MANUFACTURING YELLOWSTONE
Political Management of an American Icon

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The Institute of Political Economy (IPE) at Utah State University seeks to promote a better understanding of the foundations of a free society by conducting research and disseminating findings through publications, classes, seminars, conferences, and lectures. By mentoring students and engaging them in research and writing projects, IPE creates diverse opportunities for students in graduate programs, internships, policy groups, and business.
Part 1: Institutions and Incentives in Park Management

INTRODUCTION

The National Park Service (NPS) manages Yellowstone and all other national parks and monuments in the United States. In 2016, the NPS will celebrate the one-hundredth anniversary of its formation under the Organic Act. Although Yellowstone has served as the model of park management throughout the world, current management regimes may be producing undesirable outcomes in the park. The Institute of Political Economy (IPE) at Utah State University studied the institutions and incentives that have guided Yellowstone’s park management in its full report Manufacturing Yellowstone: Political Management of an American Icon, IPE found that drastic changes in NPS management can be explained by contradictions in the Organic Act of 1916 and the political incentives of park managers. This condensed report summarizes some of the key findings from the full report.

According to the Organic Act, the NPS is legally obligated to preserve Yellowstone’s ecological health while also promoting recreation in the park. The mandates for conservation and recreation can be contradictory because conservation often comes at the expense of recreation and vice versa. These two contradictory mandates have been interpreted differently over the course of NPS management, and these changing interpretations have altered Yellowstone’s ecosystems. Over the past century, the NPS has experimented with several management schemes in Yellowstone in response to political and public pressures under the vague wording of the Organic Act. Tradeoffs between recreation and conservation are ultimately political decisions dictated by the preferences and incentives of NPS managers in Yellowstone. These management regimes have affected the physical landscape and wildlife within the park.

When making ecological management decisions, NPS officials are constrained by political and economic incentives. The scientific field of ecology can explain the complex interactions between organisms and their environment, but ecology cannot tell us what the “best” ecological state is. Ecological management decisions can be widely considered better or worse than others, but these decisions are preference-based, not science-based. When the public and politicians express preferences for what they want Yellowstone to look like, park managers create policies to reflect those preferences.

Although popular culture characterizes Yellowstone as the epitome of wilderness, Yellowstone is not as “wild” as most people assume for two reasons. First, Native Americans lived in and actively shaped Yellowstone’s ecosystem for thousands of years. They burned the park’s forests and grasslands and hunted animals for their benefit. Second, Yellowstone is a human construction because NPS officials actively manage the park to fulfill the romantic notion of an untouched wilderness.

PUBLIC CHOICE

Public choice theory considers NPS officials as rationally self-interested individuals who work to perpetuate their personal preferences, as well as maximizing their budgets and power. Each preference leads to different policy decisions, and each policy decision results in different outcomes. As a bureaucracy, the NPS is subject to political pressures, like any other government agency.

Bureaucrats are different than elected officials because they do not have to respond to election pressures, meaning that bureaucrats have wide discretion in deciding what they can do within their bounds. Oversight is generally limited, which allows bureaucrats even more discretion. Using public choice theory, past and current NPS policies in Yellowstone are rational and explainable. Although the rationale for each decision may be explainable, however, the outcomes of policies often contradict what NPS officials may have intended. Because it is impossible for government officials to gather and process all relevant information or foresee all possible outcomes,
unintended consequences easily arise from even the most well-intentioned policies.¹

Laws serve as the rules for how much power bureaucratic agencies have and what decisions they can make. The Organic Act serves as the main set of rules for the NPS, but the law’s contradictions have given Yellowstone’s managers wide discretion to make policies with minimal criticism. NPS officials therefore change park policies when they have legal authority and political incentive to do so.

As rationally self-interested actors, NPS managers are able to use the Organic Act’s conflicting mandates for recreation and conservation to implement contradictory management practices that align with public and political preferences. In the past and currently, NPS policies promote conservation for certain aspects of the park, while simultaneously promoting recreation at the expense of conservation. Because public and political preferences have changed over time, NPS decision-makers have switched between conservation-based policies to recreation-based policies. NPS leaders respond to changes in public and political preferences to please congressional leaders who have the ability to enlarge the NPS budget and purview.

