

**Comments in support of strengthening and adopting standards for Alternative D,  
the environmentally preferred decision in the Custer Gallatin National Forest plan, and  
listing American bison as a species of conservation concern in Region 1.  
(Draft May 20, 2019)**

**List American Bison as a Species of Conservation Concern.**

The best available scientific information supports the Regional Forester listing American bison as a species of conservation concern in Region 1.

Region 1's Regional Forester must provide a reasoned response to the evidence presented in public comment in support of listing American bison as a species of conservation concern.

**Strengthen and adopt enforceable standards for Alternative D.**

The best available scientific information supports strengthening alternative D with strong enforceable standards for American bison, bighorn sheep, and threatened grizzly bears.

Conserving American bison viability and diversity should be a forest wide standard.

Freedom for American bison to roam National Forest habitat should be a forest wide standard.

Restoring connectivity to habitat for American bison should be a forest wide standard.

To restore connectivity, and conserve the viability and diversity of American bison's genetically distinct subpopulations, the Custer Gallatin needs to adopt a standard to close and not permit cattle grazing allotments within American bison range.

To restore connectivity, and conserve the viability and diversity of native bighorn sheep populations, the Custer Gallatin needs to adopt a standard to not permit domestic sheep grazing within bighorn sheep range.

The best available scientific information supports including enforceable forest wide standards to protect key linkage areas, connectivity to habitat, and food security for threatened grizzly bears.

The Custer Gallatin must adopt a forest wide standard for all grazing permits requiring "let-down" fencing and remove barriers that impede migration of native species.

Restore more wetlands, creek banks, and pond edges through strong standards and more yearly projects to benefit American bison and native species diversity.

The Custer Gallatin has a duty to fulfill its' responsibilities and trust obligations safeguarding treaty rights, sacred species, sacred sites, and traditional cultural places of significance to aboriginal people.

**In its' direction for American bison, the Custer Gallatin must rely upon the best available scientific information.**

The State of Montana's arbitrarily defined "tolerance zones" for American bison on the National Forest are not based on the best available scientific information.

The Interagency Bison Management Plan is not based on the best available scientific information.

The Interagency Bison Management Plan is a flawed plan operating on an outdated Environmental Impact Statement (the 15-year life of the plan analysis expired in 2015).

The 15-year life of the plan analysis could not and did not foresee impacts to the bison population and the ecosystem beyond this timeframe. *See e.g.*, U.S. Dept of the Interior & U.S. Dept. of Agriculture Vol. 1 (Aug. 2000) (enter “life of the plan” into Adobe Reader’s find feature).

Indeed, after providing notice of its’ intent to prepare a new Environmental Impact Statement, the State of Montana and Yellowstone National Park have failed to produce any new decision based on an updated scientific analysis. 80 Fed. Reg. 13603 (March 16, 2015).

In theory, the Interagency Bison Management Plan is an adaptive one based on science. In practice, it is not.

Manager’s decisions lack “accountability and transparency,” and more often resemble “trial and error or crisis management, rather than adaptive management.” In a three tiered-step plan, managers lack “linkages” to get to the next steps, and have “lost opportunities to collect data” to resolve “important uncertainties” in the absence of a scientific monitoring plan. “Park Service, APHIS, and Montana Department of Livestock officials also told us that they are not testing any hypotheses or the assumptions on which the plan is based.” These flaws have impaired decisions by managers who do not share defined and measurable objectives. “Meanwhile, the federal government continues to spend millions of dollars on uncoordinated management and research efforts, with no means to ensure that these efforts are focused on a common outcome that could help resolve the controversies.” Government Accountability Office 2008 at 24, 28, 33.

The flaws in “adaptive management” continue a decade after the Government Accountability Office issued its’ report to the U.S. Congress, as managers “no longer build their meetings, interactions, and decisions around their AM [Annual Management] Plan; no longer measure their performance against the metrics put forth in their AM Plan (including no longer building their Annual Report on measuring their performance against metrics set forth in the AM Plan); no longer rigorously follow the Partner responsibility matrix declared under each Management Action described in the AM Plan (and also in the Partner Protocols); and no longer use adaptive changes to their AM Plan to drive changes in their Winter Ops Plan.” Bischke 2017 entire.

