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Sedgeley, Ryan, C., Bison Range Expansion Into the Paradise Valley Through Community Driven Collaborative Governance, Plan B Thesis, Master of Arts in Environment and Natural Resources, Haub School for Environment and Natural Resources, May, 2021.

Yellowstone is the heartbeat of North America. With each beat it pulses life from the Earth down its gentle plateau slopes, through its rivers, and over its mountains into the lands that stretch from sea to sea to sea. This reservoir of life, water, and culture pulses through the Greater Yellowstone Ecosystem. One of those pulses of life is the American Bison (*Bos bison*). This prehistoric animal, which once dominated this entire continent, is re-emerging from near extinction with vigor; spreading beyond the boundaries of the park and beyond the narrow perceptions held in the minds of people about these incredible beings we share our planet with. This paper seeks to examine ways in which local communities can harness the great pulses of life emanating from Yellowstone National Park and thrive in harmony with local ecologies by expanding the bison's range. Specifically, this paper will address how this could be achieved in the Paradise Valley of Montana through a voluntary collaborative governance system. This system would not only allow local communities to harness the abundance of bison though harvest, cottage industry, culture, and tourism, it also holds the possibility of healing old wounds between descendants of settlers and Native American peoples while preserving the values and aesthetics of an open, undeveloped valley.

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Introduction

For over a century wild Yellowstone bison have been the center of a fierce controversy which has forced these wild bison to remain largely restricted to within the boundaries of the park. This highly restricted existence for bison has been justified by concerns from cattle producers over a disease called brucellosis. This disease is also carried by elk in the same area as bison, and unlike bison, the elk infect cattle with the disease.[1] Despite this real risk of disease transmission, elk are left to roam free. This disparate treatment is not justified nor is it logical based on the reasons given by cattle producers or state and federal land management agencies. This disparate treatment between two species that exist in the exact same landscape and carry the exact same disease must be attributed then to something else. That something else is a latent form of racism being perpetrated against Native American people by the descendants of white settlers.

Identifying this deeper source of conflict creates the opportunity to approach this seemingly intractable problem through new and novel means. It also creates the opportunity to begin the process of meaningful reconciliation between Native American people and the descendants of white settlers.

This thesis explores these ideas through the lens of a proposed project that would allow Yellowstone bison to establish a full migratory range by allowing bison to freely move into the Paradise Valley. This proposal resolves the conflict for cattle producers by eliminating cattle from the valley and in their place granting a variety of bison harvest rights that not only would replace income made from current cattle production, but also creates new and potentially more profitable revenue streams for cattle producers all while respecting the values and the relationships that cattle producers have with these lands. This wholistic approach seeks a win-win solution that enhances the lives of nearly all the stakeholders in the valley through increased tourism, creation of bison culture, and protection of valley lands from encroaching vacation home development. It does this through the use of a community driven collaborative management process where management of bison would be governed directly by the stakeholders themselves.

Prior to addressing the project proposal, a geographic orientation, history of bison and bison management, and bison ecology are presented. These sections will provide context for the proposed project to be situated in.

Geographic & Historical Orientation

To understand the complexity of these issues it is important to first have an understanding of the physical place these animals occupy and the history of how humans have lived with and managed bison. This section will situate these issues in terms of place and time.

[1] National Academies of Sciences Engineering, and Medicine, Revisiting Brucellosis in the Greater Yellowstone Area. The National Academies Press, 2 (2002).

Yellowstone National Park

Located primarily in the northwest corner of Wyoming,[2] Yellowstone National Park rises up and dominates the landscape with its large volcanic plateau ringed by stunning and rugged mountain ranges. At approximately 2.2 million acres, the park is situated deep within the Greater Yellowstone Ecosystem (GYE).[3] The GYE is a 34,375 square mile area that encompasses the areas around Yellowstone National Park and south including the Teton Range, Wyoming Range, and the Wind River Range.[4] These areas together create "one of the largest nearly intact temperate ecosystems on Earth."[5] The park is home to an incredible diversity of species, 67 mammal species, 285 bird species, 16 species of fish, 5 species of amphibians, and 6 species of reptiles.[6] Yellowstone is also home to an abundance of plant species, including over 1,000 species of native flowering plants, 186 species of lichens and nine species of conifers.[7]

Along with the incredible abundance of life, Yellowstone is also home to the greatest concentration of geysers in the world with approximately 500 active geysers.[8] Those geysers, along with mud pots, hot springs and fumaroles make up the more than 10,000 hydrothermal features that exist in the park.[9] This abundance of geothermal activity is due to the fact that a large part of Yellowstone is an active volcano.[10] This volcanism has profoundly shaped the area. Aside from the regular eruptions of geysers and seasonal migration of wildlife, parts of the park literally rise and fall due to these volcanic influences underground.[11] This all gives one the impression that the park is alive with even its land breathing and pulsing.

While around 80 percent of the park is forested, there are a handful of valleys that are host to sedges, grasses, forbs and shrubs that are crucial for much of Yellowstone's wildlife.[12] Bison primarily live on these non-forested areas, though they are no stranger to the forest. Of primary importance to bison are the following areas which can been seen on the map below, they are: the Lamar Valley, Mirror Plateau, the Firehole Valley, the Pelican Valley, the and the Madison Valley. These valleys offer the bison food, room to move about, and in the case of the Lamar and Hayden Valleys, places to reproduce during their August rutting season.

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[2] Yellowstone National Park was established when the area was a U.S. Territory. As the states were formed Yellowstone ended up being situated within the borders of three states Wyoming, Montana, and a small sliver of Idaho. This pre-state establishment of the park makes it a unique federal enclave which gives park managers the ability to manage wildlife and other park resources without interference from the states. In addition to this, 27 Native American Tribes are officially associated with Yellowstone National Park. Native Americans have inhabited these lands for 8,000 to 10,000 years.

[3] Yellowstone National Park, Yellowstone Resources and Issues Handbook 2020, 57 (2020) [hereinafter *NPS*].

[4] *Id.*

[5] *Id.*

[6] *Id.* at 1.

[7] *Id.*

[8] *Id.*

[9] *Id.*

[10] *Id.* at 118.

[11] *Id.* at 120.

[12] *Id.* at 151–52.

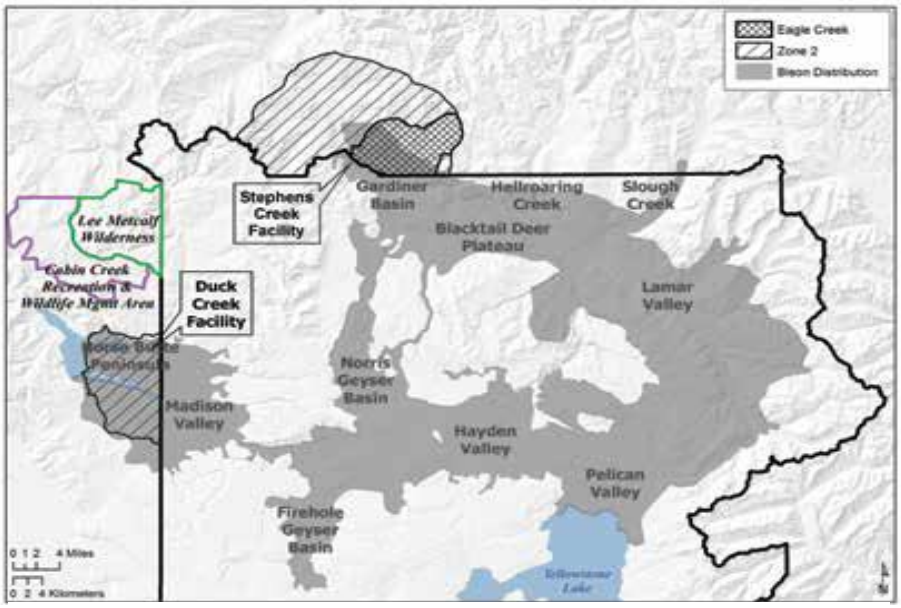

Figure 1: *Important areas for bison in Yellowstone.*

Source: NPS, Yellowstone Bison Conserving an American Icon in Modern Society 53 (P.J. White, Rick L. Wallen & David E. Hallac eds. 2015).

The Lamar Valley, in the northeast part of Yellowstone, has been the center of the bison recovery story. It is here that bison were brought back from the brink of extinction at the Lamar Buffalo Ranch. Today, this long, wide valley remains excellent bison habitat where large numbers of bison can be found.[13] It is these bison which migrate out of Yellowstone National Park to the north into the Gardiner Valley in the winter and early spring.[14]

Four other important landmarks in this northern area are, Beattie Gulch, the Stevens Creek Facility, the Quarantine facility, and the Yankee Jim Canyon Cattle Guard. Beattie Gulch is a spot where bison often cross the boundary from Yellowstone onto the Bridger-Teton National Forest lands. Hunting here has been controversial due to the way the hunt is carried out and for its proximity to people's homes. The Stevens Creek Facility is where bison are taken on round up to be shipped off for slaughter. This, too, has had its share of controversy.[15] The Quarantine Facility just down the valley to the North and is the facility where bison are kept and tested until the bison are known to be brucellosis-free and can then be transferred to other locations around the country including the Fort Peck Indian Reservation. Finally, the Yankee Jim Canyon is a geologically narrow spot between the Gardiner Valley and the Paradise Valley that forms a convenient geologic boundary. North of Yellowstone, it is currently the furthest North

[13] NPS, *supra* note 3, at 193.

[14] NPS, Yellowstone Bison Conserving an American Icon in Modern Society 68 (P.J. White, Rick L. Wallen & David E. Hallac eds. 2015).

[15] Protestors have protested the facility by chaining themselves to cement filled barrels blocking the road into the facility, Legal Monitor Worldwide, *One Yellowstone Bison Protester convicted and punished over Misdemeanor Charges*, (Apr. 7, 2018), Gale General OneFile.

that bison are allowed to migrate. Each year a cattle guard is put in place and permanent fencing is installed to prevent bison from traveling beyond this boundary.

Gardiner Basin

The Gardiner Basin extends from the town of Gardiner, Montana, population 879[16], to Yankee Jim Canyon which is about 18 miles north on Highway 89. This area sits in a rain shadow of the Gallatin Range to the West. The valley is home to the settlement of Gardiner and is the gateway town that serves visitors traveling into the north entrance of Yellowstone National Park.

The Paradise Valley

The Paradise Valley is the larger valley to the north of the Gardiner Basin and it stretches from Yankee Jim Canyon to an area just south of Livingston, Montana where a pair of limestone scarps form a natural gateway to the valley. Flanked on either side of the Paradise Valley are the rugged Beartooth Mountains along the eastern edge and the Gallatin Mountains along the western edge. The Yellowstone River winds its way through the valley providing plentiful fishing, boating, and water for irrigation.

The Paradise Valley is host to two small towns, Pray (population 749[17]) and Emigrant (population 271).[18] There are numerous guest ranches, rental properties, RV parks, a commercial hot spring pool, as well as restaurants, and hotels. The valley is also home to an increasing number of vacation homes.[19] The Paradise Valley has historically been economically driven by agriculture and tourism. Those two uses are still prominent land uses in the valley, but subdivision and vacation home building, are becoming other fast-growing uses.[20]

The Paradise Valley is also rich with Native American history. People have been visiting, hunting, gathering, and living in the valley for nearly 10,000 years.[21] Today, ample evidence can be seen of the peoples who inhabited this area before the arrival of

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[16] U.S. Census Bureau, 2019: ACS 5 Year Estimates Data Profiles, American Community Survey Table ID DP05, (2019), https://data.census.gov/cedsci/table?q=population&g=1600000US3029950&tid=ACSDP5Y2019.DP05&hidePreview=false.

[17] U.S. Census Bureau, Pray CDP, Montana (2019), https://data.census.gov/cedsci/profile?g=1600000US3059725.

[18] U.S. Census Bureau, Emigrant CDP, Montana (2019) https://data.census.gov/cedsci/profile?g=1600000US3024325.

[19] Johnathan Hettinger, Taxes, Zoning Measures could help guide growth, Livingston Enterprise, (Dec. 27, 2018) https://www.livingstonenterprise.com/content/taxes-zoning-measures-could-help-guide-growth-0, (last visited March 17, 2021).

[20] *Id.*; for an in-depth look at similar changing land uses and values that nearby Madison County Montana is facing, *See also* Alison Bidwell Pearce, Uncommon properties Ranching, Recreation and cooperation in a mountain valley, PHD dissertation (August 2004).

[21] Peter Nabokov & Lawrence Loendorf, American Indians and Yellowstone National Park: A Documentary Overview 17, (2002).

settlers.[22] Rock blinds, corrals, campsites, tipi rings are all present.[23] Only in very recent history have these long-time inhabitants been missing from this area. Native Americans of the Paradise Valley were forcefully removed and prevented from returning to the valley by white prospectors and settlers with the help of the U.S. Army.[24] This removal was amplified with the advance of tourism accompanying the founding of Yellowstone National Park.[25] These people were cut off from their lands, excluded, and then intentionally erased from this place.[26] Tribes have not, however, relinquished their claims to these lands and their presence has not been completely erased.[27] Today, tribal members exercise treaty rights to hunt bison in the Gardiner Basin and on the other side of the Gallatin Mountains near West Yellowstone.[28] Yellowstone National Park also grants fee free entry for members of recognized tribes.[29]

The Bison Story

With a sense of place and time established, the next section addresses the history of bison management as well as some basic bison ecology.