In the early days of the NPS in Yellowstone, NPS leaders were incentivized to promote recreation over conservation because that is what a majority of the public wanted. NPS officials are incentivized to bring in as many tourists as possible. By catering to what visitors want and showing Congress that park visitation is increasing, bureaucrats can increase revenue through entrance fees and federal budget allocations. After the environmental movement began in the 1960s, Yellowstone managers have focused less on recreation and more on conservation, which is what the public has demanded. Congress is incentivized to promote majority opinions due to reelection pressures, so Congress has also incentivized NPS leadership in Yellowstone to promote conservation over recreation.

**HISTORY OF YELLOWSTONE MANAGEMENT**

Since Congress established Yellowstone National Park in 1872, management practices in the park have undergone several shifts in response to political pressures. The actions of United States Army, National Park Service, and private citizens have produced today’s Yellowstone.

Before European arrival, humans inhabited the area in and around Yellowstone National Park for over 11,000 years. ² These native peoples actively managed Yellowstone’s resources to meet their needs, and their management shaped Yellowstone’s landscape and ecology. Archeological evidence points to native people hunting mammoths and other large mammals until they became extinct, showing that the first inhabitants had a profound impact on their surroundings. ³ The extinction of these animals illustrates that Native Americans were not “noble savages” who lived in harmony with an unchanging environment.

Because Native Americans shaped their environment, the Yellowstone of today looks different from the Yellowstone of 300 years ago. Current park managers have dramatically changed the historical Yellowstone ecosystem by focusing on maintaining an environment mostly lacking human influence. Yellowstone cannot be preserved in its historical state without considering the important role humans had in shaping the Yellowstone ecosystem.

The period from roughly 1800 to 1870 was a transitional period for Yellowstone as European-Americans displaced Native Americans. Because early European explorers brought Old World diseases to the Americas at first contact, much of the Native American

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population was wiped out. In addition to disease-caused decline, the European-American expansion across the United States displaced Native Americans from their traditional homelands and altered their traditional management strategies.

Without Native Americans burning the land or hunting wildlife, forests grew denser and animal populations increased. By the time Congress designated Yellowstone as a national park in 1872, Yellowstone’s ecology had shifted. After the park was designated, early visitors formed an incorrect impression of Yellowstone’s historical ecology. This misperception became the basis of management policies for the park.

Congress designated Yellowstone as a national park for two main reasons: first, railroad companies lobbied for a park designation to capitalize on tourism potential; and second, scientific expeditions persuaded Congress that the area was geologically unique and deserved protection.

Despite the designation, Congress did not provide specific laws and regulations for how the park was to be managed. Between 1872 and 1886, Congress allocated insufficient funds and gave minimal guidance on how the park was to be managed. With limited power and funding, the park was left vulnerable to poachers and ineffective management.

In 1886, Congress denied funding to Yellowstone’s managers after several years of poor performance. When the funds were denied, Secretary of the Interior Lucius Lamar called on Secretary of War William C. Endicott for assistance. The Secretary of War deployed troops and assumed control of Yellowstone on August 20, 1886. The army’s success in enforcing hunting bans and stamping out poachers had the unexpected consequence of allowing elk populations to grow exponentially. The army’s management exacerbated the population problem through systematic extermination of natural predators such as wolves, mountain lions, and coyotes. Without hunting pressure, the elk population boomed, and the amount of food available in winter was quickly exhausted. To prevent a mass starvation of elk, the U.S. Fish and Wildlife Service set up a feeding program nearby in Jackson Hole.

THE ORGANIC ACT

In August 1916, President Woodrow Wilson signed the National Park Service Organic Act into law. The Organic Act created the National Park Service and outlined the agency’s responsibilities. The writers of the Organic Act imposed vague and contradictory mandates on park managers because they disagreed about whether national parks should be used primarily for recreation or preservation. The Organic Act stipulates that the National Park Service’s purpose is “to conserve the scenery and the natural and historic objects and the wildlife” in national parks, while also leaving the them “unimpaired for the enjoyment of future generations.”

In 1918, the vague wording of the Organic Act provoked the Director of the NPS to ask the Secretary of Interior for guidance on how national parks should be managed. The secretary provided three general principles for NPS park management: (1) all parks must

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5 Ibid.
7 Ibid.
be “maintained in absolutely unimpaired form”; (2) parks must be preserved for the “use, observation, health, and pleasure of the people”; (3) “the national interest must dictate all decisions affecting public or private enterprises in the park.”

Park managers became more confused after these requirements were published because the vague wording led to broad interpretation. Determining the “national interest” was problematic because the term is a subjective, preference-based political decision. NPS leaders did not provide guidelines on how to define the national interest. Because of this, the NPS has experimented with many different management strategies over time in Yellowstone.

