March 21, 2018

Leanne Marten
Regional Forester
Northern Region, Region 1
26 Fort Missoula Road
Missoula, MT 59804

Mary Erickson
Forest Supervisor
Custer Gallatin National Forest
10 E. Babcock, P.O. Box 130
Bozeman, MT 59771

RE: Custer Gallatin Forest Plan revision – bison conservation and management

Dear Ms. Marten and Ms. Erickson,

Please accept the following letter on behalf of Defenders of Wildlife, Greater Yellowstone Coalition and the National Parks Conservation Association.

Defenders of Wildlife (Defenders) is a national non-profit conservation organization founded in 1947 focused on conserving and restoring native species and the habitat upon which they depend, including the plains bison. We submit the following comments on behalf of our more than 1.2 million members and supporters, including more than 5,000 in Montana. Defenders has long participated in bison conservation and specifically in the conservation and restoration of the important bison of the Yellowstone region.

The Greater Yellowstone Coalition (GYC) represents over 90,000 supporters, both in Montana and nationally, that have a continued and vested interest in the conservation and management of wild bison in Montana and throughout the Greater Yellowstone Ecosystem (GYE). GYC has a long history of involvement with issues of bison management surrounding Yellowstone National Park, and our members consider bison one of the most treasured and iconic species in the region.

Ultimately, Defenders is working to ensure wild bison are valued and managed like other wildlife in Greater Yellowstone. Specifically, Defenders envisions a day when Yellowstone bison are sustainably managed as healthy, free-roaming wildlife throughout national parks, national forests and other suitable habitats within the GYE, and are used to restore conservation herds elsewhere in appropriate areas throughout the West.

Since 1919, National Parks Conservation Association (NPCA) has worked to protect and enhance America's national park system for present and future generations. NPCA and our over 7,000 members and supporters in Montana and over 1.3 million members and supporters nationwide have a long history of advocating for Yellowstone-area bison to be managed as valued native wildlife not just inside Yellowstone National Park but on park adjacent lands in Montana.

The following comments are in response to the "Proposed Action – Revised Forest Plan, Custer Gallatin National Forest," and specifically to the Regional Forester's determination that bison are secure and not a *Species of Conservation Concern (SCC)* within the Custer Gallatin planning area. Below, we include a science-based rationale for why the Forest Service should reconsider their SCC determination for bison. In addition, we respond to proposed Custer Gallatin plan direction for bison, and offer specific bison management recommendations.

POLICY FOR IDENTIFYING SPECIES OF CONSERVATION CONCERN

The Forest Service established what amounts to a two-step process for demonstrating compliance with the requirement for conserving at-risk species. First, it requires the regional forester to identify the species that must be addressed during the forest planning process. These include federally listed threatened and endangered species, species proposed for listing and candidate species, determined in accordance with the Endangered Species Act.

Plans must also address SCC. SCC are defined as species that are 1) "known to occur in the plan area," and 2) "the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area." The SCC designation applies to "native species that are not included in federal categories but have declining populations, habitat threats, restricted habitat range or other factors of concern…" (USDA, 2017).

The second step is for the responsible official (normally a forest supervisor) to develop plan components that provide ecological conditions that are necessary for these species. For SCC, the conditions are those necessary to "maintain a viable population" within the plan area (or for some species, "to contribute to maintaining a viable population of the species within its range").[1]

[1] The Planning Rule defines a viable population as one that "continues to persist over the long term with sufficient distribution to be resilient and adaptable to stressors and likely future environments." (36 CFR 219.19)

The directives in Section 12.52b direct responsible officials to use the criteria in Section 12.52d to select the species to consider. This section distinguishes between species that "must" be considered and species that "should" be considered. This is an unnecessary distinction.[2] It is worth thinking about what it means to "consider" in this administrative context. It requires that the regional forester document the information that was taken into account and provide a rationale for including or rejecting a species. Moreover, the information must include the "best available scientific information."[3] With regard to SCC, the documentation must explain how the information indicated or did not indicate "substantial concern about the species' capability to persist over the long-term in the plan area." Note that this is referring to scientific concern that has been expressed that is applicable to species persistence in the plan area rather than a subjective perception of concern by the regional forester.

The directives also make an important distinction between species of broader-scale concern and those where there is local conservation concern. All but one of the categories in the directives address the former by encompassing concerns expressed by NatureServe or government agencies about viability of the species at a broader scale than the plan area. The overall approach is to cast a wide net so that the regional forester can consider species where concern about persistence is indicated for either or both of these reasons. Local conditions in a plan area are relevant at the SCC identification stage as a basis for including additional species for which there might not be broader concern; not as a sole basis for rejecting species for which there is a broader concern. For a species for which there is documented broad-scale concern, the regional forester is obligated to document why the threats suggested by that evidence are not currently present or relevant in the plan area.

