

May 10, 2017

**PETITION TO ADOPT A SPECIAL RULE UNDER THE ENDANGERED SPECIES ACT
TO AUTHORIZE IMPORT OF LAWFUL HUNTING TROPHIES OF THE
CANADIAN WOOD BISON (*BISON BISON ATHABASCAE*)**



Secretary of the Interior Ryan Zinke
Department of the Interior
1849 C Street, N.W.
Washington, DC 20240
exsec@ios.doi.gov

Acting Director
U.S. Fish and Wildlife Service
1849 C Street, N.W.
Washington, DC 20040

Bryan Arroyo
Director of International Affairs
U.S. Fish and Wildlife Service
5275 Leesburg Pike, MS:IA
Falls Church, VA 22041
bryan_arroyo@fws.gov

Janine Van Norman
Branch of Foreign Species
U.S. Fish and Wildlife Service
5275 Leesburg Pike, MS:ES
Falls Church, VA 22041
janine_vannorman@fws.gov

Petitioners:
Conservation Force
3240 S. I-10 Service Road W., Suite 200
Metairie, LA 70001 USA
(504) 837-1233
cf@conservationforce.org

Yukon Outfitters Association
103 Main Street, # 6
Whitehorse, YT Y1A 2C7 Canada
(867) 668-4118
info@yukonoutfitters.net

Dear Secretary Zinke:

Pursuant to 16 U.S.C. § 1533(d), Conservation Force and the Yukon Outfitters Association (“Petitioners”) respectfully submit this Petition requesting the U.S. Fish and Wildlife Service (“FWS”) adopt a special rule for the threatened-listed Canadian wood bison (*Bison bison athabascae*). The delisting of wood bison at the seventeenth Conference of the Parties (“CoP”) to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (“CITES”) necessitates an exemption before trophy imports

can continue efficiently. Therefore, Petitioners respectfully request a rule which authorizes import of wood bison hunting trophies without requiring issuance of FWS import permits.

As discussed below, the FWS has repeatedly recognized that lawful hunting is *not* a threat to wood bison. International trade in wood bison trophies is extremely limited—a handful each year. However, the lawful, closely-monitored harvest is used to advance management and recovery objectives. The trade is nominal but important to the species' long-term recovery. In keeping with the intent of the CITES delisting, involvement of U.S. hunters should be facilitated, and not obstructed by unnecessary regulatory barriers. Authorizing the import of wood bison hunting trophies without a permit will allow U.S. citizens to participate in this hunting and lessen the permitting burden on the FWS.

SUBSPECIES DESCRIPTION

The wood bison (*Bison bison athabascaae*) is a subspecies of bison, taller and less stocky than the more common plains bison (*Bison bison bison*).¹ Wood bison are the largest terrestrial mammal in North America. They are dark brown and shaggy, with a massive triangular head and high hump on the shoulders. The beard and throat mane are straggly. The cape is poorly demarcated, especially compared to a plains bison. Wood bison have short legs ending in rounded hooves. Males have thick black horns that curve inward, while females have thinner horns that point up. Horn sizes increases with age.

The species is sexually dimorphic. Males measure 3.0 to 3.8 meters in length and 1.7 to 1.8 meters in height at the shoulders, and weigh approximately 900 kilograms (~2,000 pounds) on average. The smaller females weigh approximately 400-450 kilograms (~1,000 pounds) on average.

Males and females reach sexual maturity between ages two and four. However, males usually begin to mate at six or later, when they can successfully compete for females. Females usually begin to mate at about three or four. The rut typically occurs July through September, with peak breeding around August. Females give birth to a single calf after 270-300 days' gestation, an average of twice in three years. Females may reproduce through age 20, although prime fecundity wanes at about 13. Males generally mate through age 14.

Wood bison herds include cows, calves, and sub-adults, with mature bulls joining the herd during breeding season. One male will mate with multiple females, and population growth rates have “expanded exponentially” under optimal conditions.

Wood bison typically live to age 15, and sometimes to age 20 (or later) in the wild. Captive wood bison may live 40 years. Generation length is estimated at eight years.