Contradictory mandates in the Organic Act give the NPS considerable discretion in how they manage national parks. Congress did not specify in the Organic Act how the NPS was meant to conserve the parks while also providing for recreation and enjoyment. The paradoxical mandate to promote conservation and recreation enlarges the NPS’s decision-making power because nearly any decision falls in one of these two categories. The NPS in Yellowstone has experienced drastic shifts in its management styles over the past century as different officials have responded to evolving scientific knowledge and political pressures.

**CONTRADICTORY MANAGEMENT STRATEGIES OVER TIME**

The NPS has employed several types of management strategies during the mid-twentieth century that were meant to control the wolf, bear, elk, and bison populations. These management policies changed drastically several times as the public’s values and perceptions of Yellowstone shifted. Each policy change altered the park’s wildlife and ecosystems. Many of these policy changes illustrate how NPS managers respond to contemporary scientific understanding and political preferences.

Some NPS policies have promoted conservation of certain aspects of the park, while at the same time promoting recreation at the expense of conservation in other ways. Over time, as public and political preferences have changed, some policies have been completely reversed to reflect these preference changes.

**FIRE MANAGEMENT**

Yellowstone’s native hunters-gatherers actively set fires in Yellowstone, which helped reduce fuel buildup. Starting in the late 1800s, the army and the National Park Service actively suppressed fires because they thought fire was harmful to park resources. Park managers did not recognize the ecological importance of fire in Yellowstone’s ecosystem. NPS officials faced public pressure to suppress fires because tourists did not want to go into a burnt or burning park. The suppression policy culminated in the massive 1988 fires that burned one third of the park. A new fire plan was enacted in 1992 that included a “let-it-burn” policy, allowing more natural fires to burn, as well as permitting some prescribed burns.

Yellowstone’s fire management over the twentieth century did not reflect its historical fire regime. Current wildfire management allows lightning-ignited fires to burn, but all human-caused wildfires are suppressed. The current fire management plan does not completely reflect the historical burning of Yellowstone by Native Americans, but allowing natural fires to burn more closely reflects Yellowstone’s historical fire regime.

**FISH MANAGEMENT**

Early park managers believed the best way to manage Yellowstone was to make it more appealing to the general public. Managers tried to create a better park experience for visitors by stocking Yellowstone’s waterways with popular fish. Early park managers did not recognize the ecological consequences of introducing non-native species to Yellowstone.

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Introducing lake trout, among other species, has unintentionally altered the Yellowstone ecosystem.

The NPS now acknowledges that invasive trout populations harm other animals in the food chain. Invasive trout kill native cutthroat trout, which is problematic because many animals are dependent on native cutthroats for survival. Lake trout live and spawn deeper beneath the water’s surface than cutthroats, making it more difficult for fish-dependent species to eat. The combined effect of lake trout preying on cutthroat and living deeper beneath the surface allows lake trout populations to increase while cutthroat populations plummet.

Despite initially introducing these invasive species, the NPS is now trying to remove non-native species. Beginning with the environmental movement of the 1960s, NPS management across the country has focused on returning parks to a pre-European state. Earlier public preferences focused on fish that were more enjoyable to catch, but the NPS has changed policies to reflect the public’s demand for Yellowstone’s “original” state.

WOLF MANAGEMENT

Wolf management in Yellowstone made a complete policy reversal over the course of the twentieth century. NPS officials actively sought to exterminate wolves from the park up until the 1950s, but decades later, NPS officials contradicted their original management plan by reintroducing wolves to the park.

Early park managers thought that wolves contributed to the “wanton destruction” of animals, which the Organic Act prohibits, and threatens recreational opportunities. In the early twentieth century, park visitors generally viewed wolves as dangerous. Starting in 1914, the army began to kill wolves in Yellowstone to protect other animals. After its creation in 1916, the NPS continued the army’s practice of killing wolves. By the mid-1920s, the NPS had killed an estimated 136 gray wolves, and by the 1940s, all resident wolf packs were eliminated. After decades without wolves in the park, the NPS worked with the Fish and Wildlife Service to reintroduce wolves to Yellowstone in 1995. The reintroduction policy was both a response to the Endangered Species Act and new public perceptions favoring wolves.

BEAR MANAGEMENT

Prior to 1970, the NPS allowed and even encouraged park visitors to closely interact with and feed bears. Many bears became dependent on humans because they received food directly from visitors and from trash dumps throughout the park.