Overall, the process developed by the Forest Service is very expansive and inclusive in identifying SCC. The actual needs of these species related to management of the national forest may then be determined when plan components are being developed.

THE CASE OF DESIGNATING BISON AS A SPECIES OF CONSERVATION CONCERN

1. Bison are known to be of substantial conservation concern across their range, and therefore are of concern on the Custer Gallatin, unless the best available science indicates that threats are not present or relevant in the plan area.

Across North America, wild plains bison are considered to be ecologically extinct throughout most of their historic range and heading toward genetic extinction (Bailey, 2013). Freese et al. (2007)

[2] There should be no practical difference between species that "must" and "should" be considered as SCC in any case. The Handbook explains the degree of compliance required by the term "should" (Section 05.1): "Action is mandatory, unless a justifiable reason exists for not taking action. Employees must fully consider, but may depart from based on a written finding as applied to specific circumstances that the deviation will enhance program management efficiency or better achieve desired results or other objectives."

[3] A requirement of all aspects of the planning process, but repeated in 36 CFR 219.9(c)). "Such documentation must: Identify what information was determined to be the best available scientific information, explain the basis for that determination, and explain how the information was applied to the issues considered" (36 CFR 219.3).

documented that the North American bison is ecologically extinct across its former range and, along with Sanderson et al. (2008), called for urgent measures to conserve the remaining wild and free-ranging bison, and restore the species as wildlife in focal areas across its historic range.

Bison are currently listed as "Near Threatened" by the International Union for Conservation of Nature (IUCN) (Gates and Aune, 2008). NatureServe (2015) classifies bison as SH - Possibly Extirpated in Idaho, S1 (*Critically Imperiled*) in Wyoming and S2 (*Imperiled*) in Montana (NatureServe 2015). Bison are considered a "Species of Greatest Conservation Need" (Montana SWAP, 2015) and a "Species of Concern" in Montana "because they are considered to be 'at risk' due to historic extirpation, limited populations, loss of genetic diversity, threats to their habitat, and/or restricted distribution" (DEIS Bison Conservation and Management in Montana, page 9).

The SCC Rationale for the Forest acknowledges the NatureServe S2 ranking, meaning bison are "at risk because of very limited and/or potentially declining population numbers, range, and/or habitat, making it vulnerable to global extinction or extirpation in the state." As discussed, the Forest Service must document why the threats suggested by these science-based rankings are not present or relevant in the plan area. In discussing relevant threats, the SCC Rationale for the Forest acknowledges that limited distribution, abundance and social intolerance are threats to bison, but states that "the IBMP provides high assurance that bison will continue to persist in the long term." First, the rationale does not successfully argue that these threats are not present on the Forest. We note that other species' rationales cite the absence of threats within the plan area. Second, it is not valid to rely on the IBMP as a surrogate for forest plan area persistence, discussed below.

2. <u>The Forest Service cannot rely on the IBMP as a surrogate for forest plan viability.</u>

In the rationale determining that bison are secure within the plan area, the Forest Service argues that "the IBMP provides high assurance that bison will continue to persist in the long term." We do not agree with this logic. The Forest needs to make an independent determination of concern and cannot assume that the IBMP will satisfy NFMA obligations. For the Forest Service, operating under NFMA, the Forest Plan comes first, and the IBMP must be consistent with the Forest Plan, not the other way around.

Similarly, in the rationale, the Forest Service essentially argues that because the Yellowstone herd meets population objectives established by the IBMP, that there is no concern for bison persistence in the plan area. A population objective established for the Yellowstone herd in the context of IBMP management and decision making, while relevant, is not directly applicable to Forest Service SCC decision making. Furthermore, the IBMP population objective of 3,000-3,500 is an arbitrary number (not based on science), meant to keep the population at a lower density to reduce the number of bison leaving the Park and entering Montana where historically, there was very limited tolerance for bison. In fact, the Park's winter carrying capacity for bison has been estimated at 5,500 to 7,500 bison (National Park Service). The National Park Service and State of Montana acknowledge that the current IBMP is outdated (including its population objective) due to changed

conditions on the landscape, increased tolerance for bison, and new science/information regarding the risk of brucellosis transmission. In 2015, the state and NPS began the process to write a new Yellowstone-Area Bison Management Plan (aka IBMP) to reflect these changes and this process is still ongoing. It is not an appropriate or sufficient rational to conclude that the bison population meets the arbitrary objectives based on an outdated plan that is currently being revised. The Forest must make an independent NFMA-based determination that bison are secure within the plan area.