Wood bison are primarily grazers and favor grass and sedge meadows, interspersed with boreal and aspen forests, bogs, fens, and shrub lands. Their diet changes seasonally and by range. Wood bison

¹ There is debate over whether wood bison and plains bison are distinct subspecies. E.g., Committee on the Status of Endangered Wildlife in Canada, COSEWIC Assessment and Status Report on the Plains Bison *Bison bison bison* and the Wood Bison *Bison bison athabascaae* in Canada (2013), p. v-vi, xi, 4, 8-10 (“COSEWIC Assessment”); Government of Yukon/Environment Yukon, Management Plan for the Aishihik Wood Bison (*Bison bison athabascaae*) Herd in Southwestern Yukon (2012), p. 1 (“YT Management Plan”); see also FWS, Notice, 90-Day Finding on a Petition to Delist the Wood Bison, 78 Fed. Reg. 23533 (Apr. 19, 2013).

may also feed on leaves, bark, willow shrubs, and lichens. “Because wood bison can thrive on coarse grasses and sedges, they occupy a niche within the boreal forest that is not utilized by other northern herbivores such as moose or caribou.” Wood bison do not appear to compete with these species, although research continues on the impact of reintroducing wood bison to their historic range.

Wood bison roam “extensively,” and prefer to travel along direct linear routes such as clear trails, roads, rivers, and power lines. They are strong swimmers and will cross large rivers to reach preferred forage.²

CURRENT POPULATION ESTIMATE

The 2013 Committee on the Status of Endangered Wildlife in Canada (“COSEWIC”) Assessment estimated a total wood bison population of 7,642-10,458 individuals—an almost 400% increase over three generations (i.e., since 1987). This increase is “mostly due to the establishment of new wild subpopulations within the original range.” There was been an almost 50% increase since the last COSEWIC assessment in 2000, and an additional wild herd has been established since that assessment.³

When the most current information is included from provincial estimates and the draft 2016 Recovery Strategy, Canada’s wood bison population is between 8,203-10,945 individuals. (Please see Table 1, attached.) Of that, the wild, disease-free⁴ population currently inhabits nine herds and ranges between 4,014-5,218 individuals, and the wild, diseased population is estimated between 4,189-5,727 individuals.⁵

The largest wild herd, the Wood Buffalo National Park (“WBNP”) herd, is diseased. The range of this herd includes WBNP and the Slave River Lowlands. The Ronald Lake and Wabasca herds are managed as part of the WBNP meta-population because of their proximity to Wood Buffalo National Park. However, they have recently been confirmed as disease-free.⁶ (Please see attached map.)

There are two populations managed for conservation, the Elk Island National Park and Chitek Lake herds. These herds are estimated between 550-600 individuals together. Elk Island is sometimes considered a “captive” herd because it inhabits a fenced national park, but management interventions are limited to removing individuals about the desired population size. Chitek Lake is sometimes considered “captive” because it was established outside the original range of wood bison, but “in an

² Canada, Consideration of Proposals for Amendment of Appendices I and II, Proposal to Delete *Bison bison athabasca* from Appendix II, CoP 17 Prop. 1 (2016), p. 2-4 (“*CITES Delisting Proposal*”); *COSEWIC Assessment*, p. v-vi, xi-xii, 4-7, 37-39, 43-47; Environment and Climate Change Canada, Recovery Strategy for the Wood Bison (*Bison bison athabasca*) in Canada [Proposed Draft], Species at Risk Recovery Strategy Series (2016), p. 2-3 (“*Recovery Strategy [Proposed]*”); *YT Management Plan*, p. 6.

³ *COSEWIC Assessment*, p. vi, xi-xii, 23-24, 31-36; *Recovery Strategy [Proposed]*, p. 1.

⁴ “‘Disease-free’ refers to local populations that are not infected with bovine tuberculosis or brucellosis.” *Recovery Strategy [Proposed]*, p. 5.

⁵ *COSEWIC Assessment*, p. 47-48, 52-58; *Recovery Strategy [Proposed]*, p. v-vi, 1, 5-7. Notably, the low-end estimate is largely based on total counts, so it represents a bare minimum population and is likely an undercount. *COSEWIC Assessment*, p. 47.