In spite of significant changes in federal brucellosis rules benefitting cattle ranchers in the tri-state region, managers have failed to account for the changed circumstances favoring natural regulation of bison in the wild. *See e.g.*, Montana Dept. of Livestock 2013 (approving maintaining an ‘actionable’ zone to haze bison pre-emptively from “breaching the tolerance zone”); Yellowstone National Park 2011 (permitting the taking of 104 bison for USDA APHIS’s population control study of GonaCon, a chemical sterilant); National Park Service 2015 at 13603–13604 (5 of 6 proposed alternatives would severely curtail bison range and or abundance in the ecosystem, intensively manage bison rather than cattle, and continue the practice of selecting against disease – and disease resistance – in the bison genome through culling, vaccination, and sterilization).

It is improper for the Custer Gallatin to adopt the State’s “management” and “tolerance zones” as a policy standard on the National Forest.

State law, Mont. Code Ann. § 81-2-120 and the governor-approved plan it calls for, is a stressor and threat to American bison and their habitat throughout the life of the next forest plan.

“Management actions” to restrict or impede natural migrations are in conflict with National Forest planning rule requirements to use the best available scientific information, restore habitat connectivity, and provide for the conservation and persistence of American bison on the National Forest.

Do not make the erroneous assumption that the State of Montana will initiate – or even consider over the life of the next forest plan – an adaptive change that would benefit American bison on National Forest habitat.

It is just as plausible that with a change in the Governor’s office or the Montana legislature, the State’s arbitrarily defined “tolerance zones” would result in habitat loss for American bison on the National Forest.

The Custer Gallatin must recognize the best available scientific information of genetically distinct subpopulations of American bison in the Northern and Central Interior herds. Halbert et al. 2012 entire.

The Central herd or subpopulation is under threat and being driven down under the stressors of the Interagency Bison Management Plan, the governor-approved plan Mont Code Ann. § 81-2-120 calls for.

According to National Park Service biologists, the number of Central herd buffalo counted declined from 3,531 in 2006 to 847 in 2017. White et al. 2011 at 1329; Geremia et al. 2017 at 1.

The unexplained loss of a significant portion of the Central herd buffalo in a period of time when more habitat was available on the National Forest in State “tolerance zones,” is a grave cause of concern.

Through its’ voluntary participation in the Interagency Bison Management Plan, the Custer Gallatin has adopted arbitrarily defined State “tolerance zones” that destroy American bison naturally migrating into the dead zone (Zone 3) on the National Forest.

How much National Forest habitat are American bison excluded from in Zone 3?

How many migration corridors for American bison are disrupted in Zone 3?

How does the Custer Gallatin reconcile adopting Zone 3 as a standard with the National Forest planning rule requirement to maintain or restore connectivity?

These questions need to be squarely addressed for public analysis by the Custer Gallatin.

Excluding American bison from a significant portion of National Forest habitat and disrupting migration corridors is an ongoing threat to the viability and diversity of a truly unique population of migratory American bison remaining in the wild.

The National Forest planning rule is clear: the Custer Gallatin must rely upon and use the best available scientific information in its’ direction for American bison.

### **List bighorn sheep as a Species of Conservation Concern.**

The best available scientific information supports the Regional Forester listing bighorn sheep as a species of conservation concern in Region 1.

Domestic sheep are a source of fatal disease infection for native bighorn sheep populations.

To restore connectivity, and conserve the viability and diversity of native bighorn sheep populations, the Custer Gallatin needs to adopt a standard to not permit domestic sheep grazing within bighorn sheep range.

### **Adopt forest wide standards enforcing the protection of key linkage areas, connectivity to habitat, and food security for threatened grizzly bears.**

The best available scientific information supports including enforceable forest wide standards to protect key linkage areas, connectivity to habitat, and food security for threatened grizzly bears.

Genetic isolation was one factor in the listing of the grizzly bear in the conterminous 48 States as threatened in 1975. 40 Fed. Reg. 31734 (July 28, 1975).

In 1995, a U.S. District Court found the U.S. Fish & Wildlife Service failed to incorporate “objective, measurable criteria addressing genetic isolation” in its’ plan to recover the grizzly bear. *Fund for Animals v. Babbitt*, 903 F. Supp. 96, 113 (D.D.C. 1995).