Rather than looking at Yellowstone herd population numbers alone to make a "secure" determination for bison in the planning area, the Forest Service should be evaluating whether the current distribution of bison in the plan area is sufficient to be persistent and viable (i.e. resilient and adaptable over time). The science raises concerns over limited distribution, which must be responded to. While the Yellowstone herd may be at carrying capacity given current constrained distribution, this does not equate to an absence of concern over long-term persistence in the planning area given threats and limited distribution. The fact that there is an overabundance of bison within the Park is evidence that the herd does not have sufficient distribution to meet life history requirements and make meaningful contributions to bison persistence range wide. Abundance numbers alone do not alone justify a finding that the herd is not of conservation concern or value. As noted by Plumb et al. "Conservation of the migratory and nomadic tendencies of bison, as well as their genetic integrity and ecological role, is *paramount for the perpetuation of the species*" (emphasis added). The fact that bison nomadic and migratory tendencies are constrained raises substantial concern over their persistence in the planning area.

3. <u>The Forest Service should not conflate the ESA with NFMA.</u>

The SCC Rationale states that "a host of factors" were recently evaluated by the USFWS when they made a negative 90-day finding on bison, under a nonrelated statute, the ESA. The Forest Service "reviewed and accepted" the USFWS decision as best available science "indicating that none of the factors present substantial concern to long-term persistence in the plan area, since the same population of bison occur in both areas." While the bison may be the same, the ESA decision framework is not as surrogate for viability under NFMA. The Forest Service must provide this evaluation to the public. It is not appropriate to conflate the ESA with NFMA; the USFWS did not determine that there was "no concern" over the persistence of Yellowstone bison within the Custer Gallatin plan area. We also note that a court recently remanded the 90-day finding to USFWS because of a failure to appropriately consider best available science, contrary to what the Forest Service argues in their rationale. The Forest Service should address this issue going forward.

4. <u>The restricted distribution of Yellowstone Bison is a known threat to the viability of bison within the Custer Gallatin plan area.</u>

As noted, the best available science has determined that bison are threatened by restricted distribution, among other factors. Plumb et al. (2009) noted the concern over restricted distribution for the conservation of the Yellowstone herd stating that "management agencies should continue to

prioritize conservation of bison migration to essential winter range area within and adjacent to the park." Bison require access to large areas of land and habitat for viability, this is one of the ecological conditions necessary for their persistence. Current management of bison limits their distribution, thus perpetuating one of the threats noted by the best available science. The limited distribution of Yellowstone bison, thus clearly limits their distribution within the Custer Gallatin plan area. This limited distribution raises substantial concern over their persistence on the Forest.

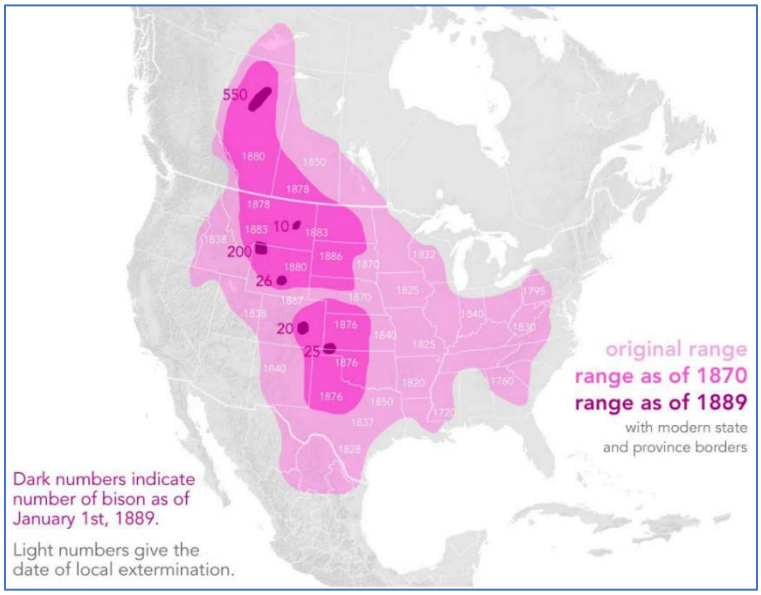

Figure 1. Historical distribution of American plains bison.

When making an SCC determination the Forest Service must consider the historic distribution and abundance of bison (FSH 1909.12 12.53). The Forest Service acknowledges in the SCC Rationale for the Forest that distribution (as well as abundance) are departed from historical conditions on the plan area. It is not sufficient to state that current measures of viability in the plan area are "less bad" than they were in the recent past. (The Forest Service rationale states that there is "potential" to see changes in abundance and distribution in the plan area. While this may be true, it does not supplant a determination that bison are sufficiently distributed within the plan area to be persistent over time.)