⁶ *COSEWIC Assessment*, p. vi, 56; *Recovery Strategy [Proposed]*, p. v, 5 (estimating a population of ~9,189 wood bison, approximately half of which (~4,645) are diseased, 46% are disease-free in nine free-ranging herds, and 300 reside in Elk Island National Park as a “public, captive, disease-free local population managed for conservation”).

ecological area that was a likely zone of overlap between Wood and Plains Bison during winter months.”⁷

The attached Table 1 demonstrates that the total wood bison population has consistently increased. Eight of the nine wild herds have grown since the 2000 COSEWIC assessment. However, two herds experienced “significant mortality events” in the past five years. In 2012, an outbreak of anthrax reduced the Mackenzie herd significantly—as much as 50%. However, the population remains above the recovery goal/minimum viable population of 400 individuals and has increased by ~42% since 2013.⁸ In 2012 as well, approximately 20% of the Hay-Zama herd died from starvation or other causes during an extraordinarily severe winter. As of 2016, “[t]he Hay-Zama bison herd has rebounded from the severe over-winter mortality suffered at the end of the 2012-13 winter.”⁹ The ability of these populations to rapidly rebound from substantial losses underscores the viability of the wild, disease-free wood bison population in Canada.

There is one herd of approximately 130 wild wood bison recently released in Alaska, and one herd of at least 140 presumably wild wood bison translocated from Elk Island to Yakutia, Siberia.¹⁰ There are also approximately 50 wood bison maintained by research facilities, zoos, and wildlife parks, and 45-60 captive herds of wood bison (500-700 individuals) maintained on commercial ranches.¹¹

JUSTIFICATION FOR ADOPTION OF A SPECIAL RULE

The need for a special rule has arisen for two reasons. The wood bison’s recovery has been strong, and the international trade in wood bison specimens is negligible. At the recent CITES CoP in September 2016, the wood bison was removed from the CITES Appendices entirely.¹² Until this delisting, the species was listed on Appendix II of CITES and as a threatened species under the ESA.¹³ Therefore, under Section 9(c)(2) of the ESA, no FWS permit was required to import a lawfully taken wood bison trophy from Canada into the U.S.¹⁴ Delisting from CITES removes the species from the Section 9(c)(2)

⁷ The draft Recovery Strategy and COSEWIC Assessment characterize the nine herds slightly differently. The Recovery Strategy separates the Ronald Lake and Wabasca herds from the WBNP meta-population and considers these wild and disease-free. It characterizes the Elk Island and Chitek Lake herds as “captive conservation herds.” COSEWIC groups the Ronald Lake and Wabasca herds into the “WBNP meta-population,” and considers the Elk Island and Chitek Lake herds wild because they are generally free of human management intervention. Compare *Recovery Strategy [Proposed]*, p. 5-6, with *COSEWIC Assessment*, p. 31-36.

⁸ See Table 1.

⁹ Alberta Government/Wildlife Management Lower Peace Region, Hay-Zama Wood Bison Aerial Survey 2016 (Feb. 2016) (“Hay-Zama Survey”).

¹⁰ *CITES Delisting Proposal*, p. 4, 9; *Recovery Strategy [Proposed]*, p. 5; Canada Ships 30 Wood Bison to Russia, Phys.org (Mar. 28, 2013); All About Bison, Bison News (visited Apr. 2017).

¹¹ *CITES Delisting Proposal*, p. 3-4.

¹² CITES CoP 17, Committee I, Summary Record of the Sixth Session of Committee I, CoP17 Com. I Rec. 6 (Rev. 1) (Sept. 28, 2016 09h30—12h00), p. 2 (“Comm. I Summ. Rec.”).

¹³ *CITES Delisting Proposal*, p. 1, 7; FWS, Final Rule, Reclassifying the Wood Bison under the Endangered Species Act as Threatened Throughout Its Range, 77 Fed. Reg. 26191 (May 3, 2012), p. 26209-11 (“FWS Final Rule”). Reductions in current wood bison range are not foreseeable, as discussed above.