In 2018, a U.S. District Court found the U.S. Fish & Wildlife Service “failed to logically support its conclusion that the current Greater Yellowstone population is not threatened by its isolation.” *Crow Indian Tribe v. U.S.A.*, 343 F. Supp. 3d 999, 1019 (D. Mont. 2018).

Habitat continuity and linkage between populations in the grizzly’s range is key to the bear’s recovery. Craighead et al. 1995 at 486–488.

High rates of mortality, isolation, and lack of connectivity is a factor that continues to threaten grizzly bears in the conterminous 48 States. “Excessive mortality and isolation played a primary role in the extirpation of approximately 31 small isolated grizzly bear populations between 1922 and 1970 within the conterminous USA.” Proctor et al. 2005 at 2415 citing Mattson & Merrill 2002.

There is no regulatory mechanism in place to address the threat of “continued isolation” and connectivity of habitat between grizzly bear populations in the conterminous 48 States. *Crow Indian Tribe* at 1021.

The grizzly bear population in Yellowstone has lived in isolation for more than a century. Miller & Waits 2003 at 4334.

Substantial barriers remain to securing connectivity between grizzly bear populations in the conterminous 48 States.

The Endangered Species Act empowers the Custer Gallatin with a national mandate to recover threatened and endangered species “whatever the cost.” *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 184 (1978). The national mandate must be translated into enforceable forest wide standards protecting key linkage areas, connectivity, and food security for threatened grizzly bears.

## **Reintroduce fire to restore American bison habitat and connectivity to habitat.**

In its' direction for American bison and connectivity to habitat, the Custer Gallatin should develop and fund a program to reintroduce fire.

According to a U.S. Forest Service Fire Effects Information System study, “[f]ire is important in creating and maintaining American bison habitat. Fire regenerates grasslands and enhances production, availability and palatability of many American bison forage species.” Tesky 1995.

Tesky's fire study found:

- Forest fires may also play a role in maintaining sedge-grasslands, important winter habitat for bison.
- Intense bison grazing of recently burned habitat may reduce fuel loads and function as firebreaks.
- The slaughter and near extinction of bison “may have shortened fire return intervals and increased fire severity during the early settlement period.”
- Bison grazing and fire patterns could provide a valuable tool for naturally managing northern mixed-grass prairie.

Euro-American extirpation of bison, a keystone species, “may have had cascading effects on grassland ecosystem function and the diversity of native plant and animal species.” U.S. Forest Service Warren 2011.

Given the ecological role of American bison and fire, and bison's keystone contributions to plant and animal community diversity, the Custer Gallatin should initiate a habitat restoration program and provide funding to recruit scientists and biologists with aboriginal knowledge of American bison and fire.

American bison habitat restoration projects should be agency-funded and done in collaboration with scientists and biologists from American Indian Tribes with ancestral ties and treaty rights to the National Forest.

Fire and fuels management funding should be included and designated for the recruitment of scientists and biologists from American Indian Tribes with ancestral ties and or treaty rights to the National Forest.

Given the range of American Indian Nation ties to and knowledge of the aboriginal territories on the Custer Gallatin, and each Treaty and public trust responsibility the National Forest is legally mandated to fulfill, the Custer Gallatin has the authority to build relationships to support such an endeavor.

Given the National Forest is governed by separate Treaties reserving rights for American Indian Tribes, aboriginal leaders are in the best position to provide direction, guidance, and involvement to conserve American bison diversity, restore the migratory species' habitat and connectivity to habitat on the National Forest.

Buffalo Field Campaign encourages the involvement and leadership of American Indian Tribes in cooperatively developing a National Forest funded program to expand the science of American bison ecology and fire, and thereby restore habitat for plant and animal communities and the keystone ecological role of a native species.

Exclude logging trees as a habitat restoration or “improvement” project for American bison.

Exclude spraying toxic compounds as a habitat restoration or “improvement” project for American bison.

The standard for habitat restoration projects on the Custer Gallatin is best measured based on the acres of habitat and connectivity to habitat American bison use.

The number of “enhancement or habitat improvement projects” is not in itself a reliable indicator of measuring benefits to American bison.