Bison History

Bison likely came to North America the same way humans did, by crossing over the Bearing Land Bridge when oceans were at lower levels because the water was locked up in ice caps. When humans first arrived on the North American continent nearly 30,000 years ago, they encountered the bison,[30] an animal that would have been familiar to them, as the now extinct steppe bison existed on the Asian continent.[31] As humans spread across the continent they found bison inhabiting nearly every part of it.[32] The range of bison extended from Alaska where humans are first thought to have arrived, to the southeast of what is today the United States, and as far south as the desert grasslands of Chihuahua Mexico.[33] The omnipresence of these ancient animals led to an intimate relationship between them and the humans spreading across the Americas.

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[22] *Id.* at 70.
[23] *Id.*
[24] *Id.* at 52, 178-89.
[25] *Id.* at 26, 29-31.
[26] *Id.* at 27.
[27] Twenty seven tribes are associated with Yellowstone National Park, NPS, *supra* note 3, at 19.
[28] NPS, *supra* note 14, at 132.
[29] NPS, Management Policies 2006, 111 (2016), and *See* 36 C.F.R. § 71.13(i)(2021).
[30] Lauriane Bourgeon, Ariane Burke & Thomas Higham, *Earliest Human Presence in North America Dated to the Last Glacial Maximum: New Radiocarbon Dates from Bluefish Caves*, PLOS ONE Jan. 2017, at 10, 12(1): e0169486. https://doi.org/10.1371/journal.pone.0169486.
[31] Threshold: Season One: Oh' Give me a Home (Feb. 9, 2017) https://www.thresholdpodcast.org/season01.
[32] Dave Arthun & Jerry L. Holechek, *The North American Bison*, 4 (3) Rangelands 123, 124, (1982).
[33] Rurik List, Gerardo Cebellos, Charles Curtin, Peter J. P. Gogan, Jesús Pachecoand & Joe Truett, *Historic Distribution and Challenges to Bison Recovery in the Northern Chihuahuan Desert*, 21 Conservation Biology 1487, 1489-90 (2007).

Bison were a source of food and materials for the indigenous peoples living with bison across North America, this was especially true for the people that lived in the plains region.[34] That changed with the arrival of European settlers who steadily spread over the landscape introducing horses, disease, and through direct violence, conquering and subduing Native Peoples and other forms of life that lived there.[35] As the United States rose to power it continually pushed the borders of its territory west killing off bison along the way.[36] Railroads were established, mineral and cattle booms occurred, and new tanning processes were developed for bison hides that fueled increased demand for bison hides. In conjunction with these effects of industrialization, settlers wrested the lands from its native inhabitants. The vast herds of plains bison and the people supported by those bison were seen as an impediment to the dominance and expansion of this white industrial culture.[37] By killing the bison, the Native Peoples on the plains and in Rocky Mountain region who depended on the bison, were deprived of their material basis for survival.[38] The bison were slaughtered en masse and stripped of their hides[39] letting the rest of the animal rot.[40] Notoriously, bison were shot for entertainment by passengers on trains, often just wounding the animals.[41] Over an incredibly short period of time, the bison once vast, had been reduced to only a few hundred individuals in small isolated herds scattered around the country.

One of those last remaining herds was located inside Yellowstone National Park. Reduced to approximately 23 individuals, these bison were found living in the Pelican Valley and on the Mirror Plateau just North of Yellowstone Lake.[42] With the bison on the brink of extinction, in 1902 the National Park Service began to intensively manage the remaining bison herd. This meant that the remaining Yellowstone bison were treated more like a domestic herd of cattle and were moved to the Lamar Valley where they were not only fed, but their numbers were increased with bison from private herds in Montana and Texas.[43] As the number of bison increased, some of them were relocated within the park to the Hayden Valley and Firehole Valley.[44] The larger bison herd also induced intensive management, which included culling, until 1968 when management policy changed and the bison were no longer culled. This allowed their numbers to grow, "quadrupl[ing] from about 500 in 1970 to 2,000 in 1980, and nearly 3,000 by 1987."[45]

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[34] Andrew C. Isenberg, The Destruction of the Bison, 7 (2000).

[35] See *Id.*, M. Scott Taylor, *Buffalo Hunt: International Trade and the Virtual Extinction of the North American Bison*, 101 American Economic Review 3162 (2011); NPS, *supra* note 14; Peter Nabokov & Lawrence Loendorf *supra* note 22.

[36] *Id.*

[37] *Id.*

[38] J Weston Phippen, *'Kill Every Buffalo You Can! Every Buffalo Dead Is an Indian Gone'*,The Atlantic (May 13, 2016), https://www.theatlantic.com/national/archive/2016/05/the-buffalo-killers/482349/.

[39] This is of course a gross simplification of a more complex process including a destructive hide trading economy and its concomitant deleterious social and environmental effects. For an in-depth look at these issues reference Andrew C. Isenberg, The Destruction of the Bison (2000).

[40] J Weston Phippen, *supra* note 38.

[41] *Id.*

[42] NPS, *supra* note 3, at 193; Mary Meagher, The Bison of Yellowstone National Park 12, 17 (1973).

[43]Mary Meagher, *supra* note 42, at 26-38.

[44] *Id.* at 31.

[45] NPS, *supra* note 3, at 196.

This population growth along with years of heavy snowfall created pressure for the bison to move into the Northern parts of the park and to seasonally migrate outside of the park to the North and West, where they were not allowed to go.[46]

Bison Ecology

A bison is a large migratory ungulate (hoofed mammal). Male bison can weigh up to 2,000 lbs (900Kg), and females 1100lbs (500Kg).[47] They can jump over 5 feet (1.5 m) high and run 35mph (55Kph).[48] They typically mate in late July-August and calve in the spring around May.[49] Bison are ruminants meaning they have "a multi-chambered stomach that includes microorganisms such as bacteria and protozoa to enable them to effectively digest plant material."[50] It also means that they chew their cud (regurgitated partially digested food) to further mechanically break food down so they can extract as much of the nutrients as possible.[51] Their diet consists "primarily [of] grasses, sedges, and other grass-like plants" and well as "forbs (weeds and herbaceous, broad-leafed plants) and browse (leaves, stems, and twigs of woody plants)" in much smaller quantities.[52]

While commonly referred to as a buffalo, they are only distantly related to true buffalo which are found in parts of Africa and Asia.[53] Bison evolved into a species in Asia and Europe and since then there have been a number of subspecies that have emerged including the bison of North America.[54][55] In Europe some small conservation herds of European bison still exist in a few locations.[56] A small herd of European bison has also been established at the Pleistocene Park in Siberia, Russia.[57] One of the major differences between these modern herds and the Plains bison of Yellowstone, is that the bison in Yellowstone National Park have had the space and time to develop new migratory behavior.

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[46] *Id.* at 196-7.
[47] *Id.* at 193-4.
[48] *Id.* at 194
[49] *Id.*
[50] *Id.*
[51] *Id.*
[52] *Id.*
[53] Mindy Weisberger, *Bison v. Bufalo: What's the Difference?*, Live Science, Dec. 23, 2017, https://www.livescience.com/32115-bison-vs-buffalo-whats-the-difference.html (last visited May 1, 2020).
[54] Mary Meagher, *Bison bison*, 266 The Am. Soc'y of Mammalogists 1, 1-2 (1986).
[55] There is some debate about the actual differences between two sub species of North American bison, plains bison and wood bison. Despite early literature calling Yellowstone bison "mountain bison" or "wood bison" new DNA sampling techniques and a more critical examination of early reports and assumptions made have shown that bison in Yellowstone are, and very likely always have been, plains bison. *See* G A Wilson & C Strobeck, Genetic *Variation Within and Relatedness Among Wood and Plains Bison Populations*, 42 Genome 483, 483-496. (1999); Richard B Keigley, *The Prehistoric Bison of Yellowstone National Park*, 41 Society for Range Management 107, 107-120 (2019).
[56] Animal Diversity Web, *Bison Bonasus*, https://animaldiversity.org/accounts/Bison_bonasus/ (last visited May 1, 2020).
[57] *Bison*, https://pleistocenepark.ru/animals/bison/ (last visited May 1, 2020).

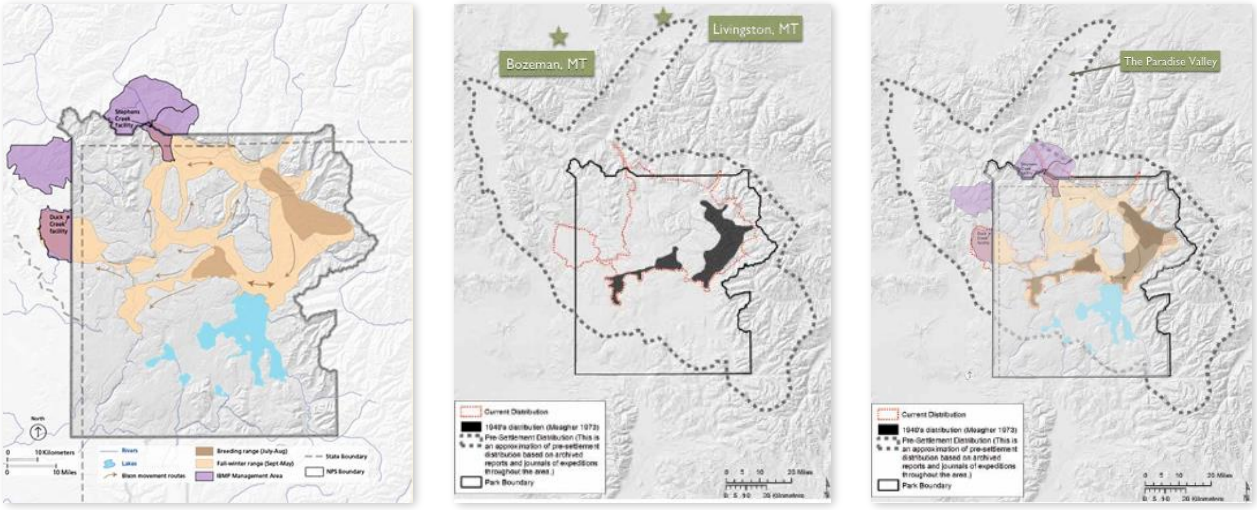

Figure 2 Left to Right show the migratory paths of bison, the historic range, overlay of other two maps. Tolerance areas are shown in pink.

Sources: Left to Right: National Park Service, Bison, https://www.nps.gov/yell/learn/nature/bison.htm (last visited May 16, 2020; adapted from Yellowstone Bison Conserving an American Icon in Modern Society *Supra* at note 28, 6; composite overlay of other two maps.

Bison are migratory animals that exhibit this important behavior that is found not only in bison but in many different animal species from birds to other large mammals. Migration allows animals to follow food sources or to travel to seasonal breeding grounds. Some related and newly famous examples of ungulate migration are of mule deer and pronghorn migration routes in and around the GYE, some as long as 150 miles.[58] While migration can be defined in various ways Joel Berger, the Barbara Cox Anthony University Chair in Wildlife Conservation at Colorado State University, provides a simple but useful definition as a " seasonal round trip movement between discrete areas not used at other times of the year."[59]

Yellowstone bison migrate from higher altitude summer habitat to lower elevation winter and spring habitat.[60] This behavior in bison is driven by food availability, and snowpack.[61] However, migratory travel outside the boundaries Yellowstone is driven by winter severity and population pressures.[62]

In Yellowstone, two herds, the northern and central, take two primary migratory routes.[63] One through the central part of Yellowstone National Park with summer

[58] Matthew J Kauffman, James E. Meachum, Hall Sawyer, Aletha Y. Steingisser, William J. Rudd & Emiline Ostlind, Wild Migrations: Atlas of Wyoming's Ungulates, 136-41 (2018); Joe Riis, Yellowstone Migrations (2017).
[59] Joel Berger, *The Last Mile: How to Sustain Long-Distance Migration in Mammals*, 18 Conservation Biology 320, 321 (2004).
[60] Mary Meagher, supra note 42, 5.
[61] NPS, *supra* note 3, 194-5.
[62] NPS, *supra* note 14, at 14-5.
[63] NPS, *supra* note 14, at 71-80.

habitat in the Hayden Valley, spring habitat outside of West Yellowstone, MT, and winter habitat in the Firehole and Madison Valleys.[64] The other route is from the Mirror Plateau/Upper Lamar Valley summer habitat to winter habitat in lower elevation areas such as the lower Lamar and areas near Gardiner, MT (see Figure 2).[65] [66] It is thought that Yellowstone bison had a historic range that went farther north on both migration routes, however, bison are now currently limited from migrating that far north by humans.[67] If this migratory instinct were allowed to be acted upon the bison would almost certainly be found in lower elevation areas like the Paradise Valley.[68]

Brucellosis

Bison migration has been restricted primarily due to concerns from cattle producers about a disease called Brucellosis. Brucellosis is a bacterial disease caused by the bacterium *Brucella abortus*.[69] Once widespread in the United States, is now only found in Yellowstone bison and elk in this country.[70] The disease can cause an infected female elk, bison, or cattle to abort a pregnancy.[71] In an ironic and rather tragic twist, elk and bison in the GYE likely "contracted the disease from domestic cattle raised in the park to provide milk and meat for visitors."[72]

Brucellosis is a concerning disease not only for the effects it has on the reproduction of cattle but also because the disease is zoonotic, meaning the infection can spread to humans as well.[73] This ability for the disease to infect humans and cattle led to intense and expensive national eradication efforts starting in 1954.[74] Over $3.5 billion has been spent on these efforts.[75] The eradication efforts have been successful "at the end of 2001, for the first time in the United States, there were no known brucellosis-affected herds remaining."[76] Additionally, this form of brucellosis has generally been eliminated from the United States with the exception of the Greater Yellowstone area where the disease continues to persist in the elk and bison.[77] Despite the progress made at eradication efforts, the persistence of the disease puts cattle in the areas around the GYE at risk of infection, with elk, not bison, being responsible for the cases where transmission to cattle has occurred.[78]

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[64] *Id.*
[65] NPS, *supra* note 14, at 71.
[66] Mary Meagher, Range Expansion by Bison of Yellowstone National Park, 70 Journal of Mammalogy 670, 673-74(1989).
[67] NPS, *supra* note 14, at 6.
[68] *Id.* at 71.
[69] NPS, *supra* note 3, at 197-8.
[70] *Id.*
[71] *Id.* at 197.
[72] *Id.*
[73] *Id.*
[74] National Academies of Sciences Engineering and Medicine, *supra* note 1, at 83.
[75] NPS, *supra* note 14, at 23.
[76] National Academies of Sciences Engineering and Medicine, *supra* note 1, at 83.
[77] *Id.*
[78] *Id.* at 2.