¹⁴ 16 U.S.C. § 1538(c)(2).

exception. Now, under federal regulations, an FWS import permit is required.¹⁵ A special rule will put the species back in the same position, in which an import permit is not required. This will facilitate the species' continued recovery and the CITES Parties' intent in removing the species from the Appendices.

An evaluation of the ESA's listing factors demonstrates that the wood bison's status remains stable and is even close to meeting the criteria for *delisting*. The wood bison is not likely to become extinct in the foreseeable future (i.e., the next 25 years/three generations). The wood bison has achieved and continues to achieve its recovery goals. Threats to the species exist, but are being mitigated by careful management: (A) Habitat is secure and will be expanded where possible; (B) Utilization is adaptive and advances management goals; (C) Disease is being managed through physical separation and concerted research to salvage the currently diseased WBNP herd; (D) Regulatory mechanisms have proven more than adequate to recover the wood bison population and secure its future; and (E) Other factors such as reduced genetic diversity and hybridization are being managed so as not to restrict the species' continued recovery.

Therefore, because the status of the species remains stable (or has even improved) since the wood bison was listed as threatened, a special rule should be adopted to reinstate the exemption. A special rule will avoid imposing added regulatory burdens on the FWS, which burdens are unnecessary due to Canada's continued successful management of the species.

A. Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range

The wood bison occupies a generally stable habitat of over 101,000 km², an area the size of Iceland, in the Yukon Territory, Northwest Territories, British Columbia, Alberta, and Manitoba provinces.¹⁶ A small captive population has also recently been released in Alaska, and small populations were introduced into Yakutia (Siberia), Russia, in 2006, 2011, and 2013.¹⁷

The wood bison's current range has generally been stable and is expected to remain so for the foreseeable future. "Habitat availability is not considered a key limiting factor to Wood Bison recovery."¹⁸ Rather, the wood bison's range is likely to increase.

The current constraint on wood bison habitat expansion is the intentional separation of diseased from disease-free herds, wood bison from plains bison, and wood bison from agricultural use areas.¹⁹ The current range is fragmented by design, as part of the recovery process. Connectivity is actively discouraged to prevent disease transmission potential. However, the newly-published draft Recovery

¹⁵ 50 C.F.R. 17.31.

¹⁶ *CITES Delisting Proposal*, p. 2.

¹⁷ All About Bison, Bison News (visited Apr. 2017); Canada Ships 30 Wood Bison to Russia, Phys.org (Mar. 28, 2013).

¹⁸ Although the wood bison's *historic* habitat may have declined due to agricultural land use, fire suppression, and oil and gas exploration, any such decline is "much less significant" than it was for the plains bison. *CITES Delisting Proposal*, p. 4; *COSEWIC Assessment*, p. 40. More importantly, the FWS does not consider historic habitat reduction, but must look at *current* threats. *FWS Final Rule*, p. 26197 ("we consider 'range' within the definition of an 'endangered species' to mean current range, not historical"). Reductions in current wood bison range are not foreseeable, as discussed above.

¹⁹ *CITES Delisting Proposal*, p. 4-5; *Recovery Strategy [Proposed]*, p. 9; *COSEWIC Assessment*, p. xi-xii.

Strategy prioritizes increased connectivity of wood bison populations and ranges as a management objective.²⁰ The draft Strategy also prioritizes the identification of suitable wood bison habitat and critical habitat, to achieve the goal of distributing wood bison herds throughout their original Canadian range and federally protecting the wood bison's range.²¹

Put simply, habitat conversion or deterioration is not a significant threat to the wood bison, and their range should improve in the next 25 years.²² The current range imposes a constraint on extensive future population growth, but the elimination of introduced cattle-borne diseases (Factor C) will allow for greater range and population expansion. Allowing trophy imports without a permit through an ESA special rule will align with Canada's management goals, and help to generate the necessary revenues and tolerance incentives to support research into disease reduction and range expansion and the designation of critical habitat.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Legal trade in wood bison has been limited by national and provincial law for over a century. Most recently, it is controlled by the listing of wood bison as threatened under Canada's Species at Risk Act ("SARA"), provincial/territorial statutes, and agreements with First Nations. This trade not and will not threaten the species, now or in the foreseeable future, because it is so highly regulated and so limited.²³