Acres of habitat used and the area of expanded habitat used is a better indicator to measure and monitor progress for a year-round, self-sustaining population of American bison with a genetically distinct subpopulation structure.

If the Custer Gallatin is correct that 292,000 acres of American bison habitat is available (on one landscape, and excluding bison from four other landscapes), the direction must be on fire ecology projects that enhance natural migration, access and connectivity to habitat across the National Forest.

Reintroducing fire would help restore the ecological integrity of fire dependent ecosystems disrupted by fire suppression. Restoring fire in American bison range will aid restoration of grassland function, and recover the diversity of animal and plant communities lost due to suppressing fires.

The desired condition needs to move away from the reactionary mode of fire suppression and the attendant loss of movement corridors, and the loss in quality and quantity of forage that influences migration and diversity of plant and animal communities.

**The Custer Gallatin must close grazing allotments to benefit American bison, bighorn sheep, and threatened grizzly bears.**

Permitting cattle grazing allotments in native bison range is in conflict with the desired condition of a year-round, self-sustaining population of American bison on the National Forest.

The presence of cattle is also a barrier for American bison to year-round access and connectivity to National Forest habitat.

To restore connectivity, and conserve the viability and diversity of American bison’s genetically distinct subpopulations, the Custer Gallatin needs to adopt a standard to close and not permit cattle grazing allotments within American bison range.

“[L]ivestock grazing on public lands continues to be a leading source of conflicts between bears and humans.” Yellowstone Grizzly Coordinating Committee Habitat Modeling Team 2010 at 72 (citation omitted).

In a six-year period, 62 of 260 human-caused Yellowstone grizzly bears deaths involved management removals due to livestock depredation. Haroldson & Frey 2011-2017. Three additional cubs were also lost due to grizzly bear-livestock conflicts. On National Forests, 30 of 62 human-caused grizzly bear deaths were due to conflicts with livestock. *Id.*

Displacing native bison with domestic livestock limits the “biological suitable” habitat of grizzly bears and the “potential for a self-sustaining population of grizzly bears” in the Yellowstone ecosystem. U.S. Fish & Wildlife Service 82 Fed. Reg. 30502, 30510 (June 30, 2017).

Traditional food sources such as bison and elk have been reduced and replaced with domestic livestock such as cattle, sheep, chickens, goats, pigs, and bee hives, which can become anthropogenic sources of prey for grizzly bears. *Id.*

American bison are an important grizzly bear food. Mattson 2017 at 17. Both native species would benefit from removing cattle to prevent depredations resulting in dead bears and conflicts with the State of Montana resulting in dead bison.

Not permitting domestic sheep grazing would prevent the introduction of deadly and contagious diseases to American bison and bighorn sheep.

The Custer Gallatin must adopt a forest wide standard for all grazing permits requiring “let-down” fencing and remove barriers that impede migration of native species.

The Custer Gallatin must withdraw its’ permits, and remove barriers to habitat and connectivity including government traps, fencing schemes in migration corridors designed to impede natural migrations, cattle allotments, and arbitrarily defined State “tolerance zones” which the Custer Gallatin has adopted as a standard through its’ voluntary participation in the Interagency Bison Management Plan a long time ago.

Vacated grazing allotments must be prioritized for closure and fencing removed to enhance wildlife habitat, connectivity to habitat, and water quality.

Closing cattle grazing allotments within American bison range should be counted as an ecological enhancement or habitat restoration project for the native species.

Closure includes removing the fencing and the domesticated animals which reduce conflicts with the State of Montana and restore connectivity of habitat for American bison across the National Forest.

### **Wetlands and riparian habitat must be managed with stronger standards.**

Restore more wetlands, creek banks, pond edges, and riparian habitat through strong standards and more yearly projects to benefit American bison and native species diversity.

We strongly favor stronger, more rigorous protections and projects year-round to restore the ecological integrity of watersheds across the Custer Gallatin.

### **Treaty rights, sacred species, sacred sites, and traditional cultural places must be given the utmost care and strongest protection.**

Buffalo Field Campaign’s late co-founder Rosalie Little Thunder was a leader in protecting the buffalo, a sacred species.