Even though there has been no documented cases of bison transmitting brucellosis to cattle,[79] bison have borne the brunt of the stigma and impacts surrounding brucellosis. This is evidenced by the fantastically disparate treatment of elk compared to bison in the GYE. There are various ostensible reasons given for why bison have been made the scapegoat for this disease. The four primary reasons are cattle producers fearing competition, cultural preferences for elk, concerns about property damage, and more foundationally, racism.[80]

Competition is often given as a reason for the resistance to bison, however competition for grass is questionable. Research conducted in the Henry Mountains of Utah, where a wild heard of Bison roams, was studied to determine if bison, cattle and other wildlife were competing for the same resources. The results of the study indicated that bison were not the primary competitors with cattle for grass, it was instead rabbits.[81] The study further suggests that attitudes about the perceived competition between cattle and bison in the Henry Mountains was driven by "the local ranchers'… misunderstanding of the ecological interactions…or were reported with bias to suit their political stance in the HM [Henry Mountains] bison controversy.[82]

Cultural Preferences for elk are shown through the high demand for them as a target for hunting, wildlife viewing. These preferences can be seen in the ways in which elk have been managed and the pressure to increase elk numbers for hunting and to suppress predators in an effort to prevent competition with hunters. In the case of the GYE, elk are given free-reign to roam even though they pose a serious threat of infection to cattle. One can also simply look around the western US and find a plethora of elk themed decorative materials on everything from car decals to shower curtains. Elk are a beloved animal.

Concerns about property damage are a legitimate, although easily resolved, concern. Bison are large animals that like to rub on trees or structures. This behavior is not unlike the rubbing done by cattle. This issue is quite easy to resolve through the use of fencing. There are currently programs that offer financial assistance to build bison fencing to protect buildings.[83]

The ferocity and irrational treatment of bison over elk indicates that there are deeper issues driving the stigma and resistance to bison expansion. One reason could be that the bison represents the way things were before the arrival of white people and cattle. In other words, how things were before white settlers dominated the landscape,

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[79] NPS, *supra* note 14, at 23.

[80] *See* NPS, Questions and Answers About Bison Management (2021), racism is not a reason given by the NPS. https://www.nps.gov/yell/learn/management/bison-management-faqs.htm (last visited April 14, 2021); *See* Brett French, *Montana FWP Oks Elk Brucellosis Plan, Missoulian*, (Nov. 15 2014) https://missoulian.com/news/state-and-regional/montana-fwp-oks-elk-brucellosis-plan/article_a86bff05-6e19-5b4c-a8dc-aff361f08d23.html (last visited April 14, 2021).

[81] Dustin H. Ranglack, Susan Durham & JohanT. du Toit, Competition on the Range: *Science vs. Perception in a Bison-Cattle Conflict in the Western USA*, 52 Journal of Applied Ecology 467-474, 472 (2015).

[82] *Id.*

[83] Greater Yellowstone Coalition, https://greateryellowstone.org/bisonproject (last visited June 6, 2021).

the ecosystem, and the Native Peoples who lived here for millennia. The wild bison represents a threat to that hegemonic power and is a reminder that that their power and their claims to their land are the direct result of an ongoing war of genocide against Native people. While this racism is not necessarily a conscious or fully articulated position (though there are plenty of examples of explicit racism against Native Americans), it forms a source of latent racism. Therefore, the return of bison poses a threat to the white settler dominance over Native American Peoples, the ecosystem, and their claims to rightful ownership of these lands.

Bison Management History

It is unclear exactly how pre-settler Native Americans "managed" bison, though there is some evidence of lands being managed in ways that created or maintained habitat for bison.[84] For example, fire was used to help encourage bison to move into a particular area where the bison could then be skillfully driven over bison jumps or into impoundments (similar to a corral) where they could then be killed.[85] The arrival of horses changed the use of these traditional techniques as it allowed greater mobility and hunting from horseback.[86]

As Europeans advanced west, a policy of killing off the bison in order to vanquish Native peoples was adopted.[87] In a great spasm of death, the bison were nearly exterminated from United States over a short period in the late 1800's.[88] During this period it could be said, nationally, management of bison meant eradication.

As eradication of bison was successfully carried out a growing concern about the fate of these animals took hold. Initially hunting inside the boundaries of Yellowstone was acceptable so long as wildlife was not ""wantonly destroyed" and not subject to "capture and destruction for the purposes of merchandise or profit.""[89] This lax language and questions about enforcement jurisdiction, led to the army, who was in charge of administering the park at that time, to struggle to be able to protect wildlife in Yellowstone. As a result, the Lacy Act of 1894 was passed. The act enhanced protection for wildlife in Yellowstone giving the calvary the legal and jurisdictional authority to enforce hunting bans withing the park.[90]

In 1902 bison from outside of the park were introduced to the park in an effort to preserve the species.[91] These bison came from two separate private herds of bison, the Pablo-Allard herd from Montana and the Goodnight herd from Texas.[92] The role of

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[84] Russel Lawrence Barsh & Chantelle Marlor, *Driving Bison and Blackfoot Science*, 31 Human Ecology, 580 (2003).
[85] *Id.*
[86] Christopher I. Roos, Maria Nieves Zedeño, Kacy L. Hollenback, & Mary M. H. Erlick, *Indigenous Impacts on North American Great Plains Fire Regimes of the Past Millenium*, 115 PNAS, 8143-8148, 8147, (Aug 7, 2018).
[87] J Weston Phippen, *supra* note 38.
[88] Mary Meagher, *supra* note 42, at 18-22.
[89] *Id.* at 12.
[90] *Id.*
[91] *Id.* at 93.
[92] *Id.* at 26.

Native Americans here cannot be understated as the bison from the Pablo-Allard herd were preserved and given to the park by Native American's Michael Pablo and Charles Allard, from their private herd of bison.[93] This new herd of imported bison "were closely day-herded, and apparently put in a fenced pasture at night."[94] This period is characterized as intensive management of bison, where the bison were essentially treated like a herd of domesticated cattle.[95]

Around 1915 the intensive management of the bison loosened and bison were allowed to wander the open range during the summers.[96] This action likely led to interbreeding between the imported herd of bison and the remaining wild Yellowstone bison.[97] Intensive management was further loosened as park management, now managed by the National Park Service, policy changed around 1930 to a goal of preserving bison in their natural state.[98] However, bison were still rounded up every year and a percentage of bulls were castrated with a management goal of ensuring that the herd could perpetuate itself without growing too large.[99] A practice that would not fit with our contemporary notions of allowing bison to exist in their natural state. These roundups continued until 1939 when managers switched their technique to hay-baiting which was used to lure bison in from the open range.[100] Along with hay-baiting for roundups, "hay was fed to bison to some extent every winter through 1952."[101]

This new natural state policy of bison management include expanding where bison were located and in 1936 bison from the Lamar Valley were relocated to the Firehole and Hayden valleys with the intention of stimulating herd growth.[102] This relocation of bison to the Firehole Valley and Hayden Valley created the basis for now what are seen as two generally distinct herds. Today these are known as the central herd and the northern herd.[103]

Culling and early relocation

The issue of brucellosis was looming and "[a]s early as the 1920's, park managers became concerned about brucellosis and overgrazing by bison and other ungulates, especially elk."[104] From this time up until 1968 the National Park Service culled and

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[93] Indians of Yellowstone page 93. For a more in-depth look at how the Pablo-Allard herd was formed and Native Americans saved bison see pages 93-99. Native Americans have been a part of bison restoration efforts all along and are the prime driver of contemporary bison restoration efforts as covered in later parts of this paper.
[94] Mary Meagher, *supra* note 42, at 26.
[95] *Id.* at 12.
[96] *Id.* at 29.
[97] *Id.*
[98] *Id.* at 33.
[99] *Id.* at 29.
[100] *Id.* at 31.
[101] *Id.*
[102] Julie A. Fuller, Robert A Garrot & P.J. White, *Emigration and Density Dependence in Yellowstone Bison*, 71 Journal of Wildlife Management 1924, 1925 (2007).
[103] NPS *supra* note 3, at 195.
[104] NPS *supra* note 13, at 49.

removed bison from the park.[105] This was done to maintain a small herd that was thought to be in line with what was considered at the time the carrying capacity of the range.[106] During this process bison that were thought to be infected with brucellosis were disposed.[107] In order to prevent the spread of disease and keep bison numbers within the management preferences of the times, these actions were carried out under the authority granted to the Secretary of Interior in 16 U.S. Code 36 which allows the secretary, at their discretion, to:

> [G]ive surplus elk, buffalo, bear, beaver, and predatory animals inhabiting Yellowstone National Park to Federal, State, county, and municipal authorities for preserves, zoos, zoological gardens, and parks. He may sell or otherwise dispose of the surplus buffalo of the Yellowstone National Park herd, and all moneys received from the sale of any such surplus buffalo shall be deposited in the Treasury of the United States as miscellaneous receipts.[108]

During this period many Yellowstone bison were shipped around the country "to zoos, parks, tribal reservations, and other places" and "[t]housands of bison were killed and provided to American Indian tribes, relief agencies, and contract sales."[109] To give a sense of scale of these operations, "[b]y 1967, there were less than 100 bison in northern Yellowstone and 400 bison in central Yellowstone."[110]

Emergence of modern management

Starting in 1968 managers in Yellowstone changed their management approach to something that is similar to today's management practices, that is to treat bison (and other Yellowstone wildlife) as wild animals allowing them to face the full force of any natural hazards.[111] This change in management approach was a result of a combination of growing awareness of the "interrelationships of wildlife in nature" as well as the politics of hunting (elk) and other recreational values.[112] This change in policy meant an end to intense management and culling of bison, so while now facing natural hazards, bison were able to reproduce unchecked by humans.[113] This change in management allowed bison numbers to increase and also impacted their movements resulting in two distinct herds we know today, the northern herd, and the central herd. [114]

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[105] Elk were also culled and predators eradicated during this period, NPS, Yellowstone's Northern Range Complexity & Change In a Wildland Ecosystem, 4-5 (1997)

[106] The carrying capacity that managers came to was based on commercial rangeland practices and was ultimately incorrect; *Id.* at xii, 31-33.

[107] NPS *supra* note 13, at 49.

[108] 36 U.S.C. §36 (1923).

[109] NPS *supra* note 13, at 49 (internal quotes omitted).

[110] *Id.*

[111] *Id.*

[112] National Research Council 2002, Ecological Dynamics on Yellowstone's Northern Range, The National Academies Press, 28-29 (2002) https://doi.org/10.17226/10328.

[113] NPS *supra* note 13, at 49.

[114] *Id.* at 51.

As population numbers increased bison began to occasionally wander north out of the park where they were met by Montana Fish, Wildlife & Parks officials, and sometimes NPS employees, who killed them in the name of preventing the spread of brucellosis to cattle in the area.[115] Eventually, enough bison were leaving the park that managers decided other methods of control were preferable and a hunting season was created for bison in Montana.[116] Under pressure from Montana officials and local ranchers, the NPS established management plans that defined boundaries and the use of lethal control measures.[117] During the period of 1985 and 2000 approximately 3,100 bison attempting to leave the park were culled.[118] Of these culled bison, "2,339 bison…were captured and shipped to meat processing facilities" and hunters or state officials killed 778 bison.[119]

The culling of bison attempting to migrate out of the park "generated intense controversy among environmentalists, stock growers, and management agencies regarding issues of bison conservation and containment."[120] Eventually, in the 1980's the controversy boiled over into lawsuits, the first of which was brought by the Fund for Animals.[121] While state and federal agencies were able to defend themselves against these lawsuits, the effect of them was to make these various agencies realize that they needed to work together in order to manage bison.[122] This led agencies to formally recognize this need in 1990 when notices to conduct an environmental impact statement evaluating the impacts of coordinated management were published.[123] Then in 1992 the National Park Service, the U.S. Forest Service, the U.S.D.A., Animal and Plant Health Inspection (APHIS), Montana Fish, Wildlife & Parks, and the Montana Department of Livestock signed "a 'Memorandum of Understanding' (MOU) to work together in developing a plan to meet their varying and sometimes contradictory objectives."[124] This MOU led to several interim bison management plans.