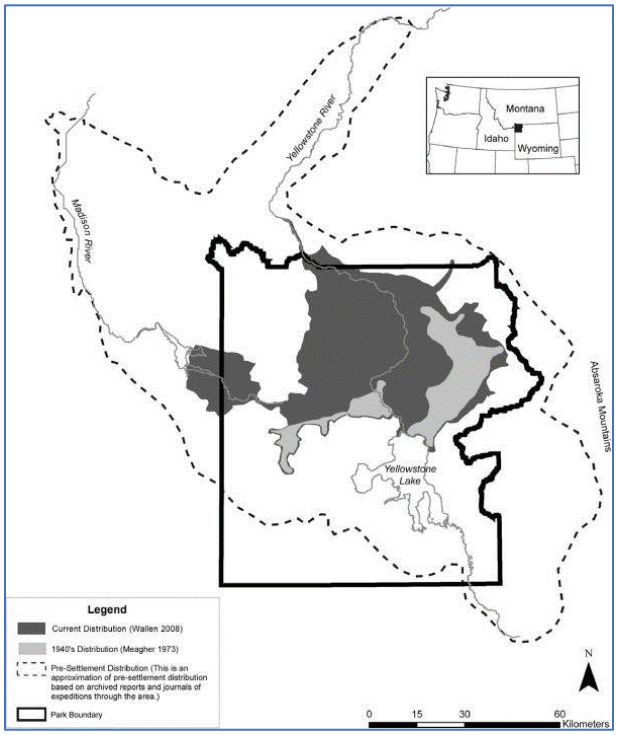

Figure 2. Current and predicted historical distribution of the Yellowstone bison herds. From: White et al. 2011.

Though bison historical distribution once covered much of the state of Montana, including many areas of the Custer Gallatin (see Figures 1 and 2), currently the only truly "wild" bison in the state are those essentially confined to the boundaries of Yellowstone National Park. Yellowstone bison have a significantly restricted distribution (Figure 2) due to social intolerance and unsubstantiated fears around brucellosis transmission risk.

Historically, bison inhabited about 20,000 square kilometers (4,942,108 acres) in the headwaters of the Yellowstone and Madison Rivers (Plumb et al., 2009). As of 2008, they occupied 3,175 square kilometers (784,560 acres), predominantly inside Yellowstone National Park. The current tolerance areas include about 200,000 acres on the west side and about 105,000 acres in Gardiner Basin on the north side. Prior to the Governor's decision, the tolerance zones were 12,500 acres on the north and about 70,000 acres to the west (Custer Gallatin report, 2017). Currently, within the Madison, Gallatin, and Beartooth landscapes, there are 293,151 acres (12.5 percent) of potentially suitable habitat for bison on the Custer Gallatin National Forest (USDA, 2017).

Yellowstone National Park is a high elevation plateau that does not provide optimal ecological conditions for high density year-round use by native ungulates including bison. As the result of harsh winters, bison seek to migrate outside the Park to access adequate forage and calving grounds.

In the past, bison were not constrained to the Park, and exhibited a much more dynamic distribution, as conditions changed due herbivory, seasonal weather conditions, and snowpack. Historically, bison may have occupied lands within the plan area year-round.

Because of intensive management actions however, this migratory movement is limited, as is the opportunity to expand winter range (and the bison range in general) throughout suitable habitats north and west of the Park (Plumb et al., 2009). Plumb et al. also noted that population levels of about 550 and 1,500 for the Northern and Central herds, respectively, trigger migration outside of the Park. In making an SCC determination, the Forest Service must acknowledge the fact that the current distribution of bison within the planning area is limited, which raises concerns over the resiliency, adaptability and persistence of the planning area population.

Yellowstone bison are of concern within the Custer Gallatin plan area because they have limited ability to migrate and utilize key habitats on the Forest, including distribution within winter range, spring calving grounds, and with an increasingly important extent, summer-fall habitat. The absence of these necessary ecological conditions, combined with the manifestation of threats within the plan area, raise concerns over whether the planning area population is likely be adaptable and resilient over time.

5. <u>The Forest Service must consider genetic diversity and the decline of the Central Herd when making SCC determinations.</u>

Yellowstone bison are considered by many to be the last truly wild, ecologically viable, genetically pure, and wide-ranging population of plains bison in existence. As such, the Yellowstone bison population plays a vital role in restoring the species across its range. As with Yellowstone bison, genetically important herds, both those that are apparently free of cattle genes and those that harbor unique parts of the total bison gene pool, <u>need to be conserved</u> (Freese et al., 2007, p. 181). A precautionary approach dictates that we create viable satellite herds of each of the existing (and last remaining) genetically important bison herds of North America (Freese et al., 2007, p. 181). An SCC

determination will allow the Forest to manage Yellowstone bison with the precautionary principle for conservation. This means developing best management practices and applying them to existing herds; an SCC determination will afford the Forest such an opportunity.