Ludlow Cave in the North Cave Hills is revered as a sacred place from which the buffalo first emerged. Traditional cultural places and sacred sites must be given the utmost care, respect, and protection.

The Custer Gallatin National Forest is within the aboriginal territories of the:

Great Sioux Nation

Fort Peck Assiniboine & Sioux Tribes

Northern Cheyenne Tribe

Crow Tribe of Indians

Blackfeet Nation

Piikani Nation

Eastern Shoshoni Tribe

Northern Arapaho Tribe

Shoshone–Bannock Tribes

Nez Perce Tribe

Confederated Salish & Kootenai Tribes

Confederated Tribes of the Umatilla Indian Reservation

Confederated Tribes & Bands of the Yakama Nation

MHA Nation Mandan, Hidatsa, & Arikara – Three Affiliated Tribes

Standing Rock Sioux Tribe

Cheyenne River Sioux Tribe

Lower Brule Sioux Tribe

Rosebud Sioux Tribe

Oglala Sioux Tribe of the Pine Ridge Indian Reservation

Crow Creek Sioux Tribe

We concur with the respective Nations who have let it be known the Custer Gallatin must fulfill its' responsibilities to safeguard treaty rights, sacred species, sacred sites, and traditional cultural places of significance to aboriginal people.

## Sources

An electronic copy of source material is submitted as part of Buffalo Field Campaign's comments to the Custer Gallatin National Forest Supervisor Mary C. Erickson and Region 1's Regional Forester Leanne M. Marten.

Citation is by author, title, volume, publication, initial page number, publisher and date.

Scott Bischke, *Concepts for Increasing IBMP Effectiveness*, (Aug. 14, 2017).

John J. Craighead et al., *The Grizzly Bears of Yellowstone Their Ecology in the Yellowstone Ecosystem, 1959-1992* (ISLAND PRESS 1995).

*Crow Indian Tribe v. United States of America*, 343 F. Supp. 3d 999 (D. Mont. 2018).

*Fund for Animals v. Babbitt*, 903 F. Supp. 96 (D.D.C. 1995).

Chris Geremia et al., *Status Report on the Yellowstone Bison Population*, (Sept. 2017).

Natalie D. Halbert et al., *Genetic Population Substructure in Bison at Yellowstone National Park*, *Journal of Heredity*: 1–11 (Advance Access published Feb. 8, 2012).

Mark A. Haroldson & Kevin L. Frey, *Documented Grizzly Bear Mortalities in the GYE and Estimated Percent Mortality for the Demographic Monitoring Area*, at 30-36, (Frank T. van Manen, M. A. Haroldson & B. E. Karabensh eds., *Yellowstone Grizzly Bear Investigations 2016: Annual Report of the Interagency Grizzly Bear Study Team*, U.S. Geological Survey 2017).

Mark A. Haroldson & Kevin L. Frey, *Documented Grizzly Bear Mortalities in the GYE and Estimated Percent Mortality for the Demographic Monitoring Area*, at 29-37, (F. T. van Manen, M. A. Haroldson & B. E. Karabensh eds., *Yellowstone Grizzly Bear Investigations 2015: Annual Report of the Interagency Grizzly Bear Study Team*, U.S. Geological Survey 2016).

Mark A. Haroldson & Kevin Frey, *Estimating Sustainability of Annual Grizzly Bear Mortalities*, at 26-30, (F. T. van Manen, M. A. Haroldson & S.C. Soileau eds., *Yellowstone Grizzly Bear Investigations 2014: Annual Report of the Interagency Grizzly Bear Study Team*, U.S. Geological Survey 2015).

Mark A. Haroldson & Kevin Frey, *Estimating Sustainability of Annual Grizzly Bear Mortalities*, at 27-31, (F. T. van Manen, M. A. Haroldson, K. West & S.C. Soileau eds., *Yellowstone Grizzly Bear Investigations 2013: Annual Report of the Interagency Grizzly Bear Study Team*, U.S. Geological Survey 2014).

Mark A. Haroldson & Kevin Frey, *Estimating Sustainability of Annual Grizzly Bear Mortalities*, at 24-30, (F. T. van Manen, M. A. Haroldson & K. West eds., *Yellowstone Grizzly Bear Investigations 2012: Annual Report of the Interagency Grizzly Bear Study Team*, U.S. Geological Survey 2013).

