive grasses; contribute to impaired experiences of wildlands by a large number of recreationists; and be typified by

conflicts organized around depredation and people on mountain bikes or accompanied by dogs. There are few public benefits from these Alternatives, whereas the prospective costs are high.

By contrast, Alternative 1 clearly better serves the broader public interest and better fulfills the public trust held by the Forest Service. The Forest Service describes presumed problems associated with adopting Alternative 1, including the deadly progression of "succession" and the inevitable persistence of non-native invasive grasses. Yet this characterization is implausible. Grazing will not appreciably change any aspects of forest and shrubland succession, which will continue to be driven primarily by natural disturbances such as wildfire, disease, and insects. There is similarly little reason to think that grazing will reduce the abundance of weeds or non-native grasses, and ample reason to think that grazing will do the opposite. Elk and other native wildlife will continue to introduce ground level disturbances that will likely enhance biodiversity better than patterns of use and disturbance that typify cattle grazing.

Moreover, despite the fact that the East Paradise allotments were preserved when the Absaroka-Beartooth Wilderness Area was designated, it is almost certainly the case that Alternative 1 will serve the interests of a large number of people by preserving and enhancing the wilderness character of existing allotments, compared to

the interests of a trivially small number of permittees served by grazing allowed under Alternatives 2 and 3.

Recommendation: At a minimum, the Forest Service needs to adopt Alternative 1 for future management of the East Paradise grazing allotments (but see my following point L).

L. The Forest Service Needs to Develop and Seriously Consider an Additional Alternative That Retires All Allotments and Features an Aggressive Program for Restoring Native Vegetation

Of the existing Alternatives, Alternative 1 is clearly the most desirable for a large number of reasons. However,

the EA fails to offer an Alternative that probably best serves the broader public interest: one that not only permanently retires all of the East Paradise grazing allotments, but also features an aggressive well-resourced program for controlling weeds, reducing the dominance of non-native invasive grasses, and promoting the restoration of native vegetation.

The Forest Service clearly has ample funds to support building and maintaining road and subsidizing below-cost timber sales and grazing. The funding required to make substantial progress on restoring native vegetation in the East Paradise allotments would be comparatively trivial, even if such a program included a diversity of control and propagation efforts. Ideally, a restoration program would use biocontrol agents in addition to mechanical and

chemical treatments. But reseeding and other revegetation designed to promote native species would also be critical features.

Recommendation: The Forest Service needs to substantially revise the EA by developing and seriously considering an alternative that best serves the public interest through not only the permanent retirement of all East Paradise grazing allotments, but also through featuring an aggressive well-resourced program for restoring native vegetation and controlling weeds as well as invasive non-native grasses.

The Forest Service responded:

Grazing use within occupied grizzly bear habitat will be guided by the direction in the grizzly bear guidelines (Appendix G of Gallatin Forest Plan).

The Forest Service ignored our comments. The project is in violation of NEPA, NFMA, APA and the ESA.

Remedy: Permanently close all of East Paradise allotments.

We wrote in our comments:

How much more carbon would the project area absorb every year if the no action alternative is chosen versus the preferred alternative?

What is the effect of grazing on National Forests on U.S. carbon stores? How many acres of National Forest lands are grazed by cattle every year? How much carbon is increased by that grazing?

Is this Project consistent with [research recommendations (Frankina and Harmon 2006) for protecting

carbon gains against the potential impacts of future climate change?

The Forest Service did not respond to our comments in violation of NEPA. The project is also in violation of NFMA, the ESA, and the APA.

The Proposed Project Flies in the Face of National Climate Policy

The GNF Forest Plan and its FEIS are decades-old and do not effectively address or provide DFC, Prescriptions, Standards and Guidelines addressing climate change. This is an interwoven topic encompassing all aspects of Forest management including, but not limited to, forested habitat manipulations, vegetation treatments, livestock grazing, recreation, roads, trails and other activities. To now be re-issuing grazing permits on the East Paradise Complex is at best premature without this guidance. This Project should

be withdrawn until such time as the climate issues and requirements are codified in the revised Forest Plan.

The CGNF pulled the South Plateau Draft Decision Notice and stated that they would sign a new decision when the revised Forest Plan goes into effect. Why is the CGNF not doing this here? It seems like the CGNF is picking a choosing what Forest Plan is least restrictive for each project. To be consistent, the CGNF should wait and issue a draft decision under the revised Forest Plan.

On January 27, 2021, President Biden signed the Executive Order on Tackling the Climate Crisis at Home and Abroad. One aspect of that Order directed the Interior Department to formulate steps to achieve the President's commitment to conserve at least 30% of our lands and waters by 2030. The Interior Department issued a press release describing this process in more detail and referenced a U.S. Geological Survey (USGS) report that only 12% of lands in the continental U.S. are permanently protected.¹⁰ The USGS protected area database is available online.¹¹

Even those lands given the highest status of current protection such as wilderness areas and national parks are still subject to activities that degrade them from being truly protected. For example, livestock grazing continues in over a quarter of the 52 million acres of wilderness areas in the lower forty-eight states in the U.S.¹²

In Yellowstone National Park, each day during winter, hundreds of snowmobiles pollute and cause disturbance.¹³

Our National Forests, Bureau of Land Management (BLM) managed lands, and State managed lands are further down the list and remain far from protected, being in the third of four levels of protection, the fourth level being no protection at all. According to the January 27, 2021

Executive Order, the Secretary of the Interior shall submit a report within 90 days proposing guidelines for determining whether lands and waters qualify for conservation. The USGS report stresses analyzing and setting aside migration corridors for species (both plants and animals) to prevent their extinction from the effects of climate change.