Yellowstone's bison population is of high genetic value for supplementing other conservation herds in the West. The health of this highly-valued population, so key to recovery of the species, includes the animals that occupy forest lands. Outside of the national park, the Custer Gallatin is the only forest where bison are managed in Montana; therefore, the Forest can play a distinct and integral role as a federal partner in its recovery.

Historically, the Yellowstone bison population has been described by numbers of bison using and breeding in two different geographic regions of the park (Northern and Central), while also noting bison migrate out of the Park during the winter months, with many animals inhabiting those areas today year-round (Hayden and Lamar valleys). As of August 2017, there was an estimated 4,816 bison in Yellowstone, including two primary breeding herds: Northern (3,969) and Central (847) (Geremia et al., 2017). In recent years (since 2005), there has been a dramatic decline in the Central herd from 3,500 animals in 2005 to 847 currently (Geremia et al., 2014), which has been a significant cause for concern. With the decline to 847, the risk of this population dropping to below 400 is very real. This minimum herd size for sustainability is the minimum number of animals needed to sustain the long-term genetic health of a herd (Freese et al., 2007). In fact, Pérez-Figueroa et al. 2012 suggested a minimum of 3,250 bison for the total population with at least 1,000 bison in each breeding herd to ensure the long-term demographic and genetic integrity and health of both the Northern and Central herds is maintained. It is also noteworthy that this decline has occurred since 2005, not merely for just one year but representing an actual trend in decline.

6. A *Species of Interest* designation is not appropriate for bison.

The proposal to designate bison as a *Species of Interest* does not provide the proper mechanism for adequate conservation and management of bison on the Forest. It fails to acknowledge the best available science indicating concern within the plan area, and does not ensure that the forest plan will provide the necessary direction to provide the ecological conditions necessary to maintain or contribute to the viability of bison.

7. The Forest Service should contribute to broad efforts to conserve bison.

In failing to acknowledge widespread concern over bison persistence, the Forest is failing to support the goals of the U.S. Department of Interior and the International Union for Conservation Nature for restoring the species throughout its historic range as well as with the State of Montana's management of bison as a *Species of Concern*. Through a Forest Service SCC determination, the Custer Gallatin Forest can fulfill its lawful obligations under the National Forest Management Act to sustain the diversity of national forest lands, play a significant role in contributing to bison recovery,

and more effectively employ the management tools needed to take the appropriate steps in bison conservation on the Forest.

Of critical importance to the conservation of this species is the need for all jurisdictions to act together and have a shared responsibility in management and recovery goals. To do this effectively, a similar conservation designation of bison – across jurisdictions – is needed. This rationale for consistency, whether a *Species of Concern* or *Species of Greatest Conservation Need (MT)*, *Near Threatened* (IUCN), *Near Critically Imperiled* (MT and WY), and in the case of the Forest, due to an artificial construct resulting in limited range and restricted access to vital habitats; therefore, a SCC designation– all underscore a shared commitment to restore bison to its historic range. Our national mammal deserves this collaborative approach and with shared management goals in conservation.

8. The Forest Service must consider the ecological importance of bison.

The Forest has an obligation to manage ecosystems for ecological integrity. When considering the SCC question, the Forest Service must acknowledge that bison play a fundamental and essential role in maintaining and restoring grassland ecology and function. The fact that bison are essential to restoring the ecological integrity of the ecosystems to which they belong bolsters the case for SCC status (FSH 1909.12 12.53 requires the Forest Service to consider the ecological function of species when determining SCC). Bison can in fact be a conservation tool for the Forest to better utilize habitat for management. Lost is the large influence of bison as a grazer that once roamed over large areas creating a mosaic of grazing intensities, as a major converter of grass to animal biomass that provided food for Native Americans, predators, scavengers and decomposers, as a key link to nutrient recycling, and as a maker of walls and mini-wetlands, among other factors (Knapp et al., 1999; Turett et al., 2001). Heavily grazed areas also may have acted as fire breaks, which further influenced plant species diversity and structural heterogeneity in tall grass prairie (Hartnett et al., 1996). If allowed, this is something bison could continue to do on the forest today.

MANAGEMENT RECOMMENDATIONS

The Custer Gallatin National Forest surrounds much of Yellowstone National Park and is critical habitat for and used by wild, migratory and resident bison. Approximately 88% of lands in the newly designated tolerance zone (~380,000 acres in total) outside of the Park are on Custer Gallatin lands (Montana, 2013). As an SCC for which the Forest Service likely does not have the capability to maintain a viable planning area population, the Forest has an obligation to maintain or restore ecological conditions on the Forest that contribute to maintaining a viable population of bison within their range (36 CFR 219.9(b)(2)(ii)). Facilitating dispersal throughout the tolerance areas is the necessary ecological condition that the Forest should provide to contribute to bison viability.