In 1995 following concerns about the state losing it's brucellosis-free status, the State of Montana sued both the NPS and APHIS to prevent changes that would harm the State's brucellosis free status.[125] The parties eventually resolved the case by agreeing to a settlement that "incorporated the 1992 Memorandum of Understanding" (MOU) and required a schedule for completing

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[115] *Id.*
[116] *Id.* at 52.
[117] *Id.*
[118] *Id.*
[119] *Id.*
[120] *Id.*
[121] NPS & U.S. Department of Agriculture Animal and Plant Health Inspection Service, Record of Decision for Final Environmental Impact Statement and Bison Management Plan for the State of Montana and Yellowstone National Park, 3-4 (Dec. 20, 2000).
[122] *Id.* at 4.
[123] *Id.*
[124] *Id.*
[125] *Id.*

a "long-term bison management plan and accompanying environmental impact statement."[126]

In 1996, a fourth interim bison management plan was adopted following the lawsuit settlement.[127] This new plan expanded the various management activities to include allowing bison that left the park in the Steven's Creek area to be captured and tested for brucellosis or pregnancy. Bison that tested positive for brucellosis or pregnancy were sent to slaughter and the NPS was able to return 125 bison that tested negative for brucellosis back to the park.[128] Bison in the eastern areas north of the park would not be removed because those areas did not have domestic cattle grazing there in the winter.[129] The plan also called for greater tolerance of bison that posed a low risk of transmitting brucellosis (bull bison) outside of the park.[130] This fourth interim plan was challenged in two lawsuits. However, both the U.S. District Court for the District of Montana and the Ninth Circuit agreed that the actions were "within the authority and discretion of the agency."[131]

In June of 1998, both the federal and state agencies released their Draft Environmental Impact Statements (DEIS) for the proposed Interagency Bison Management Plan (IBMP).[132] After public comment, the federal agencies developed an option that "would allow greater tolerance for bison outside the park under stringent conditions that would continue to control the risk of transmission of brucellosis from bison to cattle," and " provide for a larger bison population than the preferred alternative in the DEIS."[133]

The federal agencies presented this modified option to the state agencies, however after several months of discussions an impasse was reached on several issues "including the ages and classes of bison to be vaccinated, the criteria used to decide when bison would be allowed outside the park, and how to use spatial and temporal separation in an adaptive management approach to managing the risk of transmission of brucellosis."[134] This led the federal agencies to withdraw from the earlier MOU agreement which also "triggered the dismissal of the 1995 lawsuit." However, before the lawsuit was dismissed, the parties agreed to attempt mediation through a court-appointed mediator.[135] Mediation was successful and resulted in a plan that satisfied the needs of everyone.[136]

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[126] *Id.*
[127] *Id.*
[128] *Id.*
[129] *Id.* at 5.
[130] *Id.* at 4.
[131] *Id.*
[132] *Id.* at 5.
[133] *Id.*
[134] *Id.*
[135] *Id.*
[136] *Id.*

Having come to a satisfactory agreement, the parties memorialized this plan in their respective Record of Decisions. The ROD's described the plan and the formation of the Interagency Bison Management Plan.

Interagency Bison Management Plan

After working through many of the difficult initial issues, the various government actors were able to start working together through the Interagency Bison Management Plan (IBMP). This plan is a form of collaborative governance between various federal, state, and tribal entities. These various stakeholders are intended to work together in pursuit of four primary goals. These are: 1) to "maintain a wild, free ranging bison population," 2) to "reduce the risk of brucellosis transmission from bison to cattle," 3) to manage bison that leave the Yellowstone National Park and enter the State of Montana," and 4) to "maintain Montana's brucellosis-free status for domestic livestock."[137]

The current members of the IBMB are the NPS, the U.S. Forest Service, USDA Animal Plant and Health Inspection Service (APHIS), Montana Fish, Wildlife & Parks, the InterTribal Buffalo Council, the Confederated Salish & Kootenai Tribes, and the Nez Perce Tribe.[138] There are some additional stakeholders who are not members, but are still able to engage with the IBMP including members of the public and several tribes with treaty rights to hunt bison in southwestern Montana.[139] Despite their non-member status these tribal stakeholders, the Shoshone-Bannock Tribes, Confederated Tribes of the Umatilla Indian Reservation, and Confederated Tribes and Bands of the Yakima Nation, regularly participate in IBMP meetings. [140] The public, however is not a member and its role is generally limited to listening and offering short public comments during regular partner meetings.[141]

The IBMP was designed as a multi-step process that would start from a highly restrictive first stage focused on gathering information to a third stage of greater tolerance and long term management. [142] The three step program centered largely around whether bison and cattle would be present on the same parcel of land at the same time. Step one was highly restrictive and information gathering, step two, the restrictions lifted slighted, and step three was intended to be a final and more nuanced as well as be a less restrictive management regime (compared to steps one and two). During the initial step, there were unknowns about whether a vaccine for brucellosis could be developed and effectively administered to bison and how long brucellosis persisted in the environment.[143] Step one was therefore was highly restrictive and managers relied on hazing and capture of bison in order to prevent them from leaving

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[137] Interagency Bison Management Plan (hereinafter IBMP), Home, ibmp.info (last visited 3/15/2021).
[138] IBMP, *Partner Protocols*, 2 (Aug. 28, 2018).
[139] IBMP, 2020 IBMP Annual Report, 3 (2020).
[140] *Id.*
[141] IBMP *supra* note 137, at 3.
[142] NPS *supra* at note 14, at 54.
[143] *Id.* at 57; *See* IBMP, Annual Report July 1, 2008 through June 30, 2009 (2009), the report shows just how many questions were needing to be answered to move forward with subsequent annual reports reflecting answers to those questions.

the park.[144] After the Royal Teton Ranch, located in the Gardiner basin, agreed to not graze cattle on the range in winter it was agreed that up to 100 bison that had tested negative for brucellosis would be released to graze in tolerance areas outside of the park until April 15th. [145] During this second step, step one restrictions continued to be enforced with the exception of these 100 bison.[146]

Step 3 was supposed to be the final step.[147] At this point the agencies were supposed to know the right time and distance that bison and cattle would need to be separated in order to prevent brucellosis transmission, they would also have experience in how to manage bison outside of Yellowstone, and they had hoped to have a vaccine program that would vaccinate all female bison against brucellosis.[148] When these conditions were met the agencies would then be willing to allow 100 untested bison to be in both the North and West tolerance areas.[149] Bison would be captured and culled in an effort to maintain a population of 3,000 bison.[150] Bison would also not be tolerated outside the park after the established spring cutoff dates. Importantly, a quarantine and testing protocol to certify bison as brucellosis free for live transfer outside of the park was included.[151] However, the state and federal agencies were slow to move forward in the step process.[152]

In 2005 and 2006 adjustments to the plan were made to make hunting outside of the park a management action and to "increase tolerance for bull bison because there is virtually no risk of them transmitting brucellosis to cattle."[153] In addition to those changes, over multiple years several Native American tribe's treaty rights to hunt bison on federal lands outside of the park were recognized by the State of Montana (see table).

Year of Hunting Rights Recognition
2006
Confederated Salish and Kootenai Tribes of the Flathead Nation
Nez Perce Tribe
2009
Shoshone-Bannock Tribes
2010
Confederated Tribes of the Umatilla Reservation

Source: NPS, Yellowstone Bison Conserving an American Icon in Modern Society 53 (P.J. White, Rick L. Wallen & David E. Hallac eds. 2015).

[144] *Id.* at 56-57.
[145] *Id.* at 57.
[146] *Id.*
[147] See next page for adaptive management changes for explanation.
[148] NPS *supra* at note 14, at 57.
[149] *Id.*
[150] *Id.*
[151] *Id.*
[152] IBMP, Annual Report, July 1, 2008 through July 31, 2009, 1 (2009).
[153] NPS *supra* at note 14, at 58.

Together, all hunting contributed to the reduction of bison leaving the park each year. The numbers harvested however varied from year to year with the State of Montana setting harvest quotas for non-native hunters who purchase bison hunting tags.[154] Numbers of bison harvested by Native Americans are set by the tribes themselves.[155] Despite this different management jurisdictions, the various stakeholders "meet each summer to discuss objectives, no-shooting zones, access, enforcement, and the sharing of harvest data."[156]

Hunting was not the only innovation with the IBMP, from 2005 to 2010 APHIS carried out a study to investigate whether a quarantine and transfer process could work. The study proved to be successful and the first batch of bison declared "brucellosis free" were transferred to a private ranch in Montana where the bison were surveilled for brucellosis for another five years.[157] After that five year period, "in November 2014, the original quarantine bison plus about 25 percent of their offspring were transferred to the Fort Peck Indian Reservation in Montana."[158] Following this successful quarantine process, additional bison were transferred to the Fort Peck Indian Reservation and Fort Belknap Reservation.[159]

As the federal and state partners worked together on management, they came under criticism for culling practices and "for not consistently defining measurable objectives or applying adaptive management principles."[160] This led to the agencies moving forward with a recommendation from the U.S. Office of Government Accountability. The recommendation was to implement a system of adaptive management where decisions and management objectives could be evaluated for effectiveness.[161] The recommendations also included creating a better system for keeping stakeholders and the public informed.[162] Some of the specific changes made to the program

> (1) further described the circumstances for bison occupying habitats outside the park, (2) established a precedent for minimizing the shipment of bison to meat processing facilities, (3) re-affirmed the commitment to vaccinating bison, (4) outlined a process for sharing decision documents with the public, and (5) specified metrics for annual monitoring and reporting on management actions.[163]

A major advance in bison tolerance outside of Yellowstone occurred in 2009, when the Royal Teton Ranch, just north of Yellowstone National Park, were paid to

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[154] *Id.*
[155] *Id.*
[156] *Id.*
[157] *Id.*
[158] *Id.* at 59.
[159] *Id.*
[160] *Id.*
[161] IBMP *supra* note 151.
[162] *Id.*
[163] NPS *supra* note 14, at 62.

allow bison to use their lands for thirty years.[164] Following this agreement, the IBMP was adjusted in 2011 and 2012 to accommodate this new development.[165]

As the partners continued to work together it was recognized that there was value in hearing the voices of the public. In 2010 the Citizens Working Group was created to provide this public input to the partners as a collaborative effort of a "diverse group of stakeholders."[166] This working group helped not only provide management solutions, but also helped establish transparency and accountability when making management decisions.[167]

IBMP partners have developed a functioning collaborative governance regime through the initial plan and the subsequent adaptive management changes to the plan. As circumstances changed and partners learned more about their bison management paradigm new partners were added and a voice was given to the public. Since then, a number of new major developments have occurred.

Recent Developments to the IBMP

Since the inception of the IBMP the group has been able to make significant progress in how bison are managed. Originally the State of Montana was extremely hostile to bison venturing outside of the park boundaries, however over the years, this has somewhat shifted. After years of work between various interest groups and the State of Montana, in 2020 Montana Fish, Wildlife & Parks decided that bison could be restored as a wildlife species as opposed to classification as domesticated livestock in Montana.[168] This was a significant step towards establishing herds of bison as wildlife outside of the current areas where they are allowed. Unfortunately, Montana seems to have regressed and on April, 20 2021 the Governor of Montana made a surprise announcement that a lawsuit between Montana Department of Fish Wildlife and Parks and United Property Owners of Montana (a private property rights group opposed to the American Prairie Reserve), was settling the lawsuit.[169] The settlement declares the Final Programmatic Environmental Impact statement for Bison Conservation and Management in Montana and the associated Record of Decision are "vacated and declared null and void."[170] This is a major set-back for bison as wildlife conservation in

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[164] *Id.*

[165] *Id.*

[166] *Id.*

[167] *Id.* at 62-64.

[168] Montana Fish, Wildlife & Parks, Final Programmatic Environmental Impact Statement Bison Conservation and Management in Montana (Jan. 7, 2020).

[169] Matthew Brown, *Governor Drops Bison Plan, Says He's Protecting Ranchers*, Associated Press, (April 20, 2021), (last visited April 27, 2021) https://apnews.com/article/health-environment-and-nature-business-government-and-politics-bison-a4f491eb3c2f8abba0dbe41450e0344a; United Property Owners of Montana, Home, https://upom.org/; *United Property Owners of Montana, INC. v. Montana Department of Fish Wildlife and Parks*, DV-2020-30, Mont. Tenth Jud. Dist. Ct., Fergus County.

[170] Settlement at 1, https://upom.org/; *United Property Owners of Montana, INC. v. Montana Department of Fish Wildlife and Parks*, DV-2020-30, Mont. Tenth Jud. Dist. Ct., Fergus County.

Montana and undoes considerable work that went into the decision to allow bison to be established in the state as wildlife outside of Yellowstone.

The new development in Montana raises questions as to what the Federal Government will do without Montana's bison as wildlife management policy in place. One place that developments are happening is the Bison Conservation Initiative that was first announced on April 7, 2020.[171] The initiative has five central goals they are (1) committing "to conserve bison as healthy wildlife," (2) to committing to genetic diversity, (3) committing to "shared stewardship. . . in cooperation with states, tribes and other stakeholders", (4) "a commitment to establish and maintain large, wide-ranging bison herds on appropriate large landscapes" where they will play a part in restoring ecosystems, and (5) " a commitment to restore cultural connections to honor and promote the unique status of bison as an American icon for all people."[172] Together these goals represent a federal commitment to the restoration of bison on DOI lands. Missing from this is initiative however, is USDA Forest Service lands. Forest Service lands often abut NPS and other DOI lands. In addition to this DOI initiative, the federal government may also list the bison as an endangered species. The Buffalo Field Campaign, a wild bison advocacy group, has already petitioned the U.S. Fish and Wildlife Service to do just this.[173] Federal management of bison on U.S. public lands could also be declared and simply remove the state of Montana from the equation. This would allow bison to be restored to federal lands, however this would likely be politically inflammatory and would create a situation similar to what bison faced before the IBMP where bison were shot when they left the boundary of the park. Of course an endangered species listing would protect bison regardless of the jurisdiction or ownership of the land.