The environmental movement of the 1960s raised concern for the unnatural diet of Yellowstone’s bear populations. Yellowstone’s bear populations also injured and killed many visitors, prompting park managers to change bear management policies. In 1970, the NPS adopted a new management plan for the park’s bear population that prohibited feeding the bears, mandated proper storage of food, and eliminated open dumps within the park. In 1975, Congress listed the grizzly bear as threatened under the Endangered Species Act, and the NPS created bear management areas within Yellowstone to reduce human interactions with bears.

The history of bear management in Yellowstone shows how NPS management has changed over time due to changing preferences. Human interaction with bears was unrestricted in Yellowstone to promote the recreation requirement of the Organic Act. The NPS then changed their management policy to try to restore the natural state of bears as wildlife, as well as to reduce visitor injuries, by reducing human interactions that changed bear behavior. This change in

management policy further illustrates the contradictory nature of the Organic Act, which allows park managers to completely reverse management styles.

**ELK MANAGEMENT**

In the early days of NPS management, the agency was concerned that overly large elk populations would overgraze Yellowstone and deplete available forage. The NPS relocated almost 58,000 elk from the park between 1935 and 1961 to avoid overgrazing. NPS rangers soon realized that trapping alone was not enough to control elk populations in the park. As a result, in 1949 live trapping operations were augmented with the euthanasia of excess numbers of elk. The NPS established population quotas for elk, using livestock management formulas, and the excess animals were killed. Between 1949 and 1968, rangers in Yellowstone killed more than 13,500 elk.

In the late 1960s, mass media, including television and newspapers, reported on the park rangers killing elk in Yellowstone. The combination of mass media and the environmental movement sparked public outcry against the killing of elk, creating a public relations nightmare for Yellowstone’s managers. In addition to the general public, sports hunters aggressively attacked the policy of killing excess elk because the hunters wanted to kill the elk themselves. These public pressures prompted a Senate hearing in 1967. In the hearing, the Director of the NPS and Secretary of Interior agreed to stop killing elk in Yellowstone. Later that year, the NPS completely reversed policies from active elk population management to hands-off population management. Political pressure, not ecological science, was the main driver of the policy reversal in the 1960s. After the policy shift, elk populations grew rapidly, altering the composition of Yellowstone’s ecology.

**CONCLUSION**

Yellowstone’s management is largely a function of the institutions and incentives that guide NPS decision-makers. Although the NPS is bound to certain management strategies through law, the vague and contradictory nature of the Organic Act gives the agency considerable discretion to adopt experimental management strategies. These management strategies have changed over time in response to changing public and political preferences with both positive and negative consequences for Yellowstone’s ecological health.

**Part 2: Natural Regulation Management**

**INTRODUCTION**

For over a century, Yellowstone has served as the model of park management throughout the world, but some current management practices may be harming the park’s ecology. One management strategy, called natural regulation, has had far reaching impacts on Yellowstone. The Institute of Political Economy (IPE) at Utah State University examined the effects of natural regulation management in Yellowstone. In its full report *Manufacturing Yellowstone: Political Management of an American Icon*, IPE found that natural regulation management has harmed

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Yellowstone’s rangeland and river ecosystems by allowing animal populations to grow artificially large.

HISTORY AND EVOLUTION OF YELLOWSTONE MANAGEMENT

Native Americans actively shaped Yellowstone for more than 11,000 years. Native Americans hunted animals and intentionally burned Yellowstone’s forests and grasslands. Setting fires aided them in hunting, defense, and insect reduction. Due to Native American influences in Yellowstone, forests were much less dense and animal populations were much smaller than they are today.

The arrival of Europeans in America changed Yellowstone’s ecosystem by displacing Native Americans. Without Native American management, forests grew denser and animal populations rose. Congress designated Yellowstone a national park in 1872, and for the next decade, park managers struggled to manage the park. After Congress recognized the failures of early park managers, the army was sent to manage Yellowstone in 1886.

The army’s management of Yellowstone had mixed results. Army officials protected the bison from extinction. The army, however, eradicated predators like mountain lions and wolves, allowing bison and elk populations to boom, which led to overgrazing.

In the early 1900s, national parks across the country were managed by different government agencies. The Organic Act of 1916 created the NPS to unify park management, better protect the nation’s natural resources, and increase park revenue. In Yellowstone, the NPS adopted the practice of killing and relocating excess elk populations to limit overgrazing.