In 2010, the Forest Service produced a National Roadmap for Responding to Climate Change.¹⁴

This roadmap provides guidance to the agency to: (1) Assess vulnerability of species and ecosystems to climate change, (2) Restore resilience, (3) Promote carbon sequestration, and (4) Connect habitats, restore important corridors for fish and wildlife, decrease fragmentation and remove impediments to species migration. These guidelines are suited to the current goals of the Executive Order and should be foundational in any proposals, analyses or decisions by the CGNF, including this Project. For this Project, the CGNF should undertake mapping of the core and connection areas for each special status species of plant and animal. Current habitat conditions of those areas for the

species in question need to be undertaken mapping of the core and connection areas for each special status species of plant and animal. Current habitat conditions of those areas for the species in question need to be compared to their needs with an analysis of past actions that have fragmented or reduced the capability of these areas. Examples would be timber harvest, road and trail density, livestock grazing and the relation of these to impaired condition such as sediment content of trout spawning areas, aspen recruitment and age class distribution in forested stands, vigor and species composition of riparian and upland plant communities, lynx critical habitat and habitats need for lynx, habitats for amphibians, sage grouse, security cover for grizzly bears and others.

As advocates for restoring wildlife corridors and wildlife habitats, we believe that the Forest Service should analyze these corridors, their associated habitats, and their ability to function for the species of interest, whether it be deer, elk, Canada lynx, lynx critical habitat, wolverine, whitebark pine, grizzly bears, sage grouse or other special status species. This entails use of the quantitative, science-based habitat criteria required for these species and comparing this to the current and potential habitat conditions in the corridor or lands of interest. Then, the agency must adjust management to meet these conditions, such as reducing road density, timber projects, livestock grazing and other actions that fragment and degrade these habitats. In the West, livestock grazing is adversely affecting most of our

National Forest and BLM managed lands. These are all cumulative effects that must be analyzed in combination to Restore Balance on Public Lands and Waters.

Current habitat conditions of those areas for the species in question need to be compared to their needs with an analysis of past actions that have fragmented or reduced the capability of these areas. Examples would be timber harvest, road and trail density, livestock grazing and the relation of these to impaired condition such as sediment content of trout spawning areas, aspen recruitment and age class distribution in forested stands, vigor and species composition of riparian and upland plant communities, secure lynx critical habitat and habitat for lynx, habitats for amphibians, sage grouse, security cover for grizzly bears and others.

As advocates for restoring wildlife corridors and wildlife habitats, we have continued to insist that the Forest Service analyze these corridors, their associated habitats, and their ability to function for the species of interest, whether it be deer, elk, Canada lynx, wolverine, grizzly bears, sage grouse or other special status species. This entails use of the quantitative, science-based habitat criteria required for these species and comparing this to the current and potential habitat conditions in the corridor or lands of interest.

Then, the agency must adjust management to meet these conditions, such as reducing road density, timber projects, livestock grazing and other actions that fragment and degrade these habitats. To date, the Forest Service has ignored our request as pipelines, mines, timber and "forest health"

or "restoration" projects continue to expand their footprint, while roads, noise and activity from off road vehicles are pervasive. In the West, livestock grazing is adversely affecting most of our National Forest and BLM managed lands. These are all cumulative effects that must be analyzed in combination for this Project.

Remedy: Choose the No Action Alternative.

For this Project, the CGNF should undertake mapping of the core and connection areas for each special status

We wrote in our comments:

How will the project improve watershed health?

The Forest Service responded:

The analysis considered the water quality requirements Montana Department of Environmental Quality (DEQ). The streams within the analysis area are designated by the state as B1 streams for water quality standards. Waters classified B-1 are not required to be suitable for drinking in an untreated state. Rather, they are to be maintained suitable for drinking, culinary, and food processing purposes after conventional treatment. They are maintained suitable for bathing, swimming, and recreation; growth and propagation of salmonid fishes

and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply. The DEQ has evaluated portions of Sixmile Creek, Suce Creek, Mill Creek and Pine Creek and no pollutant-related impairment (including E. coli or water chemistry issue such as nitrogen) was identified (DEQ 2020). A portion of Sixmile Creek is considered impaired and appears on the 2018 303(d) list. The listed causes for the water quality impairment determination are sedimentation/siltation and [ldquo]other anthropogenic substrate alterations.[rdquo] Sources of impairment are listed as loss of riparian habitat and placer mining. Although water chemistry and E. coli would not be directly monitored, many of the required monitoring activities would act as surrogate indicators of overuse of riparian, lotic, and lentic areas by cattle that could result in detrimental effects to water quality, including those associated with water chemistry and E. coli. See the following response to comments on [ldquo]Monitoring.[rdquo]

The Draft Decision Notice and FONSI allow for more deflation of riparian areas and will result in degradation of water quality in violation of the Cleanwater Act, Montana Water quality laws, NEPA, NFMA and the APA.

Remedy:

Choose the no action alternative or withdraw the DDN and write an EIS that fully complies with the law. This is a single purpose with no other alternative. It has not expressed the intent of evaluating the allotments for permanent retirement from livestock grazing to restore habitats from past damage, or provide wildlife and watershed benefits, meet the increasing demand for primitive recreation, hunting and fishing in the area. Instead, this

proposal is being made to satisfy the "desires" of the livestock industry.

Alternatives should be analyzed including permanent retirement of livestock grazing from the subject allotments to protect native species and their habitats, water quality and to maximize carbon sequestration for climate benefits.

The Decision should not be signed until all TMDLs in the East Paradise Range Allotment Plan area have been completed to ensure the East Paradise Range Allotment Plan complies with the TMDLs.

Sincerely yours, Michael Garrity