Bison management has progressed on other fronts as well. The bison conservation and transfer program has proved to be a success. One way this is evidenced is that "since 2019, 104 bison have been transferred to the Fort Peck Tribes who have been leaders in bison reintroduction efforts. Forty of those animals were transferred to 16 other tribes in 2020. Another 110 animals are in the program right now and will be transferred to the Fort Peck Tribes in the coming years."[174] The National Park Service is indicating that quarantining and transferring the bison to interested parties is the direction that they would like to go in for managing bison herd numbers and is looking to double the current capacity for doing so.[175] Currently a number of bison are still culled every year when hunting and quarantine does not achieve the management goals.[176] The NPS has said for decades now that culling is not something the park wants

[171] U.S. Dept. of Int., Interior and Partners Commit to Long-Term Initiative to Conserve the American Bison, Press Release, (April 7, 2020)
[172] *Id.*
[173] Buffalo Field Campaign, Endangered Bison Endangered Migration, (last visited April 28, 2021) https://www.buffalofieldcampaign.org/endangered-bison-endangered-migration.
[174] NPS, Bison Conservation Update, 11 (Nov. 2020).
[175] *Id.* at 6.
[176] *See* IBMP, 2020 Annual Report of the IBMP, 12-13, (2020).

to be doing.[177]

One of the great benefits of the conservation and transfer program is the good that is occurring in Native American communities around the country that have received bison that were transferred from the Fort Peck Tribes to the Intertribal Buffalo Council.[178] The Intertribal Buffalo Council, which has "a membership of 69 tribes in 19 states with a collective herd of over 20,000 buffalo,"[179] distributed these bison to 16 member tribes across 9 states so far.[180] First and foremost, bison offer a way for Native American peoples to revitalize "Native life, health, and spirit."[181] There is a palpable sense of pride, dignity, and dynamism that is growing out of the return of these animals that played such an important role in many Native American people's lives before the genocide.[182] There have been other benefits as well. The bison have offered a way for tribes across the country to come together and work on a common interest. This has led to a growing awareness of their collective political and cultural power. This growing awareness has transformative potential for both our country and world.[183] Some of the tribes have been processing and selling bison meat and products as well showing that there is potential for economic benefits.[184][185]

One final development are the proposed changes within the Custer Gallatin National Forest, which borders Yellowstone to the North and northwest. The Forest Service is currently considering the closure of the Beattie Gulch Area and McConnell Fishing Access area to shooting due to concerns over safety.[186] Beattie Gulch in particular has been a source of conflict due to the way hunts for bison occur there. It is an area that essentially funnels the bison through a narrow area where large amounts of

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[177] Declaration of Cameron H. Sholly at question 4, Neighbors Against Bison Slaughter v. The National Park Service, (2019) 1:19-cv-00128 SPW; Threshold: Oh, Give Me A Home: For the Benefit of the People, 16:02-16:24, (Feb. 9, 2017)(https://www.thresholdpodcast.org/season01).

[178] NPS *supra* note 174, at 4.

[179] Intertribal Buffalo Council, ITBC Member Tribes, (Last visited Feb. 27, 2021) https://itbcbuffalonation.org/itbc-member-tribes/.

[180] NPS *supra* note 174, at 4.

[181] David Cournoyer, *Return of the Buffalo: The Effort to Restore Bison to Native Americans*, 7 Tribal College Journal of American Indian Higher Education, (1996) (https://tribalcollegejournal.org/retrun-buffalo-effort-restore-bison-native-americans/).

[182] *See* John C. Cannon, *Hope and Peace Bison Return to the Rosebud Reservation*, Mongabay (Dec. 10, 2020) (https://news.mongabay.com/2020/12/hope-and-peace-bison-return-to-the-rosebud-reservation/); Jeremy Hance, *How Native American Tribes are Bringing Back the Bison from Brink of Extinction*, The Guardian (Dec. 12, 2018)(https://www.theguardian.com/environment/2018/dec/12/how-native-american-tribes-are-bringing-back-the-bison-from-brink-of-extinction).

[183] The National Wildlife Federation, Restoring Bison to Tribal Lands, https://www.nwf.org/Our-Work/Wildlife-Conservation/Bison/Tribal-Lands.

[184] Intertribal Buffalo Council, Buying Buffalo Meat and Products (Last visited Feb. 27, 2020) https://itbcbuffalonation.org/meat/.

[185] In addition to the activities in the Yellowstone area, the U.S. Department of Interior returned management authority of the National Bison Range to the Confederated Salish Kootenai Tribes in northwest Montana early in 2021. This was a significant step towards recognizing tribal sovereignty, management capacity, and respect. Anna V. Smith, *A Reconciliation*, 53 High Country News, 12-13 (Feb. 2021).

[186] Second Notice of Intent to Issue Forest Order Closing Areas Near Beattie Gulch Trailhead and McConnell Fishing Access North and West of Gardiner, Montana to the Discharge of Firearms, 86 Fed. Reg. 2380 (Jan. 12, 2021).

hunters then take simultaneous shots at bison leading to conflicts between hunters, maimed animals retreating back into Yellowstone, questions about the ethics of hunting this way in this particular spot, and safety concerns for drivers on the public road as well as property owners, and other recreational users.[187] The Forest Service is also considering options for allowing "expanded tolerance" of bison on the Gallatin Custer National Forest as part of their most recent Forest Management Plan.[188] This sets the scene for bison to migrate beyond the current tolerance area and represents another step towards a greater acceptance of wild bison in the area north of Yellowstone National Park.

Bison Should be Allowed to Migrate into the Paradise Valley

Despite the positive developments achieved through the IBMP, more needs to be done to ensure that Yellowstone bison have a full migratory range. Pressure from the bison population and a confluence of social and political forces are creating an opportunity to accomplish this goal by allowing bison to migrate into the Paradise Valley. Doing this would not only benefit the bison, but could also benefit the ecology of the valley and the people living there, creating the potential for a win-win situation that could be a renaissance to the valley while generally maintaining a rural way of life and keeping an open undeveloped landscape.

Under this proposal, bison would be allowed to roam freely as wildlife from the Northern Boundary of Yellowstone National Park north through the Gardiner Basin and through the entirety of the Paradise Valley. The bison would bring with them their unique capacity as ecosystem engineers, hoofing the ground, creating wallows, encouraging vigorous plant growth through intensive grazing, and of course lots of bison dung which fertilizes the soil. The presence of bison will bring with them other wildlife such as songbirds attracted to areas around wallows, which could encourage a wider diversity of species to the valley.[189] The abundance of wildlife is what then offers the people living in the valley a chance to maintain their way of life, keep landscapes open, and prosper economically and culturally.

Valley residents who currently raise cattle and grow crops could be able to maintain a relatively similar way of life through the use of bison harvesting in lieu of cattle ranching and crop production. Residents who rely on tourism could see an

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[187] USDA National Forest Service, US Forest Service Custer Gallatin National Forest Background and Justification (June 2020); Threshold: Oh, Give Me A Home: Born Free, 21:26–27:55(Feb. 16, 2017) (https://www.thresholdpodcast.org/season01-episode03); Brett French, *Montana Residents Say Bison Hunts Near Yellowstone Unsafe*, Great Falls Tribune (April 25, 2019) https://www.greatfallstribune.com/story/news/2019/04/25/montana-residents-say-bison-hunts-near-yellowstone-unsafe/3573006002/ ; Joseph Bullington, *Hunting in a Postage Stamp* (April 25, 2019) https://www.livingstonenterprise.com/content/%E2%80%98hunting-postage-stamp%E2%80%99.

[188] USDA National Forest Service, Draft Record of Decision Custer Gallatin National Forest Land Management Plan, Publication No. R1-19-07. 14 (July 2020).

[189] Maggi Sue Sliwinski, *Changes in Grassland Songbird Abundance and Diversity in Response to Grazing by Bison and Cattle in the Northern Mixed-Grass Prairie* 26-29 (2011) (Thesis for Master of Natural Resources Management, the University of Manitoba).

increase in the numbers of people stopping as they travel through the valley, and the Valley itself could become a tourist destination. The landscape could be kept open through the use of voluntary conservation easements and removal of fencing. Residents could see the benefits of tourism, hunting, and bison harvest. The return of bison to the valley could also bring a renewal of culture through the creation of bison culture that would be celebrated through festivals and cottage industry. There is also a great opportunity for valley residents to begin the work of reconciliation with Native Peoples with claims to the valley lands. Finally, a project like this would come with infrastructure needs that could make the roads safer, encourage tourism, and temporarily bring higher paying infrastructure jobs to the valley.

This proposed solution would require the continued and combined effort and buy-in of all, or at a minimum, most the stakeholders in the valley. For that reason, a collaborative governance scheme offers an ideal way for this to be carried out. People and organizations with an interest in bison or who are affected by them would have direct say in the management of the animals within a community derived governance body. With the precedent of the IBMP showing that such efforts are possible in the area, stakeholders in the Paradise Valley could take advantage of the lessons learned through the IBMP process and build off the already established working relationships that the various government actors already have.

Benefits of Bison Migration

A return of bison to the valley offers a number of potential benefits that are explored below. Within these different areas of benefits some of the complications are addressed as well. This list is not exhaustive, it is only one set of possibilities that is meant to show that this is possible. If this plan were to be put into action, community stakeholders would develop their own ideas, and determine how they want their valley to be managed.

Restoring the Ecology

Valley lands are comprised of a mix of uses including grazing, irrigated farming, and both residential and commercial development. Some of these uses have displaced native plant and animal communities. The reintroduction of bison in conjunction with removal of fences, and re-establishing native plant communities, could restore and reinvigorate the ecology of the valley through the bison's unique "engineering" abilities that effect vegetation and green up as well as through the creation of micro-habitats that can lead to greater biodiversity.

This engineering is achieved "by preferentially feeding on grasses and avoiding some flowering plants, while preventing plant community succession through hoof action and horning or rubbing on trees and shrubs."[190] The wallowing behavior of bison leaves small depressions in the ground that can act like little ponds and create habitat

[190] NPS *supra* note 14, at 108.

for more diverse plant life, and song birds.[191] This is behavior that cattle do not exhibit and thus do create this diversity of habitat.[192] This ecological relationship with the plants the bison eat, even affects their migration patterns which are different from elk and deer.

During the spring most ungulates migrate in a pattern that is known as the "riding the green wave," which is a seasonal pattern of plant life progressively returning from lower elevations to higher elevations in the spring.[193] Bison are unique in that they seem to create their own green wave.[194] They do this by intensively grazing areas and fertilizing it with their dung and urine, creating spring like green up conditions that are more nutrient rich for longer periods.[195] This essentially prolongs spring conditions at lower elevations.[196] The impacts of the bison continue with "increased grazing of the same grasslands over time caus[ing] them to green up faster, more intensely, and for a longer duration."[197]

This all suggests that the presence of bison would help to encourage a more diverse ecosystem in the valley through their "engineering" behaviors. Landowners in the valley could take advantage of bison restoration efforts occurring all around the country, by staying current on the impacts of bison restoration on those lands. The American Prairie Reserve and the Fort Peck Reservation both offer nearby examples.

Eliminate Conflict Between Ranching and Wildlife

Since bison have been leaving the boundaries of Yellowstone, the primary conflict between humans and bison has been centered around concerns over brucellosis being transmitted to cattle. While these concerns still exists today, advances in the understanding of how the disease is transmitted and when the risk of transmission is present has shown that the risk of bison transmitting the disease to cattle is almost non-existent.[198]

In either case, raising cattle in this area is difficult. Ranchers must be constantly vigilant against brucellosis spreading elk due to the economic consequences of herd quarantine if cattle are found infected with brucellosis.[199] They must also deal with losses from predators such as wolves and grizzly bears. There are also challenges of weather and health of the cattle. Finally, ranchers in the valley face the pressures of real estate development and competing land use interests. This may be in part why the

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[191] Maggi Sue Sliwinski *supra* at note 189.
[192] *Id.* at 30.
[193] Chris Geremia, Jerod A. Merkle, Daniel R. Eacker, Rick L. Wallen, P.J. White, Mark hebblewhite & Mathhew J. Kauffman, Migrating Bison Engineer the Green Wave, 116 PNAS 25707, 25707 (2019).
[194] *Id.*
[195] *Id.*
[196] *Id.*
[197] *Id.*
[198] National Academies of Sciences Engineering, and Medicine *supra* note 1, at 2.
[199] Todd Wilkinson, *A Showdown Over Elk in Paradise?*, (July 30, 2020), https://mountainjournal.org/montana-ranchers-face-showdown-with-diseased-elk-in-setting-for-tv-show-yellowstone.

number of cattle raised in the valley is relatively small, as of 2010 only approximately 700 head of cattle in the Paradise Valley.[200] This is compared to the cattle industry as a whole in Montana which produces 2.2 million cattle each year.[201]

Given the harsh realities of raising cattle in the valley, and the many factors weighing against it, it seems that continuing to raise cattle in the Paradise Valley may not be the best use of land. However, people love their cattle and their way of life. This creates a conundrum of how to best manage lands and wildlife while fully respecting and appreciating the rancher's passion and way of life. While bison have been seen as a threat to the rancher's existence, the bison may offer a way for ranchers to escape many of the harsh realities of raising cattle while generally maintaining their way of life and values.

In order to resolve this conundrum, the community could phase out cattle ranching in the valley either through incentives or through a zoning ordinance. Phasing out cattle ranching would immediately resolve issues around brucellosis in the valley. It would also solve conflicts between wildlife more generally and cattle including competition for grass and conflicts with predators such as bears and wolves. Without cattle in the valley, bison reintroduction would be free of any active management in the form of round ups, hazing, or time and space restrictions.

While this may seem like a drastic step, this offers a way out of the conflicts while preserving the dignity and way of life that is so important to ranchers. Given the small number of cattle raised in the valley, the impacts on the broader cattle industry would be minimal. Depending on market conditions and how bison management ended up being carried out, bison could even prove to be a more profitable venture for ranchers.