Wood bison offtakes are only allowed by permit.²⁴ The number of take permits is based on population estimates generated by frequent monitoring. Hunting is suspended if a population has declined such that offtakes may not achieve management objectives. Thus, hunting of the Hay-Zama herd has been suspended since 2013/2014, to allow that population to recover from losses caused by a severe winter. Hunting of the Mackenzie herd was and continues to be suspended until at least 2019, after a substantial number of bison died in an anthrax outbreak. Because the wood bison population is monitored regularly, offtakes are adaptively controlled and respond to unusual changes in the herd.²⁵

A limited number of hunts may be allocated to improve community tolerance, as in the Nahanni herd, or a bison season may be opened to intentionally reduce the population or restrict population growth, as

²⁰ Notably, achievement of this objective depends on another objective—eradicating cattle-borne diseases from the WBNP herd.

²¹ *Recovery Strategy [Proposed]*, p. 24-26, 29-32 (further noting that "modification of habitat is a valuable tool to improve habitat conditions").

²² The effect of climate change on wood bison habitat is not foreseeable and may be positive or negative. *COSEWIC Assessment*, p. 65-66; *FWS Final Rule*, p. 26201.

²³ *CITES Delisting Proposal*, p. 2; *Recovery Strategy [Proposed]*, p. 15. The *COSEWIC Assessment* (p. xii, 60-61, 72) labels "Hunting and Population Control" a high-impact "threat," but only because hunting/culling is used as a management action to keep populations and diseases in check. *CITES Delisting Proposal*, p. 5. As explained above, regulated hunting is adaptively managed, and will be suspended if the population fluctuates except by design.

²⁴ *COSEWIC Assessment*, p. 60 ("Non-aboriginal hunting is regulated for all subpopulations, except in Alberta outside of some bison management or control zones [to limit diseased wood bison from leaving WBNP] and the Slave River Lowlands where hunting by aboriginal people is unrestricted."); *Recovery Strategy [Proposed]*, p. 16.

²⁵ E.g., *Hay-Zama Survey*; NWT Species at Risk Committee, Species Status Report: Wood Bison (*Bison bison athabascaae*) in the Northwest Territories (Apr. 7, 2016), p. 4 ("*NWT 2016 Assessment*"); Wek'èezhii Renewable Resources Board, Mackenzie Wood Bison Update (Sept. 30, 2016), p. 3 ("*Wek'èezhii Update*").

in the Aishihik herd. In either case, wood bison populations have tended to expand, despite the offtakes.²⁶ Closely managed hunting, adhering to recovery planning, and as stated in government management plans, is used “as a tool to manage the size of wild herds for control of disease, to prevent hybridization with plains bison, to prevent contact with captive herds and to manage human-bison conflict.” This hunting has been demonstrated to “increase public acceptance [of wood bison], as the perceived value of these animals on the landscape is increased,” and to “have a positive impact on Wood Bison recovery overall.”²⁷ Among other things, hunts (whether resident or non-resident) provide an import source of meat for local First Nations populations.²⁸ Biological samples are also typically collected from hunters to support the extensive wood bison research efforts.²⁹

The legal international trade in wild wood bison and wood bison parts, including for trophies and meat, is extremely limited. In the past five years, 60 live wood bison were exported to Russia or the U.S. to establish or re-establish herds; 117 specimens (teeth) were exported for research activities; and the parts or mounts corresponding to 24 individual animals were exported as trophies. The negligible trade is one of the primary justifications for delisting from the CITES Appendices.³⁰

The FWS previously noted, “the utilization of free-ranging, disease-free wood bison populations is closely regulated and managed for sustainability ... [h]arvest is used as a recovery management tool to regulate herd size ... [and] is also used to prevent the spread of bovine tuberculosis and brucellosis infection in wood bison.”³¹

Illegal poaching or illegal trade in wood bison is “not an issue ... Canada has no record of the illegal export of wild wood bison in the past 15 years, which is as far back as records are readily available.”³²

The established system of using closely regulated hunting consistent with management planning to regulate wood bison populations and range is biologically justified and creates conservation incentives. Rather than threatening the species, it incentivizes tolerance of bison on the land and generates revenues. Because overutilization is non-existent and the limited use and trade benefit the species, the special rule should be adopted, to facilitate the regulated trade in hunting trophies between Canada and the U.S. Imposing an additional import requirement will do more harm than good for a negligible degree of trade. It will disincentivize U.S. hunters and increase the FWS’ permitting burden. Exempting the wood bison from the permit regulation is consistent with the FWS’ conclusion in 2012 that overutilization is simply not a threat.³³ It is also consistent with the delisting of wood bison from CITES.