As an IBMP partner, the Forest's principle role in implementing that plan is to provide habitat for bison on Forest Service lands (USDA et al., 2000). Furthermore, restoring bison to public lands such as the Custer Gallatin will maximize public access to and benefits from, bison on the landscape.

Though Yellowstone bison now have access to ~380,000 acres of land outside the Park, they are still only using a small fraction of this area. This severely constrained distribution is not only a viability concern for the population and the species as a whole, as mentioned above, but it also further perpetuates the significant management issues surrounding this population (i.e. dependence on the unacceptable practice of shipping bison to slaughter, unsafe and inhumane hunting in overcrowded small patches of land, etc.). While we realize constraints on their current distribution are due in part to current and past management actions and hunting, there is much more the forest can do, from a habitat perspective, to help facilitate dispersal and use throughout current tolerance areas. Certainly, range expansion within current tolerance zones is acceptable and should be encouraged given the expansion was made considering social tolerance issues and the low potential for conflict in this area. The Forest should prioritize providing for significant suitable habitat for bison throughout current tolerance areas as a critical and essential piece to improving the future of bison Yellowstone management *and* contributing to the restoration of species viability.

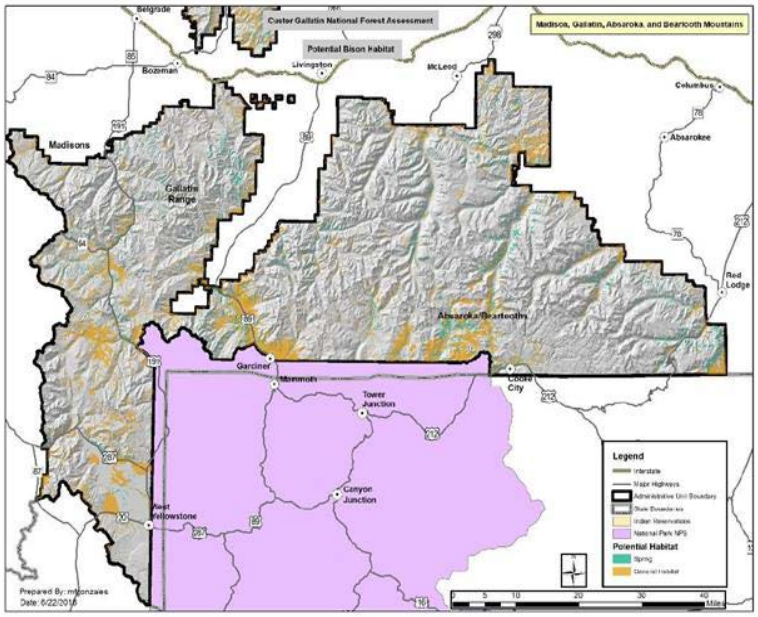

Figure 3. Figure 18 from the Terrestrial Wildlife Report showing potential bison habitat in the Madison, Gallatin, Absaroka, and Beartooth analysis area.

As stated, "The key role of Custer Gallatin National Forest relative to bison is to provide and improve suitable habitat" (Draft Terrestrial Wildlife Report of the Forest Plan Revision Assessment, page 134). Thus, forest plan components must be developed to manage for bison habitat on Forest lands and encourage habitat restoration projects aimed toward improving habitat for bison in appropriate areas. For example, thinning, prescribed burns, meadow and aspen restoration, restoration of native grass species and fertilization can enhance forage production in lodgepole pine stands (Lindgren and Sullivan, 2014) that predominate over much of the lower elevation Forest lands west of the Park. Such prescriptions could also likely address other key wildlife species needs, so long as such activities take careful consideration of the effects and potential impacts to other species. While plains bison are known to use a variety of habitats including forested areas, they are primarily grazers and therefore thrive in open grasslands and meadow complexes. Suitable (general and winter) habitat for bison exists in a patchwork of areas throughout the Forest, including in the new western tolerance area. However, as shown in Figure 18 from the Terrestrial Wildlife Report (see Figure 3 above), there is a lack of contiguous suitable

habitat providing effective corridor areas for bison to migrate and disperse farther out on the landscape and in to places such as the Taylor Fork and Upper Gallatin. The Forest should identify and manage for corridor/migration route areas for bison migrating from the Park to the Forest to facilitate dispersal throughout new and existing tolerance areas. Specifically, routes to the Taylor Fork and Upper Gallatin tolerance area should be identified in the forest plan, and habitat improvement projects implemented to provide a contiguous pathway of suitable habitat to facilitate the restoration of native bison to this area.