Bison offer this unique solution in large part because these animals are so prolific. The herd grows at approximately 10 to 17 percent per year.[202] As an example of the abundance of bison, in 2020 the National Park Service culled 442 Yellowstone bison, that year approximately 834 bison were removed in total by all management actions.[203] Ranchers could be given a priority right to harvest the same number or monetary value of bison that they currently earn from cattle each year. Given that this plan would be community driven, how this would exactly be implemented is an open question. However, some possible solutions would be that ranchers or agricultural growers could directly harvest animals or they could sell their harvest rights to hunters or outfitters.[204] The options for harvesting bison offers more diverse way to make an income on their lands. It actually creates options and opportunities for income that currently do not exist.

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[200] IBMP, Annual Report of the IBMP July 1, 2009 through July 31, 2010, 10

[201] United States Department of Agriculture, Montana Agricultural Overview (2019).

[202] NPS *supra* note 174, at 14.

[203] IBMP *supra* note 138, at 12.

[204] Selling hunting rights would require a change in state hunting laws which do not currently allow for hunting tags to be sold or transferred.

This priority harvest right allows for the reintroduction of bison and other wildlife as well as fence removal while still allowing ranchers to maintain the landscape and a variation on their current way of life. It is not preserving the ranching way of life specifically, but it is also not so different as to erase the culture of working with large grazers and maintaining a relationship with the land.

Increased Tourism Revenue

For many of the areas surrounding Yellowstone National Park, a major source of revenue is tourism.[205] The Paradise Valley is no exception, annually tourism in Park County, MT (the county that the Paradise Valley is a part of) contributes $248.6 million and nearly 3,300 total jobs to the regional economy.[206] Visitation to Yellowstone National Park is the primary reason for non-residents to travel through the valley.[207] Trips to Yellowstone are driven in large part for wildlife viewing, so much so that it draws significant domestic and international tourism.[208] Allowing bison to migrate into the valley would create an opportunity to further capitalize on the pre-existing flow of tourists and it might also be generate its own tourists as well.

Creating opportunities for wildlife viewing along the road into Yellowstone could slow the flow of traffic and encourage people to patronize already existing local businesses. Slowing traffic would encourage more opportunities to expand existing businesses and open new businesses that cater to tourists by providing dining, lodging and camping, wildlife tours, art, and hunting with its associated services such as processing and taxidermy. If the valley embraced bison culturally, through bison themed festivals and events, it could lead to special branding, more tourism, and cottage industries specializing in all things bison. As these business opportunities arise, there will be of course a number of businesses that will grow or emerge as support in areas like infrastructure and maintenance. Leavenworth, Washington has done something akin to this by transforming their town around a theme, in their case a "Bavarian Village" theme.[209] Other examples of communities embracing thematic culture to attract tourism include places such as the wine country of California, or cherry growing region of Michigan.[210] Being known for bison could bring the kind of brand identity that could help project the valley into the minds of potential tourists around the world.

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[205] *See* Park County Montana & City of Livingston, Tourism Impacts on Gateway Communities, (2018); Jake Jorgenson, Jeremy Sage, Norma Nickerson, Carter Bermingham, Mandi Roberts & Christina White, Yellowstone National Park Visitor Study Report, Institute for Tourism and Recreation Research Publications 130-1 (2019).
[206] Kara Grau, *2019 Economic Contribution of Nonresident Spending in Montana Travel Regions and Counties*, Institute for Tourism and Recreation Research Publications 411, ii (July 2020) https://scholarworks.umt.edu/itrr_pubs/411.
[207] See larry Swanson, Key Trends, Dependencies, Strengths, and Vulnerabilities in Park County, Montana, and its Area Economy, pg 23-25, 53.
[208] Jake Jorgenson et al *supra* note 205, at 19.
[209] Atlas Obscura, Leavenworth's Bavarian Village, https://www.atlasobscura.com/places/leavenworths-bavarian-village, (last visited March 17, 2021).
[210] Sonoma County, California https://www.sonoma.com/ ; The cherry festival in Traverse City Michigan, https://www.cherryfestival.org/, *see* culture section of Wikipedia entry https://en.wikipedia.org/wiki/Traverse_City,_Michigan.

Maintain More Open Space

One of the major sources of conflict in the valley is between competing land use desires. On the one hand, ranching, agricultural, tourism, and long-time residents want to see land use remain largely pastoral, preserving viewsheds and open rural landscapes, and maintaining their livelihood.[211] On the other hand, real estate developers want to subdivide and fragment the landscape in order to build vacation mansions and hobby ranches for wealthy outsiders.[212] To local residents, land developers are seen as outsiders from Wall Street looking for opportunities to speculate on land development.[213]

In particular, some ranchers and agricultural growers have expressed concerns over this kind of land development fearing that their way of life is threatened by these developers who have them outgunned financially.[214] There is also perceived pressure coming from the environmental community, who are seen as wanting to use their lands exclusively for wildlife or to pressure them to not protect their livestock from elk or predators such as wolves.[215]

Bison range expansion offers a means for the community to maintain an open landscape and curtail speculative and destructive land development in the valley. This can be accomplished through a re-structuring of particular land uses while maintaining general land use values. Specifically, through the use of conservation easements, habitat leases, incentives to reunify fragmented lands, and zoning codes, privately owned land can be used to create and maintain large congruous open pasture for bison.

This re-structuring of land-uses could ultimately result in what would look like an unfenced "natural" or "wild" landscape. Doing this would create an opportunity for landowners to restore native plants communities and allow for wildlife to move unimpeded by fences, except where property or roads needed protection. This would in effect accomplish ecosystem restoration; as ungulates and prey species move into the valley, predators would follow, so would birds along with a whole host of other animals and insects. As the ecosystem is restored, valley lands would complete a migratory pathway for bison, from the Paradise Valley up to the highlands of the upper Lamar Valley and Mirror Plateau.

This is proposing essentially what is one of the fears of ranchers and agricultural growers, that environmentalists just want to use their lands for wildlife.

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[211] Threshold Podcast *supra* note 173, at 09:30-17:35; *See* Alison Bidwell Pearce, Uncommon properties Ranching, Recreation and cooperation in a mountain valley, PHD dissertation (August 2004).
[212] Todd Wilkinson *supra* note 199.
[213] *Id.*
[214] *Id.*; *See* Alison Bidwell Pearce *supra* note 211.
[215] Todd Wilkinson *supra* note 199.

This proposal calls for eliminating cattle grazing for wildlife use. While this is a fear that ranchers have about environmentalists, this plan addresses that fear by explicitly offsetting the loss of cattle production with a quota for harvesting bison. This then creates an incentive to encourage bison to be prolific, healthy, and for landowners to be able to maintain a lifestyle that is still harvesting from their land.

Some additional benefits of more open space and a restored ecosystem is that it could encourage tourism activity and generate revenue for landowners. It would also help the State of Montana to deal with habitat fragmentation which was identified as a problem area in its Montana Action Plan.[216] The American Prairie Reserve, a large privately funded ecosystem restoration project in north eastern Montana, has been working on a similar effort to reunify fragmented private property ownership into a large landscape scale grassland preserve.[217] This preserve is planned to fully connect several large areas of federal public lands in order to maximize the total restored ecosystem area.[218] The land ownership situation of the American Prairie Reserve is similar to the Paradise Valley, where large areas of federal public lands essentially surround the valley. What would be different in the Paradise Valley is the ownership of valley lands would not be a consolidated into single entity, rather property interests would be maintained and it would be a community effort.

Reconciliation with Native American Peoples

Not long ago, in the 1860's and 1870's, white prospectors and settlers aided by the United States Government took the lands of the Paradise Valley and surrounding areas from Native American peoples who had inhabited and used the lands for thousands of years.[219] These Native people were forced onto reservations with promises made in treaties with the Federal Government to grant tribes continued hunting and gathering rights on open and unclaimed federal lands.[220] These treaty rights have often been broken, ignored, and abrogated by Congress. The history of the relationship between the Federal Government, and by proxy white settlers, and Native American people is a dark, violent history riddled with duplicity, deceit, and racism. One aspect of that racism that continues to this day is the irrational and sometimes fanatical resistance to bison as wildlife, that white ranchers exhibit. While unsubstantiated, I think this is an expression of latent racism. Control over bison (or the lack thereof) is control over the ecosystem and expression of dominance over Native American people and the memory of their recent disposition from the lands now occupied by white people. Recently this has been highlighted by the action of Montana's governor, who voided a decision by Montana Fish, Wildlife and Parks that would have allowed the restoration of wild bison to parts of the state outside of the current tolerance areas.[221] In his surprise announcement, he stated that Montana FWP "didn't do right by farmers, ranchers and private property

[216] Montana Fish, Wildlife and Parks, Montana Action Plan October 2019, 18 (2019).
[217] American Prairie Reserve, Our Story, https://www.americanprairie.org/our-story (last visited April 15, 2021).
[218] *Id.*
[219] *See* American Indians and Yellowstone National Park pages 52-56.
[220] Eric T. Freyfogle, Dale D. Goble & Todd A. Wildermuth, Wildlife Law, 164-6 (2nd ed. 2019).
[221] Matthew Brown *supra* note 169.

owners" and that ""In its effort to spread bison across parts of Montana, didn't do enough to account for the impacts to local communities."[222] These phrases are loaded, and have been seen as gaslighting and coded speech for what amounts to the governor choosing ranchers over native peoples and furthering their prejudices against bison and Native Americans.[223] For such an important issue in the state and for Native People's, "Native American tribes. . .weren't consulted at all and had to hear about their own future plans for bison being introduced on treaty lands being thwarted via an Associated Press news article."[224] This lack of consultation with Native American Tribes in Montana before such a significant decision strongly suggests motivations beyond the reasons he stated.

There is of course outright racism as well. Something that is harmful and persistent to not only the intended victims of the racism, Native American people, but also to the people perpetrating racism and their community. Racism degrades the individual, callouses the mind and heart, and prevents the community from embracing the richness of culture, thought, and innovation that accompanies diversity. Restoring bison to the Paradise Valley offers an opportunity to address racism and begin reconciling the historic wrongs committed against Native American peoples.

Bison reintroduction creates these opportunities by creating a kind of starting fresh moment. This is a unique moment in time to take stock of the past and decide how to proceed into the future. If space is made for dialogue, and good faith efforts are made then through working together on the practical issues of managing bison, there is the opportunity to build trust and relationships over time. The various tribes would have to speak for themselves and assert how they would like to engage in this, if at all. That said, there is value in exploring how this could work. Some practical steps that could be taken on private lands and in general are provided next.

These practical steps include stakeholders recognizing the tribes who have historically occupied and used the valley prior to conquest and displacement. This recognition should include ensuring that tribes have a stake and interest in the valley bison. This would at a minimum, include being a full participant in wildlife management decisions ideally with the governing body paying the expenses of the tribal delegates. Ideally incorporation of Free Prior Informed Consent (FPIC) values would be included.[225] Other opportunities could include providing priority hunting rights and access across private lands, cultural recognition, creating a place in the valley's towns for cultural centers. Access and hunting rights could be granted privately though easements or through innovative state legislation recognizing, creating some kind of indigenous rights across all lands in the valley, and protection and repatriation of cultural artifacts, remains, and important sites to tribes.

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[222] *Id.*

[223] Adrian L. Jawort, *Indigenous Bison, People Both Belong in Montana*, Missoulian, (April 26, 2021) https://missoulian.com/opinion/columnists/online-only-opinion-indigenous-bison-people-both-belong-inmontana/article_0e4f363f-c9e1-53e6-9f7e-2ae40fe63dd7.html

[224] *Id.*

[225] See the discussion on Free Prior Informed Consent below in the section on collaborative governance.

On federal public lands Native Americans tribes should be involved in management decisions applying FPIC or through co-management, if that becomes possible either through congressional action or presidential direction.[226] Along with this, funding from the federal government could be allocated to hire and maintain tribal positions that are focused on co-management of bison and public lands in the Paradise Valley. Federal funding would guarantee that tribes have paid positions dedicated to this work and is a way to provide reparations that empower Native People to be able to effectively assert their interests.

Engaging in meaningful relationships through FPIC and/or co-management with Native American peoples offers a way to begin the process of reconciliation for the harms perpetrated against Native American peoples. Their inclusion into a collaborative governance scheme in the Paradise Valley would be essential to managing bison equitably.

Reduce Wildlife and Vehicle Traffic Conflicts

Vehicle and wildlife collisions are a current problem in the valley along the Highway 89 corridor. [227] It is such a problem that the has been identified by the State of Montana as a Priority Big-Game Winter Range and Migration Corridor.[228] Highway 89, they main road through the valley, runs down the center of the valley. The State of Montana recognized that vehicle and wildlife collisions were a source of wildlife mortality because of traffic on Highway 89.[229] The addition of more wildlife to the valley would exacerbate this problem.

In order remedy the current issue and prevent more collisions, bison reintroduction to the valley would need to be accompanied by roadway fencing and wildlife overpasses and underpasses. By installing this infrastructure vehicle collisions with all large wildlife species including elk, deer, pronghorn, and bison could be reduced. The benefits to the wildlife are obvious, people living and traveling in the valley would also benefit from this through potentially lower insurance premiums and greater safety while not having to reduce speed limits. In addition to this infrastructure, creating adequate pullouts along Highway 89 are needed. These pullouts could serve as wildlife viewing opportunities and could include interpretive signage educating travelers about the wildlife, Native American roles, infrastructure, human history, and the bison reintroduction.

Building infrastructure to meet the needs of wild bison and ensure driver safety in this area would contribute to construction jobs. Roads, road pull outs, fencing,

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[226] Monte Mills & Martin Nie, *supra* note 227.
[227] Montanans for Safe Wildlife Passage & National Parks Conservation Association, Paradise Valley Corridor Study US 89 Gardiner to Livingston Saving Lives by Incorporating Wildlife Passage Opportunities, (2019) (https://largelandscapes.org/wp-content/uploads/2019/06/US89-Gardiner-Livingston-brochure-and_map.pdf)
[228] Montana Fish, Wildlife and Parks *supra* note 216, at 16-8.
[229] *Id.* at 18.

wildlife over and under passes, and interpretive signage will all be needed. While these jobs may be short term, they will bring some work and money into the valley.