Mark A. Haroldson & Kevin Frey, *Estimating Sustainability of Annual Grizzly Bear Mortalities*, at 23-28, (F. T. van Manen, M. A. Haroldson & K. West eds., *Yellowstone Grizzly Bear Investigations 2011: Annual Report of the Interagency Grizzly Bear Study Team*, U.S. Geological Survey 2012).

Mark A. Haroldson & Kevin Frey, *Estimating Sustainability of Annual Grizzly Bear Mortalities*, at 21-26, (C.C. Schwartz, M. A. Haroldson & K. West eds., *Yellowstone Grizzly Bear Investigations 2010: Annual Report of the Interagency Grizzly Bear Study Team*, U.S. Geological Survey 2011).

David J. Mattson, *Grizzly Bears & Ungulates in the Yellowstone Ecosystem*, 5 *Natural History of Grizzly Bears* 1-20 (2017).

Craig R. Miller & Lisette P. Waits, *The History of Effective Population Size and Genetic Diversity in the Yellowstone Grizzly (*Ursus arctos*): Implications for Conservation*, 100(7) *PNAS* 4334 (Apr. 1, 2003).

Mont. Code Ann. § 81-2-120 (2017).

Montana Dept. of Livestock, *Recommended Adjustment to the Adaptive Management Plan for the Interagency Bison Management Plan (IBMP)*, (June 3, 2013).

Michael F. Proctor et al., *Genetic Analysis Reveals Demographic Fragmentation of Grizzly Bears Yielding Vulnerably Small Populations*, 272 *Proceedings of the Royal Society B* 2409 (Sept. 20, 2005).

Public Broadcasting Service, *The Buffalo War* (Matthew Testa, bullfrog films 2001)  
<http://www.pbs.org/buffalowar/war.html>.

Julie L. Tesky, *Bos bison*. In: *Fire Effects Information System*, (U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, 1995)  
<http://www.fs.fed.us/database/feis/animals/mammal/bobi/all.html>.

*Tennessee Valley Authority v. Hill*, 437 U.S. 153 (1978).

U.S. Department of the Interior and U.S. Department of Agriculture, *Final Environmental Impact Statement for the Interagency Bison Management Plan for the State of Montana and Yellowstone National Park*, Vol. 1-3 (Aug. 2000).

U.S. Fish & Wildlife Service, *Amendment Listing the Grizzly Bear of the 48 Conterminous States as a Threatened Species*, 40 Fed. Reg. 31734 (July 28, 1975).

U.S. Fish & Wildlife Service, *Removing the Greater Yellowstone Ecosystem Population of Grizzly Bears from the Federal List of Endangered and Threatened Wildlife*, 82 Fed. Reg. 30502 (June 30, 2017).

U.S. Forest Service, Region 2, Regional TES Species Program Leader Nancy Warren, *American Bison R2 Individual Species Recommendations*, (Apr. 1, 2011).

U.S. Government Accountability Office, *YELLOWSTONE BISON Interagency Plan and Agencies' Management Need Improvement to Better Address Bison-Cattle Brucellosis Controversy*, (Report to Congressional Requesters GAO-08-291) (Mar. 2008).

U.S. National Park Service, *Environmental Impact Statement for a Management Plan for Yellowstone-Area Bison*, 80 Fed. Reg. 13603 (Mar. 16, 2015).

P.J. White et al., *Management of Yellowstone bison and brucellosis transmission risk – Implications for conservation and restoration*, 144 *Biological Conservation* 1322 (2011).

Yellowstone Grizzly Coordinating Committee Habitat Modeling Team, *Grizzly Bear Habitat Monitoring Report, Greater Yellowstone Area National Forests and National Parks*, 72-92 Appendix E, (July 2010) (S. Podruzny, K. Gunther & T. Wyman eds., *Yellowstone Grizzly Bear Investigations 2009: Annual Report of the Interagency Grizzly Bear Study Team*, U.S. Geological Survey 2010).

Yellowstone National Park, *USDA APHIS Bison Research and Collection Permit GonaCon study*, (May 12, 2011).