The following management recommendations should be incorporated into specific plan components, including Desired Conditions, Guidelines, Goals, and Standards, as part of the Forest Plan Revision Process:

- The forest plan should aim to improve utilization of expanded bison habitat, especially in the new west side tolerance area. This includes working with the Park Service and MFWP to identify areas outside the Park that could serve as suitable winter and year-round habitat (taking into consideration private lands and inholdings) as well as identify the most likely migration corridors for bison to reach these areas from the Park.

- The forest plan should direct the Forest to work closely with the Park, MFWP, and other IBMP partner agencies to assess options for how to effectively restore bison to suitable habitat areas throughout tolerance zones, and establish objectives to implement plan components to support such restoration.

- The forest plan should commit to and prioritize (through plan components and other plan content) improving and maintaining potential habitat and corridor areas for bison through habitat improvement projects including: thinning, prescribed burns, meadow and aspen restoration, and restoration of native grass species and fertilization to enhance forage production.

- The forest plan should encourage volunteer grazing allotment retirement, acquisition of private lands/conservation easement opportunities as those opportunities arise, and work with other jurisdictions and agencies to facilitate safe highway crossings for bison (and other wildlife).

While we appreciate the following plan components offered in the proposed action, we believe the Forest has an obligation to do more in terms of recognizing and prioritizing the conservation and restoration of bison as a native, at-risk wildlife species. The Forest can sufficiently meet their obligation to provide habitat and necessary ecological conditions for bison through the adoption of additional plan components.

Specific Plan Components related to bison management in the Proposed Action.

Desired Conditions (FW-DC-WLBI)

> 01 Native bison have access to forage, security and movement corridors to facilitate distribution of the species to suitable habitats within state-approved tolerance zones.
>
> 02 Educational materials, including signage at trailheads and campgrounds where bison may occur, are available to help forest users understand bison behavior and avoid conflicts.

We support the above Desired Conditions and thank the Forest for their inclusion. However, we recommend the forest include an additional desired condition to "provide suitable habitat to support bison as a native wildlife species on forest lands, to promote migratory behavior and further expansion throughout tolerance areas and contribute to the conservation of the species as a whole."

Goal (FW-GO-WLBI)

> 01 The Forest Service engages with state, Federal and Tribal partners to expand the science of bison ecology, improve social tolerance for the species on public land, and cooperatively develop adaptive strategies to manage bison and their habitats to facilitate natural movement of bison into suitable habitats within state-approved bison tolerance zones.

We support the above Goal. However, we recommend the addition of a goal for the Forest Service to work with state, Federal and Tribal partners to identify suitable habitat and corridor areas for bison to use throughout current tolerance zones.

Guidelines (FW-GDL-WLBI)

> 01 Within bison tolerance zones, vegetation management projects that could improve bison habitat near residential or other high human use areas should be designed to minimize potential bison-human conflicts.
>
> 02 Except to minimize bison human conflict, management actions should not limit bison expansion into unoccupied habitat within state-delineated tolerance zones.

We support the above guidelines, especially FW-GDL-WLBI-02. However, the Forest should also include a guideline that states, "Vegetation management projects aimed to improve and maintain existing bison habitat and potential corridor areas, will be implemented to encourage bison expansion throughout current tolerance zones."

CONCLUSION

The Forest Service is a critical leader in the collective effort to conserve bison and other at-risk wildlife. As partners committed to conservation of bison and the Custer Gallatin, we look forward to working with the Forest to restore ecological conditions with the likelihood that bison will persist and thrive on forest lands long into the future. To accomplish this goal, the Forest Service needs to acknowledge concerns over bison viability, and reconsider the SCC determination. As evidenced above, the risk of plan area extirpation is supported by the science. The Forest should include bison as a SCC and use the forest plan to improve limited distribution through habitat improvement projects, facilitating safe highway crossings for bison (and other wildlife), and pursuing volunteer allotment buyouts and acquisition of private lands/conservation easement opportunities as those opportunities arise.

Sincerely,

Chamois Andersen, Senior Representative of Rockies and Plains Program
Defenders of Wildlife
720-372-4962
candersen@defenders.org

Shana Drimal, Wildlife Program Associate
Greater Yellowstone Coalition
406-586-1593
sdrimal@greateryellowstone.org

Stephanie Adams, Yellowstone Program Manager
National Parks Conservation Association
406-224-8661
SAdams@npca.org

CC
Timory Peel
Bev Dixon

LITERATURE CITED

Bailey, J.A., 2013. Rewilding an icon. Helena, MT. Sweetgrass Books. 238 pp.

Custer Gallatin National Forest, Final Terrestrial Wildlife Report, (Feb. 16, 2017).

Dratch, P. A. and Gogan, P. J. P., 2010. Bison Conservation Initiative: Bison Conservation Genetics Workshop: report and recommendations. Natural Resource Report NPS/NRPC/BRMD/NRR-2010/257. National Park Service, Fort Collins, Colorado.