Expanding Hunting Opportunities

Bison and humans are inextricably linked though hunting. Up until the 1890's when bison were functionally exterminated from the United States, various Native peoples living on the plains and inter-mountain western U.S., hunted bison and relied on them for a potentially significant portion of their dietary needs, tools, and clothing.[230] This reliance on bison generated the significant cultural and spiritual connection to not only the bison but to wolves and the grassland ecosystems generally.[231] This relationship carried on for millennia in, what was as far as we know was, a sustainable relationship.[232]

If humans were able to sustainably harvest bison for millennia this should give us reason to pause and think of the possibilities that offers contemporary humans living in the same places. As mentioned earlier bison are prolific reproducers and each year hundreds of bison are already hunted, or culled in order to suppress the size of the bison herds in Yellowstone.[233] The current methods for doing this may be detrimental to the herd as the selection process is somewhat random and does not necessarily take the animals that would be the best to remove, from the standpoint of herd health and size. Further, the current hunting regime is unethical and causes conflicts at the current hunting locations. It is unethical because the bison are essentially funneled into a narrow area where the bison have little to no chance to escape and are essentially hit by a barrage of bullets as hunters lined up at the pinch point take their shots. It causes conflicts, because the current hunting areas are close to residential areas, roads, and recreational areas used by boaters, anglers, people picnicking, and hikers. The USFS has been working on these conflicts and has proposed several closures mentioned above that will help reduce these conflicts.

The problems with the current hunt could be resolved through the expansion of bison range and the creation of a comprehensive hunting plan throughout the Paradise Valley and the Gardiner Basin. To hunt bison from a much larger and geographically dispersed herd, this new hunting plan would account for the increase in space that the bison could spread out to, providing for some notion of fair chase, and allow hunters to take individual, clean shots, of a specific bison. This is not only important to avoid conflicts, but is also a more respectful method of hunting bison that honors the animal and fosters ethical hunting practices. A comprehensive plan would also allow for hunters to avoid conflicts with residential areas and other people by crafting hunting zones that give protective buffers to those areas and generating rules that ensure the safety of pedestrians and drivers.

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[230] *See* Peter Nabokov & Lawrence Loendorf *supra* note 21, at 35-100 199-236.

[231] *Id.*

[232] *Id.*

[233] NPS *supra* note 174, at 14.

Hunting and harvest of bison could also create the opportunity for healing of past wrongs against native peoples. Tribes could continue to exercise their treaty hunting rights but over greater areas of lands. If these expanded hunting rights included private lands through an easement or aboriginal title, it would be a significant recognition of these rights and these peoples. It could also create the opportunity for dialogue and relationship building between Native Peoples and white people through the collaborative management process. Congress could also pass legislation declaring National Parks, including Yellowstone National Park, unoccupied lands for the purpose of treaty rights with Native American Tribes. This would allow tribes with treaty rights to hunt, fish, and collect within Yellowstone and other national parks. This is currently prevented by the Lacey Act which explicitly protects wildlife within Yellowstone from any hunting.

Hunting would also eliminate the need for any further culling by the NPS This would be a win for the NPS saving resources, time, and energy that could be better spent elsewhere. It would also solve the dilemma the NPS faces over not to cull bison. This win for the NPS would also be a win for hunters who would now have expanded ability to hunt these prized animals outside of the park. If the NPS and Intertribal Bison Council wanted to continue the relocation program, that could be accommodated through the collaborative management arrangement discussed below.

A final benefit of expanded hunting is the creation of what I call bison culture. Hunters throughout time have a special relationship with their prey and celebrate their prey through art, spiritual practices, and celebrations. Here hunters would form an expanded seasonal surge of people into the valley. This would lead to expanded hotel stays, dining, and other associated services. If the valley also held festivals around this time it could encourage more tourism and demand for tourism related spending.

Creation of Bison Culture

Distinct localized culture is attractive and people love taking part in it. Look at Disney World for example where there is a theme park built around being able to take part in various ethnic cultures, or the variety of towns across the country that have rich ethnic themes and identity. There are also places like Pasadena known for its annual Rose Bowl Parade, Albuquerque and it's hot air balloon festival, Denver and it's Great American Brew Festival and beer culture. The Paradise Valley could capitalize on all the benefits that bison culture could bestow on it.

This culture could embody public displays such as parades and festivals. These could occur at important times of year such as hunting season, or a bison themed summer celebration could celebrate bison and the various bison crafts and industries. The festivals would make the valley a destination given people reason for specifically traveling and staying there.

One level below, these public displays would be a business culture that could arise from various crafts and businesses associated with bison. These businesses could include guiding for viewing or hunting, processing bison for meat and other resources,

crafts such as leather works, book binding, jewelry, art (direct or representational). It could also offer educational opportunities that could be marketed for commercial purposes through museums, "edutainment" or be a destination for field trips. This area could also become a place of study for bison ecology but also for bison management. This could provide the valley with a sense of pride and recognition for being innovative global leaders in this area of wildlife/human relations.

One more level down, bison culture would form within the individual and interpersonal relationships of people who live in the valley. This culture is developed from working directly with the animals, the land, and the ebb and flow of the people visiting, and the bison themselves. This would also involve community activities like planning events, governing their communities, and taking part in the management of bison themselves.

Collaborative Governance as a Solution

The above proposed solutions to expanded bison management in the Paradise Valley are predicated upon using a collaborative governance scheme to manage bison and the related activities surrounding bison. This form of self-governance allows stakeholders[234] in a community to intentionally work together to manage a common interest or conflict.

Allowing bison expansion into the Paradise Valley would require management. Rather than adhering to a hierarchical or top down management approach, with the public and local businesses being forced into a reactionary position, collaborative governance offers everyone a chance to be proactive and shape how bison expansion could happen and be managed. Through working together and being proactive stakeholders have the ability to pool expertise, plan, build out infrastructure, and find win-win solutions to issues that bison can create.[235]

Determining whether a collaborative approach is appropriate requires asking some important questions. As mentioned above, bison management could simply be left up to the various government agencies. However, that is a solution that does not allow the people in the valley and tribes to capitalize on the potential that collaborative governance of bison holds.

This process is started and initially driven by a convenor. A convenor is a person or entity that proposes the process and takes the initial steps of starting the collaborative process. Often this is an entity with some funds or resources to cover the initial costs involved. This has been entities like corporations, businesses, tribes, and

[234] A Stakeholder is defined as "a person who has the right and capacity to participate in the process; thus, anyone who is impacted upon by the action of others has a right to be involved." Christina Aas, Adele Ladkin, & John Fletcher, *Stakeholder Collaboration and Heritage Management*, 32 Annals of Tourism Research, 28-48 (2005).

[235] This approach is different from what is occurring on the American Prairie Reserve (APR). There, the APR is a single entity that is exerting itself and its vision on an area by buying up private lands. While these efforts are noble in their goals and purchase land willing sellers, the approach has created backlash in the area.

government. In this circumstance, it is hard to see who would be the entity to start the process and ensure that the process is truly a grassroots effort and avoids influence (real or perceived) that might poison trust in the process. An alternative convenor might be a small organization of interested community members. This would have the benefit of being comprised of people who are known to and a part of the community. This would help ensure that they would have a stake in the success of the process and the community. Ideally this small group would be representative of a spectrum of interests in the valley to show good faith that the process is one that seek to benefit a broad set of interests. It would be important to get representatives from interests that might be potential opponents of the process. The convenor would then need to take steps toward implementation.

In order to help carry this out, a six step process developed by, University of Wyoming Professor, Steve Smutko could be used.[236] This six step process would help the convenor determine the appropriateness of the process and how to proceed. The six steps are applied here as much possible, but it must be remembered that this process is ultimately one that will be driven by the convenor and community should it move forward. The six steps provided by Professor Smutko are as follows:

1) Determine the need for collaborative problem solving
2) Identify goals of the process
3) Conduct a situation assessment
4) Design the process
5) Select and modify the process
6) Monitor and evaluate the process[237]

While there are six steps, only the first three steps can be applied to this situation with the current assumptions. Steps four through six are derived from the actual process and the results of the first three steps. That said the first three steps will be addressed in greater detail and applied to this proposed situation while the last three steps will only be briefly covered in order to simply provide a short description of what those steps are.

Step One: Determining the need for collaborative problem solving

For step one, determining the need for collaborative problem solving and public involvement, Prof. Smutko's process provides "three kinds of rationales which are useful in determining if a collaborative processes is warranted."[238] These three rationales are the Instrumental Rationale, which looks at whether "stakeholder participation would facilitate policy formation and result in better "buy-in" to implement the policy;" the Substantive Rationale, which asks whether "stakeholder participation would lead to better decision making through sharing of valuable information, creating an opportunity for better understanding, and expanding the suite of possible solutions to the problem;"

[236] L. Steven Smutko, *Situation Assessment and Process Design*, 1 (2020).
[237] *Id.*
[238] *Id.*

and the Normative Rationale, which asks whether "stakeholder participation adds value to democracy via civic engagement and enhances democratic decision making."[239]

Instrumental Rationale	Substantive Rationale	Normative Rationale
Would stakeholder participation facilitate policy formation?	Does stakeholder Participation lead to better decision making?	Does stakeholder participation add value to democracy via
Does it also result in better "buy-in" to implement the policy?	Does it do so through: • sharing of valuable information • creating an opportunity for better understanding • expanding the suite of possible solutions	• Civic engagement • Enhancing democratic decision making

Source: L. Steven Smutko, *Situation Assessment and Process Design*, 1 (2020).

Applying these rationales to the case of bison range expansion as proposed, elements of all three rationales can be found. First, stakeholders in the valley would certainly be valuable and necessary to facilitate policy formation. This is because the stakeholders have various important different motivations and impacts of any policy being developed. Leaving some stakeholders out would miss these important distinctions. It would also likely harm buy-in for the policy implementation which will be critical for a plan of this scale and ambition to work. The stakeholders will be part of the solution and governance system rather than just being told what they have to do. Second the substantive rationale is present because if all of the stakeholder voices are heard, they will bring to the collaborative process important nuanced understanding of their positions, ecology or dynamics of their land and businesses. Bringing this nuance to the collaborative process will also help each other to understand their respective positions and potentially bring different possible solutions. Third, the normative rationale can be found in that the stakeholders, through this process, will be engaging in self-governance and working as a collectively as a community to manage bison.

The process additionally calls for "determining if the decision-making or convening organization is amendable to the participatory process."[240] While a convening organization might best be represented by a small community organization articulated above, the decision making organizations would be the State of Montana and its agency Montana Fish, Wildlife and Parks, APHIS, the U.S. Forest Service, and to a lesser degree the NPS. This is because they ultimately have the legal authority and responsibility over bison management decisions. To evaluate these agencies willingness to do engage in this process, two subsequent questions must be answered. The first is whether those

[239] *Id.*
[240] *Id.*

decision makers are willing to be flexible and open-minded regarding the process and the outcomes?[241] Here, there has been a willingness for these agencies to engage in the IBMP this shows that they are familiar with collaborative processes and know how to engage in them. Further, the federal agencies have been moving towards finding ways to better engage in collaboration generally to better manage their resources.[242] These things together suggest that federal decision makers are open to the idea collaboration and that state agencies, might be open to or at least willing to come to the table during collaborative processes.

The second question asks whether the decision makers will "recognize the legitimacy of public values."[243] Here that would mean determining if those above mentioned decision makers would be willing to accept ideas and values that they might not have considered or is not their initial choice.[244] Again, because these agencies have shown a willingness to engage collaboratively on the issue of bison management and because they have been able to adapt to new information and stakeholders, this seems to indicate a willingness to recognize public values. Further, the State of Montana would likely be more willing to accept these values if the community showed that this was what they wanted, particularly the cattle producers who have powerful and vocal advocacy groups that will likely voice strong opposition to any expansion of wild bison migration.[245]

These questions and their answers suggest that collaborative problem solving may be appropriate in this situation, though further investigation is necessary. Additionally, this kind of project due to its complexity, scale, impacts, and peculiarities of wild bison would almost require some kind of collaboration or intense public engagement and buy-in to be accomplished.

Step Two: Identifying the goals of the process

This step is very specific to the subject of the proposed collaborative process. The purpose of this step is to identify goals and barriers to realizing those goals.[246] Given that this process would be a community driven process the actual goals would need to be determined by the community through a collaborative governance organization.

That said, this paper assumes the goals of this process are to establish a free-ranging herd of wild bison that are allowed to migrate into and reside within the Paradise Valley as part of an enlarged tolerance area for wild bison. Other major goals would be to ensure that valley residents and Native American people benefit (See section above) from this change. To accomplish these goals a final goal would be

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[241] *Id.*

[242] *See* US Forest Service, USFS National Collaboration Cadre, (last visited April 15, 2021) https://www.fs.fed.us/emc/nfma/collaborative_processes/faq.htm.

[243] L. Steven Smutko *supra* note 236.

[244] *Id.*

[245] *See* Montana Stockgrowers Association, 2018 Policy Manual, 8-11 27 (2018).

[246] L. Steven Smutko *supra* note 236, at 2.

managing the bison in a sustainable way that allowed yearly harvest and a healthy ecosystem.