NATURAL REGULATION PHILOSOPHY AND ITS UNINTENDED CONSEQUENCES

In the 1960s, mass media reported on the elk reductions in Yellowstone, sparking a public outcry against active population management. Rumors surrounding a subsequent congressional hearing suggested that Congress would defund the NPS if they did not stop killing elk in the park.

In response to these political pressures, the NPS completely changed their management policy in 1967. Natural control was the NPS’s first attempt at hands-off management in Yellowstone. Natural control theory asserted that predators would sufficiently control other animal populations without human intervention.

Reference:


late 1967 through 1970, the NPS continued to employ the hands-off management of natural control.

Beginning in 1970, the NPS changed from natural control management to natural regulation management. Natural regulation is contradictory to natural control because natural regulation assumes that predators were never the primary factor that limited wildlife populations. Natural control, a top-down approach to ecology, assumes that predators at the top of the food chain are the primary force that shaped population dynamics. Natural regulation, a bottom-up approach to ecology, states that wildlife populations are regulated by the availability of food.41

Over the past several decades, the term "natural regulation" has adopted several definitions. The original definition strictly referred to the hands-off management practice that asserted that food availability, not predation, was the main control for ungulate populations. Now, natural regulation has more commonly come to mean any management practice that does not involve direct manipulation by humans, regardless of the top-down or bottom-up view of population dynamics. In this report, we refer to natural regulation with the wider definition of general hands-off management.

Natural regulation has allowed wildlife populations to grow substantially and overgraze the park’s rangeland. Natural regulation fails to address the importance of humans’ historical influences on Yellowstone’s ecosystem. After 50 years since implementation, evidence shows that natural regulation has been one of the principal causes for the decline in rangeland and river health in Yellowstone National Park.

OVERPOPULATION OF ELK AND BISON

Historical evidence shows that elk and bison were not abundant in Yellowstone prior to European-American influence. When the NPS ceased active population management, elk and bison numbers grew to unprecedented levels and overgrazed rangeland. Photo 1, taken near Yellowstone’s North Entrance, shows an exclosure around rangeland vegetation. The NPS began constructing exclosures to study the difference between rangeland quality with and without the presence of grazers. The fence of the exclosure can be seen running diagonally near the center of the photo. To the right of the fence, the exclosure contains a more productive parcel of rangeland with taller grass and sagebrush. In the foreground and to the left of the fence, sagebrush and grass are much less dense where they have been overgrazed. The exclosures in northern Yellowstone provide stark evidence of the effects of grazing on Yellowstone’s rangeland.42

Photo 1.43

Overgrazing has limited the preferred food supply of elk and bison, which has forced them to rely on alder, aspen, and willow trees.44 With such heavy grazing, these trees have been unable to reproduce in many areas of the park for decades, which has reduced the genetic diversity and overall health of the forests.

Photo 2 and Photo 3 show an exclosure of aspens near Junction Butte, which is located near the Tower-Roosevelt Junction in northeastern Yellowstone. The exclosure was established in 1962.45 Photo 2 shows the extent of damage to the rangeland caused by overgrazing. To the right of the fence, a dense aspen

41 Ibid, pp. 10-15.
grove grows where grazers have not been able to enter. Without wildlife, the plants have been able to grow undisturbed. The left half of the photo shows unprotected rangeland. Aspens generally reproduce asexually by extending offshoots underground. These aspens have been unable to reproduce outside of the exclosure because grazers eat them before they can reach maturity. If grazing pressures were reduced, parts of Yellowstone’s rangeland would more closely resemble the aspen grove within the exclosure.

Photo 3 shows the Junction Butte Exclosure in relation to its surroundings. All of the aspens visible are completely within the protection of the exclosure. The surrounding grassland has been heavily grazed.

Photo 2.

Photos 4 and 5 show repeat photographs of the aspen stand at Junction Butte Exclosure taken 24 years apart. The first photo is from September 1962, and the second photo was taken from the same viewpoint in July 1986. In the first photo, four mature aspens are visible to the left (outside) of the exclosure fence. By 1986, the four mature aspens outside the exclosure had died off, but a mature aspen stand has grown inside the exclosure. The lack of growth outside the exclosure is more evidence of overgrazing.

Photo 4.