²⁶ T.S. Jung & K. Egli, Population Inventory of the Aishihik Wood Bison (*Bison bison athabascaae*) Population in Southwestern Yukon, 2014 (2014); NWT Environment and Natural Resources, Fact Sheet: Nahanni Wood Bison.

²⁷ *CITES Delisting Proposal*, p. 5; *Recovery Strategy [Proposed]*, p. 15.

²⁸ Yukon Outfitters, pers. comm. (May 2017).

²⁹ E.g., T.S. Jung & K. Egli, Monitoring and Management Activities for Bison in Southwestern Yukon: 2013-2014 Annual Report (Apr. 2016) (“*YT Monitoring 2013-2014*”).

³⁰ *CITES Delisting Proposal*, p. 2, 6.

³¹ *FWS Final Rule*, p. 26202-03.

³² *CITES Delisting Proposal*, p. 2, 6.

³³ *FWS Final Rule*, p. 26203.

C. Disease or Predation

Disease is the “most significant concern” for wood bison population growth. However, this threat is manageable and being mitigated. Wood bison endure, and may even increase, despite disease, as the WBNP population demonstrates. Periodic outbreaks and predation may reduce individual wood bison herds, but do not threaten the species on the whole. These impacts and are also being managed. Accordingly, the situation has not changed and has even improved since the FWS downlisted the wood bison in 2012. Publishing a special rule will be consistent with that finding, and will help to fund the research which will ultimately eliminate the risk of disease-transmission from the WBNP herd.

1. *Bovine TB and Brucellosis*

The cattle-borne diseases of bovine tuberculosis and brucellosis were accidentally introduced to the wood bison herd in WBNP in the 1920s. These diseases can decrease reproductive rates and winter survival, and may increase the impact of predation on infected bison (although this is a debated hypothesis). These diseases are chronic, but they are not immediately fatal and do not wipe out populations. The WBNP herd remains the largest free-roaming wood bison herd, with a generally stable population “close to what it was three generations ago,” despite approximate infection rates of 49% (bovine tuberculosis) and 31% (brucellosis).³⁴

There are no plans to eradicate this herd and recolonize WBNP with disease-free individuals. However, “deliberate harvest as a management response to disease” has been and is being employed to maintain the separation between diseased and disease-free populations. This has proven effective at maintaining the separation. But it “purposefully limits the growth potential of the existing wild population in Canada.”³⁵ The diseased WBNP herd inhabits a prime habitat which cannot currently be used by disease-free bison, and a buffer area around WBNP is maintained.³⁶

To remove this constraint to range expansion, the draft Recovery Strategy prioritizes research to eradicate bovine TB and brucellosis. Among other things, it establishes a “collaborative multi-stakeholder bison diseases management planning group” to address the problem. It cites to “[n]umerous reports on disease management and genetic salvage [that] have been published,” and notes that studies are being conducted and new technologies are being developed to preserve and increasing genetic diversity among wood bison herds (including the first successful IVF treatment).³⁷

In short, these diseases are being controlled, just as they were in 2012, when the wood bison was downlisted to threatened. Although they do impact the overall population, they largely do not affect the wood bison that are hunted and exported as hunting trophies which would be subject to a special rule.

³⁴ COSEWIC Assessment, p. 19-20, 56, 63; Recovery Strategy [Proposed], p. 4, 17-20, 56, Appendix 2.

³⁵ CITES Delisting Proposal, p. 5.

³⁶ Recovery Strategy [Proposed], p. 18.