Some barriers to accomplishing these goals that can be determined now are as follows. First and foremost would be addressing concerns over brucellosis. This would require addressing the presence of cattle in the valley by either eliminating them entirely or finding ways to prevent interactions between bison and cattle. A second barrier would be addressing the cattle industry's resistance to expanded wild bison. They have shown considerable resistance to the idea and would likely fiercely resist the goals presented here.[247] A third barrier would be the number of stakeholders and the variety of positions they will have when starting this process. A fourth barrier would be finding funding to build out the necessary infrastructure. A fifth barrier exists to sales of bison because of brucellosis and restrictions on the sales of wildlife. An exception would also need to be made to hunting laws to allow the trading or sales of hunting tags or quota's to give valley residents flexibility to utilize harvest rights.[248] Sixth, a barrier might be the real estate development industry who could be resistant to efforts to prevent large areas of land being subdivided for vacation homes.

An assumption of the major goal of expanding bison range into the Paradise Valley is necessary for this paper and the barriers presented offer some likely barriers. However, additional goals and barriers to achieving those goals, ultimately rest with the community who will have to work together to decide what the actual goals and barriers would be. Once that is completed the goals and barriers identified in this step can be explored in depth by conducting a situation assessment.

Step Three: Conduct a situation assessment

Creation of a situation assessment is a process where a collaboration professional will make in-depth inquiries of the various stakeholders and about conditions the stakeholders face. That information is then used to produce a report that informs the stakeholders wanting to initiate and engage in collaborative governance about the various aspects of their particular circumstances and provides suggestions of how to best proceed. Completing a situation assessment would allow for the stakeholders to have a more complete understanding of the complex nature of this goal when they move on to the task of designing and implementing a collaborative process. It is the look before you leap step in the process that helps fill in missing details, deepen understanding, and eliminate assumptions. [249]

While collaboration can occur without a situation assessment, for a project of this scale it would be foolish not to do one as the situation is complex, it involves a large number of stakeholders, and the changes proposed would have significant effects on the lives of people involved. The creation of a situation assessment would also have a

[247] Montana Stockgrowers Association *supra* note 245.

[248] Some of the codes that would need to be addressed include MCA 2019 87-6-304, and MCA 87-6-305.

[249] L. Steven Smutko *supra* note 236, at 3-4.

number of secondary benefits (see table below), most importantly, allowing stakeholders to begin working together and developing trust.

Benefits to Performing Situation Assessment	Hazards of not performing a Situation Assessment
• Identifying stakeholders • Identifying similar on-going efforts • Identifying areas of conflict • Building trust and recognition of the sponsoring agency and the facilitator • Generating interest in collaborative problem solving and partnerships • Assessing the political climate • Determining educational needs • Identifying issues of importance • Identifying relationships and dynamics between stakeholders	• Leaving out key participants • Not addressing appropriate issues • Framing the issues in ways that will keep stakeholders from the table • Proceeding without sufficient commitments • Not having enough resources to complete the process

Source: L. Steven Smutko, *Situation Assessment and Process Design*, 3-4 (2020)

Equipped with the situation assessment and the working relationships that have been established through that step, the stakeholders must then move on to the task of actually designing the process.

Step Four: Design the process

This step entails taking what was learned from the situation assessment and applying it to the creation of the actual processes and procedures the group will use to engage in collaboration. This includes choosing "when, where, and how to meet, as well as who will be there."[250] This is an important step that must be carried out by the stakeholders. The importance of this process is to ensure that all stakeholders are involved, that they understand how the process works, trust the collaborative processes, and create realistic expectations.[251] Working through this step will also help separate issues of process from substance, something that will help the organization work through issues as they emerge while maintaining integrity of the organization.[252]

Some considerations here would be the ongoing nature of this process and the various jurisdictional issues involved. Some processes are time limited and focused around a single problem that once solved the process can then dissolve. This process is more complicated than most and would need to be indefinite with mechanisms for

[250] *Id.* at 1.
[251] *Id.*
[252] *Id.*

change built in. That change could include the ability to change bison management techniques, add or remove members, adapt to changes in law or jurisdiction.

A collaboration professional would be useful for this step to help guide the stakeholders and provide examples from other collaborative efforts. Being able to benefit from the experience of a collaboration professional could help save time and frustration. From this step forward the organization would then move on to selecting the process and putting it into action.

Step Five and Six: Selecting the process and monitoring and evaluating the process

With a situation assessment and a process designed, the stakeholders would then select and adopt a specific process to implement. Once selected the process would be implemented and a new management paradigm would begin. The final step is a feedback step that is meant to encourage the stakeholders to monitor the process and adapt it when it is necessary to do so.

This six step process provides a basic blueprint for how stakeholders in the Paradise Valley could move forward to implementing the idea of free ranging bison in the valley. This is not the only the only way forward, but it is one that offers a logical path based on real experience in these processes. Along with collaboration professionals, institutions such as the Ruckelshaus Institute at the University of Wyoming may be excellent resources for interested community members to engage with in developing a collaborative process. The interested community members would also benefit from looking to the successful and ongoing management efforts of the IBMP. The IBMP is an organization with an ongoing process that collaboratively manages wild bison. This suggests that it might be possible to expand the IBMP to a broader set of stakeholders and geographic area.

Special Frameworks for Collaboration with Native American Tribes

Native American tribes have a unique and specific history that must be considered when asking these people to engage in a collaborative process with entities that have historically been and continue to be hostile to their existence. Two frameworks have been developed to help do this, FPIC and co-management.

Beginning with a conceptual framework for engaging with tribes, the concept of FPIC should be given for all decisions that will have an impact on Native People. Here that would include at a minimum all management decisions that could impact the health of bison, size of bison herd, harvest of bison, hunting, and interpretation of bison and valley history. The FPIC concept acknowledges that indigenous peoples have a special relationship with their lands, it also explicitly gives decision making power to Native People. This concept is explored in detail by the Yellowhead Institute, "a First-Nation led research centre based in the Faculty of Arts at Ryerson University in Toronto, Ontario" that "generates critical policy perspectives in support of First Nation

jurisdiction" and "is focused on policies related to land and governance."[253] Their work on FPIC is based on the United Nations manual, *Free Prior and Informed Consent: An Indigenous Peoples' Right and a Good Practice for Local Communities,* that describes this concept to be generally applied to indigenous peoples around the world.[254]

In 2019, the Yellowhead Institute published what is known as the "Red Paper" which is a sort of big picture conceptual analysis of indigenous consent. In it they summarize the concept of FPIC as

> FREE – consent given voluntarily and without coercion, intimidation or manipulation. A process that is self-directed by the community from whom consent is being sought, unencumbered by coercion, expectations, or timelines that are externally imposed.
>
> PRIOR – consent is sought sufficiently in advance of any authorization or commencement of activities.
>
> INFORMED – the nature of the engagement and type of information that should be provided prior to seeking consent and also as part of the ongoing consent process.
>
> CONSENT – collective decision made by the rights holders and reached through the customary decision-making processes of the communities.[255]

This fairly straight forward concept departs from the current process of consultation considerably. Primarily, this framework shifts power and treats Native People as co-sovereigns. This means that engaging with tribes would be more than just a procedural box to check for projects. Under this framework, a decision to allow a project to go forward is not guaranteed, and even after a project is allowed to go forward, the tribe may withdraw consent and stop a project in the future if terms of the consent are broken.[256] Further before permission is given the tribes must make their decision free of influence and before a project is approved.[257] It reflects a true sovereignty and independence that treats Native American people with dignity and respect.

The Yellowhead Institute further describes their framework of consent as embodying four additional principles. First, that consent is restorative. For consent to be restorative it "promotes the active and intentional centering of Indigenous models of governance and law and moving away from Western frameworks and definitions."[258] This does not necessarily exclude band councils or tribal councils but promotes the

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[253] Yellowhead Institute, About Us, (last visited April 15, 2021) https://yellowheadinstitute.org/about/.
[254] Food and Agriculture Organization of the United Nations, *Free Prior and Informed Consent: An Indigenous Peoples' Right and a Good Practice for Local Communities* (2016) (http://www.fao.org/3/a-i6190e.pdf).
[255] Yellowhead Institute, *Land Back Red Paper*, 20 (Oct. 2019) (https://redpaper.yellowheadinstitute.org/).
[256] Yellowhead Institute *supra* note 255, at 21.
[257] *Id.*
[258] *Id.*

revitalization of authentic governance practices and institutions."[259] Second, it is epistemic, which means that it "accepts Indigenous knowledge frameworks and languages for understanding relationships to the land."[260] This may include Indigenous science, land management customs, obligations to the land and waters, or recognizing the land as having agency. This knowledge can be embedded in Indigenous law and governance."[261] Third, it is reciprocal, meaning that it "ensures that Indigenous people are not merely being asked to grant consent, but are determining the terms of consent."[262] It is "an active and enduring condition whereby consent may be revoked or the terms changed depending on the ability of outsiders to abide by the terms in good faith. This is less a process of governments obtaining consent, but an active maintenance of Indigenous authority."[263] Fourth, consent is legitimate which means that "decisions about granting or withholding consent generally require representatives perceived as legitimate by the community, and with a stake in the decision…to participate or be accommodated. A decision should not be made until the legitimate authorities consent."[264]

Another framework that has been gaining recognition is co-management. Co-management shares some of the principles with FPIC but is developed specifically for U.S. federal land management agencies and the federal laws that require consultation with Native American tribes.[265] In both frameworks, the status of tribes are elevated and engagement with them must be as actual co-sovereigns. Co-management goes beyond the current consultation paradigm where consultation requirements are routinely ignored, and both tribes and land management agencies are often understaffed and underfunded, and thus are unable to reply to and engage in meaningful consultation.[266]

In either case, Native American peoples need to be recognized as sovereign in action not just in words in order to make a collaborative process work and for the atonement for past wrongs to begin. Box checking processes will not accomplish this.

Fresh Start or Expand the IBMP

Having explored what a collaborative process could look like around the issue of bison expansion the IBMP needs to be addressed as it is already doing similar work to the south of the Paradise Valley. The question of whether a new collaborative process is necessary or whether the IBMP could incorporate expanded bison range into the Paradise Valley is discussed below.

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[259] Food and Agriculture Organization of the United Nations *supra* note 208; The Yellowhead Institute *supra* note 209.
[260] Yellowhead Institute *supra* note 255, at 21.
[261] *Id.*
[262] *Id.*
[263] *Id.*
[264] *Id.*
[265] Monte Mills & Martin Nie, Bridges to a New Era A Report on the Past, Present, and Potential Future of Tribal Co-Management on Federal Public Lands, (2020).
[266] Hillary Hoffman & Monte Mills, A Third Way Decolonizing the Laws of Indigenous Cultural Protection, 61-2 (2020).

The IBMP has been generally successful considering how it has navigated the disparate positions of the stakeholders prior to forming this organization. The fact that it has grown over the years and policy has been able to develop as new information was gathered shows that this organization is dynamic and has not stagnated or failed. That said the IBMP was created within a particular paradigm that has changed considerably since its inception and has a unique structure that allows it to work for the small number of partners. Collaboration in the Paradise Valley would be far more complex and involve and much larger number of stakeholders. This begs the question of whether the IMBP could be adapted to fit this broader collaborative purpose or whether a new collaborative governance scheme should be developed.

If the stakeholders in the Paradise Valley were to embrace collaborative governance of bison they would be faced with starting their own new collaborative governance scheme or seeking to be included in the IBMP. The IBMP as it stands is made up of only government agencies and one closely related non-profit group. When it was formed it was a way for these various federal and state agencies to address the seemingly intractable various cross jurisdictional management issues to avoid court ordered solutions, and learn more about the issues being raised by stakeholders.

The IBMP organization has been successful, however it is limited in certain ways that would make it difficult to use as an expanded collaborative governance structure. First is that it has a consensus decision making rule. While seeking consensus is a noble goal and is appropriate for some situations, it is not appropriate for all situations. In this circumstance involving a large number of potential stakeholders and the need to make decisions more frequently and quickly to adapt to changing business and management goals would necessitate a decision making process that can be done faster and without unanimous consent. Something like a plurality vote or majority vote would likely be more appropriate in this circumstance.

The other major problem with adapting the IBMP to new purposes would be that the stakeholders in the IBMP have developed relationships and norms that are specific to this organization. It works in a particular way with the stakeholders involved. Disrupting that might erode trust, the strength of these working relationships, and impact the work that it is doing. A major change could also break the continuity of the work the IBMP is doing.

For these reasons, avoiding disrupting the IBMP may be a better path forward. The establishment of a new collaborative governance organization would prevent the negative effects to the IBMP as listed above and would also make it possible for stakeholders to capitalize on opportunities to create an organization that is purpose built based on the specific needs and conditions of people in the valley.

One possible solution is that the IBMP could become a stakeholder in this new organization allowing federal and state governments to continue some work in that same body and have a spokesperson to represent that body with an organization in the Paradise Valley. Alternatively, the stakeholders may find dissolving their organization to

join a broader more comprehensive organization more worthwhile and conducive to their work.

In either case the process of establishing a collaborative governance organization must be considered. This can entail a variety of different methods and structures. Thankfully today we have the benefit of examples of past collaborative efforts and can learn from their successes and failures to make a scheme in the Paradise Valley more likely to succeed.

Conclusion

Yellowstone bison have made an incredible road to recovery and have shown an ability to adapt to new circumstances, proliferate, and subsequently push humans to learn to adapt to these animals and their way of life. Over the years through control, conflict, and finally through collaboration humans are starting to better understand how to not just live with these giants, but how thrive among them.

It is the goal of thriving that is the next step in our story with bison. The Paradise Valley offers one place where this could happen in a way that is a win-win for the people who live in the Valley, the Native Peoples with claims and connections to the valley, the bison, and the ecology.

Collaboration offers a way forward past the worn and tired conflicts of history. A new generation of people are finding ways to steward land in more wholistic ways that promise the bounty of community, prosperity, and ecological health. The Paradise Valley could be the place to capture that bountiful pulse of life flowing out of Yellowstone National Park.