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Willows have also declined due to overgrazing, which has caused beaver populations to plummet. Without beaver dams, many of Yellowstone’s ecosystems have become drier because beaver dams have historically formed and maintained Yellowstone’s floodplains, water table dynamics, and vegetation composition.\textsuperscript{51}

A 1927 account of Yellowstone stated “beavers occur in practically every stream and pond” and estimated about 10,000 beavers in the park during the early 1900s. In 1930, a park visitor claimed that “beavers are found along almost every stream,” but also noted that elk were grazing on the beavers’ food supply of young aspens and willows. In 1935, two park visitors concluded that beavers were “endangered through the destruction of aspen and willow on the over-browsed elk winter ranges.”\textsuperscript{52}

A widely-cited 1955 study by Robert Jonas found no beavers or any recent beaver activity on Yellowstone’s northern range.\textsuperscript{53} Jonas concluded that a lack of preferred food plants, poor water conditions, and natural sediment polluting beaver ponds led to the decline in beavers. He also concluded that the lack of food was a result of elk overpopulation more than anything else, noting that poor water conditions and siltation of beaver ponds were caused by overgrazing. In 1968, D. T. Patten of Arizona State University added more evidence that overgrazing was the fundamental problem when he found that willows on the Gallatin River only declined in places where wintering elk were most heavily concentrated.\textsuperscript{54}

\textbf{Photo 6, taken in 2015, shows the portion of the Junction Butte Exclosure where willows are growing. Willows grow densely inside the fenced exclosure, but they cannot regenerate outside the exclosure due to grazing pressures from elk and bison. The muddy area in the foreground is evidence of heavy animal traffic.}

\textbf{ADDRESSING THE OVERGRAZING PROBLEM}

In the mid-1990s, the NPS reintroduced wolves to Yellowstone as part of the Endangered Species Act, but also as an attempt to reduce elk and bison populations through predation. Although the elk population appears to have declined since wolf reintroduction, the wolf population is now on the decline. The unpredictable nature of the wolf population is problematic because park managers

\textsuperscript{50} Kay, C. E. (2001). Long-Term Aspen Exclosures in the Yellowstone Ecosystem. \textit{USDA Forest Service Proceedings.}


\textsuperscript{52} Ibid.


cannot accurately predict how wolves will control the elk population.

Wolf reintroduction may be helping aspens and willows to successfully reproduce in some isolated locations, but there is not enough evidence to suggest that aspens and willows are recovering fully throughout the park.56 Wolves may not be a sufficient means to reduce the elk population for a full restoration of Yellowstone’s willow and aspen communities.

Photo 7 shows an official NPS sign in Lamar Valley that illustrates how wolves have supposedly restored the Lamar River’s ecology. Photo 8 shows the Lamar River, which has minimal, if any, signs of willow or aspen regrowth. The NPS sign portrays how natural regulation was intended to work, but the actual outcome of natural regulation is much different than the theory would suggest. Wolves have not sufficiently reduced the numbers of grazers in the park because humans, not wolves, served as the top predator in Yellowstone for millennia.

Although the NPS has generally followed passive management since the late 1960s, the agency contradicts this management philosophy when it is politically expedient. The NPS introduced the Interagency Bison Management Plan (IBMP) to reduce the bison population. The IBMP is a cooperative effort of nine government agencies and local tribes to prevent bison from spreading brucellosis to local cattle outside the park.57 Although highly controversial, the NPS sent 507 bison from the Stephens Creek Capture Facility for slaughter in the winter of 2015-2016.58 The NPS is currently spending about $1.2 million every year to implement the IBMP in Yellowstone, despite their hands-off management policy. There have been no reported cases of bison transmitting brucellosis to cattle, however, suggesting that this active management may be beneficial. Conflicting political pressures have led the NPS to actively manage bison populations while taking a hands-off management approach to elk.

CONCLUSION

The National Park Service has mischaracterized Yellowstone as a primeval wilderness and has

overlooked thousands of years of active Native American land management. Yellowstone coevolved with humans who structured Yellowstone’s ecosystem according to their needs. European expansion displaced Native Americans and limited their ability to interact with Yellowstone. The mistaken belief that Yellowstone was untouched by humans, combined with political pressures, drove the adoption of hands-off management.

Natural regulation has allowed several animal populations, especially elk and bison, to grow rapidly, which has reduced the productivity of Yellowstone’s rangelands. Aspens and willows in many areas of the park have been unable to reproduce for decades. The loss of aspens and willows has drastically reduced beaver populations, and beavers are virtually nonexistent in many parts of the park. With few beavers to build dams, the ecological benefits of beaver ponds are severely limited. Lastly, the NPS regularly contradicts their policy of natural regulation by engaging in active management when it is politically expedient to do so. If the NPS continues to support natural regulation, the rangeland and river ecosystems will not reflect their historical state.