

Briefing Statement FY 2018

Bureau: National Park Service
Issue: Bison Abundance under the Interagency Bison Management Plan
Member: State of Montana, Montana Congressional Delegation
Issue: Yellowstone National Park

Key Points:

- When the Interagency Bison Management Plan (IBMP) was negotiated (late 1990s), there was pressure to prevent cattle from being infected with brucellosis to maintain interstate movements and trade agreements without additional testing. Litigation brought against Federal Government by state of Montana requested the NPS to “limit the number of bison that migrate out of the park and in to Montana”. A population target of 3,000 bison was chosen to reduce migrations outside the park to prevent brucellosis transmission. At the time, elk were considered unlikely to mingle with cattle and transmit brucellosis, bison were considered the primary risk of brucellosis transmission to nearby cattle herds.
- We now know brucellosis is sustained independently in elk populations inhabiting about 17 million acres, whereas bison inhabit about 1.5 million acres near the core. Elk commonly mingle with livestock and have transmitted brucellosis to them 27 times since 1998. **No transmissions from bison to cattle have been detected.**
- A 2006 adjustment to the IBMP clarified “a population of 3,000 bison is defined as a population indicator to guide implementation of risk management activities, and is not a target for deliberate population adjustment.”
- During 2006-2017, spatial and temporal tolerance for more untested bison in Montana was increased several times due to fewer cattle adjacent to YELL, desire for larger migration to public lands outside the National Parks to facilitate public and treaty harvests, public desire by wildlife conservation advocates to treat wild bison like we treat all other migratory ungulates and allow them to disperse on to public lands outside the park, changes in APHIS regulations regarding brucellosis class-free status that reduces marketing constraints on livestock industry, recognition that bull bison are not transmission vectors, and successful active management of bison at the National Park boundary area to reduce conflicts with landowners and livestock operators.
- Bison numbers were allowed to increase and averaged ~4,200 during 2001-2017 (range ~2,900-5,500).

Background:

- 2000: The goal of the IBMP is “to maintain a wild, free ranging population of bison and address the risk of brucellosis transmission to protect the economic interest and viability of the livestock industry in Montana.”
- 2002: An independent review of grazing and grasslands in northern YELL by the National Academy of Sciences concluded the park was not overgrazed and managers could continue to allow numbers of ungulates to fluctuate in response to predators, resource limitations, weather, and hunting outside the park.
- 2004-2005: The State of Montana completed environmental evaluations for a public bison hunt and hunting was included in the IBMP as a management action outside YELL.
- 2005: An independent evaluation of the food-limited carrying capacity for Yellowstone bison was completed by Colorado State University and the U.S. Geological Survey. With about 5,000 elk, the model predicted a carrying capacity of more than 8,000 bison. With about 20,000 elk, the model predicted a capacity of about 6,200 bison. Currently, there are about 8,000 northern Yellowstone elk; 80% of which winter outside YELL.
- 2006: Montana recognized the treaty rights of the Salish and Kootenai tribes and the Nez Perce tribe for harvesting bison on open and unclaimed federal lands adjacent to YELL. Treaty rights of the Shoshone-Bannock, Umatilla, Yakama, and Blackfoot tribes were recognized during 2009-2018.
- 2006: The IBMP was adjusted to increase tolerance for bull bison in Montana because there is virtually no risk of them transmitting brucellosis to cattle.
- 2008: The State of Montana signed a 30-year livestock grazing restriction and bison access agreement with the Church Universal and Triumphant, Inc. to remove livestock from the Royal Teton Ranch, located just north of the park boundary. The National Park Service provided \$1.5 million to implement the initial payment for this agreement and allow progressively increasing numbers of bison to use habitats north of the park boundary, including portions of the Royal Teton Ranch and the Custer Gallatin National Forest.
- 2009: A peer-reviewed article by YELL staff proposed maintaining a bison population that varies on a decadal scale between 2,500 and 4,500 animals to satisfy the collective long-term interests of stakeholders, as a balance

between the park's forage base, conservation of the genetic integrity of the bison population, protection of their migratory tendencies, brucellosis risk management, and other societal constraints.

- 2010: APHIS promulgated a regulatory rule that greatly reduced the risk of Montana losing its brucellosis-free status and experiencing associated economic costs by dealing with outbreaks in cattle on a case-by-case basis and eliminating the need to remove exposed herds and test across the entire state.
- 2011-2012: Several adjustments were made to the IBMP to substantially increase spatial and temporal tolerance for bison migrating north and west of YELL during winter.
- 2015: The Governor of Montana approved a greater distribution of wild bison on some lands near YELL, including year-round in some areas, which he concluded would not increase the risk of brucellosis transmission to cattle.
- 2016: An independent analysis of genetic data determined all cattle herds infected with brucellosis in the Greater Yellowstone Area were from elk, not bison. There were five distinct strains of *Brucella abortus* bacteria, four of which were associated with elk and originated from the feed grounds in Wyoming. Brucellosis was self-sustaining in elk and spreading at an increased rate in populations outside of the feed grounds. As a result, control measures in bison likely would not affect the dynamics of unrelated strains in elk populations.
- 2016: At meetings with the State of Montana regarding alternatives for a new Environmental Impact Statement (EIS) regarding bison management, there was agreement in principle to average 4,200 bison (summer count) over 5-year moving windows.
- 2017: The National Academies of Sciences, Engineering, and Medicine issued a report revisiting brucellosis in the Greater Yellowstone Area and concluded there was clear evidence that brucellosis transmission to livestock has come from infected elk and, as a result, aggressive control measures in bison seem unwarranted until tools become available that would simultaneously allow for an eradication program in elk.

Current Status:

- A total of 4,816 bison were counted in YELL during summer 2017, including 3,969 in northern YELL and 847 in central YELL. About 1,173 bison were removed from the population this winter, primarily in northern YELL. Thus, biologists expect about 4,300 bison after calving, which will be verified with a count in late July.
- Under the IBMP, there has been no detected transmission of brucellosis from wild bison to cattle, while a viable, wild population of bison has been sustained in YELL.
- Preparation of a new EIS for the IBMP has stagnated in recent years due, in part, to a lack of commitment, funding, and staff participation from the State of Montana and some cooperators. The Superintendent of YELL intends to reinstate discussions regarding whether this effort should be rekindled.

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