Freese, C.H., Aune, K.E., Boyd, D.P., Derr, J.N., Forrest, S.C., Gates, C.C., Gogan, P.J., Grassel, S.M., Halbert, N.D., Kunkel, K., and Redford, K.H., 2007. Second chance for the plains bison. Biological Conservation 136. 175-184.

Gates, CC & K Aune, 2008. Bison bison. The IUCN Red List of Threatened Species 2008: e.T2815A9485062. http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T2815A9485062.en. Downloaded on 12 January 2016.

Gates, C.C., Freese, C.H, Gogan, P.J., and Kotzman, M., 2010. American bison: status survey and conservation guidelines 2010. IUCN. 154 pp.

Geremia, C., Rick Wallen & P.J. White, Population Dynamics and Adaptive Management of Yellowstone Bison, (Yellowstone National Park, National Park Service, Aug. 5, 2014).

Geremia, C., Wallen, R., White, P.J., 2017. Status Report on the Yellowstone Bison Population, September 2017. Yellowstone National Park, National Park Service. 14 pp.

Gray, S., Andersen, C. 2009. Assessing the Future of Wyoming's Water Resources: Adding Climate Change to the Equation. William D. Ruckelshaus Institute of Environment and Natural Resources. University of Wyoming, Laramie, WY. 28 pp.

Interagency Bison Management Plan, 2000.

International Union of Conservation Nature, 2017. The IUCN Red List of Threatened Species. http://www.iucnredlist.org/ (Accessed: February 20, 2018).

Knapp, A.K., Blair, J.M. Briggs, J.M., Collins, S.L., Hartnett, D.C., Johnson, L.C., Towne, E.G., 1999. The keystone role of bison in North American tallgrass prairie. BioScience 49: 39-50.

Lindgren, P.M.F. and Sullivan, T.P., 2014. Response of forage yield and quality to thinning and fertilization of young forests: implications for silvopasture management. Canadian Journal of Forest

Research 44(4): 281-289. http://www.nrcresearchpress.com/doi/abs/10.1139/cjfr-2013-0248?journalCode=cjfr#.Vx_NXtUrIwF
Montana. 2013. Joint Draft Environmental Assessment: Year Round Habitat for Yellowstone Bison. Montana Fish, Wildlife and Parks, 1420 East Sixth Avenue, Helena, MT 59620.

Montana Fish, Wildlife, and Parks (FWP), 2015. Draft Environmental Impact Statement Bison Conservation and Management in Montana. Helena, MT.
NatureServe. 2016. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia.
http://explorer.natureserve.org/servlet/NatureServe?searchName=Bison+bison (Accessed: February 20, 2017).

Montana's State Wildlife Action Plan, 2015. Montana Fish, Wildlife & Parks, 1420 East Sixth Avenue, Helena, MT 59620. 441 pp.
http://fwp.mt.gov/fishAndWildlife/conservationInAction/actionPlan.html (Accessed: February 20, 2018).

Pérez-Figueroa, A., R. L. Wallen, T. Antao, J. A. Coombs, M. K. Schwartz, P.J. White, G. Luikart, 2012. Conserving genomic variability in large mammals: Effect of population fluctuations and variance in male reproductive success on variability in Yellowstone bison. Biological Conservation 150: 159–166.

Plumb, G.E., P.J. White, Michael B. Coughenour & Rick L. Wallen, Carrying capacity, migration, and dispersal in Yellowstone bison, 2009. Biological Conservation 2377-2387.

Sanderson, E. W., Redford, K. H., Weber, B., Aune, K., Baldes, D., Berger, J., Carter, D., Curtin, C., Derr, J., Dobrott, S., Fearn, E., Fleener, C., Forrest, S., Gerlach, C., Gates, C. C. Gross, J. E., Gogan, P., Grassel, S., Hilty, J. A., Jensen, M., Kunkel, K., Lammers, D., List, R., Minkowski, K., Olson, T., Pague, C., Robertson, P. B. and Stephenson, B., 2008. The ecological future of the North American bison: Conceiving long-term, largescale conservation of wildlife. Conservation Biology 22: 252-266.

U.S. Department of Agriculture, U.S. Forest Service, 2017. Final Assessment Report of Ecological of Ecological, Social and Economic Considerations on the Custer Gallatin National Forest. 136 pp.

U.S. Department of Interior, 2000. Record of decision for final environmental impact statement and bison management plan for the State of Montana and Yellowstone National Park. Washington, D.C. Retrieved from:
http://www.ibmp.info/Library/1%20%20IBMP%20EIS%20Record%20of%20Decision.pdf
Yellowstone National Park. 2017. Bison. https://www.nps.gov/yell/learn/nature/bison.htm (Accessed: November 20, 2017).