³⁷ Recovery Strategy [Proposed], p. vii, 23-26, 28-29; CITES Delisting Proposal, p. 5, 7-9; D. Zakreski, University of Saskatchewan Researchers Produce World’s First Wood Bison Using In Vitro Fertilization, CBC News (July 21, 2016) (reporting on successful “scrub” of wood bison embryos to clear disease, and successful IVF and births of four calves); Univ. of Saskatchewan, Press Release, Rare Wood Bison Calves Born Through IVF (July 21, 2016).

2. Anthrax and Other Diseases

Anthrax (*Bacillus anthracis*) is an infectious bacterial disease “only likely to emerge in certain environmental conditions,” where endospores are present in the soil. Occasional outbreaks may impact wood bison populations through sudden die-offs. Most prior outbreaks have not substantially affected wood bison. However, in 2012, a “record outbreak” reduced the Mackenzie herd by approximately 50%. (N.B. The herd remained above the minimum viability threshold of 400 individuals, and has doubled in size since 2012.) Vaccines can successfully control anthrax but are not easily administered to free-ranging populations. But “[t]imely and effective carcass cleanup reduces localized environmental contamination of anthrax spores,” and thus reduces the disease impact. To mitigate this risk into the future, the draft Recovery Strategy proposes research and management interventions once an outbreak occurs, and modeling of potentially vulnerable areas could be conducted.³⁸ Anthrax may impact bison herds in the short term, but it is not a long term threat to the continued viability of the species.

The COSEWIC Assessment identifies several other diseases that may affect wood bison, but the diseases are either preventable (such as through maintaining buffers from domestic livestock), or have not been observed to clinically impact the species.³⁹ Accordingly, the risk from these diseases is being mitigated, or is not foreseeable.

As explained above, wood bison offtakes are adaptively managed. For instance, the Mackenzie herd has not been hunted since the anthrax outbreak and will not be hunted until its population is reassessed in 2019.⁴⁰ A special rule will not threaten the species or increase the threat of diseases like anthrax, because there are no hunting trophies available from populations affected by the disease.

3. Predation

It is hypothesized that bovine tuberculosis and brucellosis increase the vulnerability of infected individuals to predation, although this is not an agreed conclusion and has been subject to debate. In any event, it appears wolf populations in the wood bison range are growing, resulting in higher wolf predation on wood bison. Research has been conducted on the wood bison-wolf relationship, and predator control measures are being considered in at least one province to manage these species holistically.⁴¹

Disease and predation do pose risks to the wood bison population. However, these risks have existed from the beginning of the bison’s recovery and are managed successfully, as the overall growth of the herds demonstrates.

³⁸ *Recovery Strategy [Proposed]*, p. 19; *COSEWIC Assessment*, p. 62.

³⁹ *COSEWIC Assessment*, p. 64.

⁴⁰ *NWT 2016 Assessment*, p. 4; *Wek’èzhii Update*, p. 3.

⁴¹ E.g., T.S. Jung & K. Egli, Monitoring and Management Activities for Bison (*Bison bison*) in Southwestern Yukon: 2011-2012 Annual Report (Apr. 2016), p. 1, 23-32 (“*YT Management 2011-2012*”); *Recovery Strategy [Proposed]*, p. 19-20, 27, 30-31; BC Conservation Data Centre, Conservation Status Report: *Bos bison athabasca* (Wood Bison) (May 18, 2010), p. 5 (“*BC Status Report*”).

D. Existing Regulatory Measures

Canadian law first protected the wood bison in the 1877 Buffalo Protection Act. The species has been protected ever since, both at the national and provincial/territorial level. In 1894, the Unorganized Territories Game Preservation Act prohibited unregulated bison hunting. In 1922, Canada established Wood Bison National Park as a sanctuary for the species.⁴²

In 1978, COSEWIC, independent experts tasked with identifying and assessing the status of wildlife considered to be at risk of extinction in Canada, assessed the wood bison as endangered. That assessment was changed to threatened in 1988, based on increased population numbers due to an “active recovery program. The threatened listing was re-confirmed in 2000.⁴³

In 2013, the wood bison was reassessed to special concern, which means “species that no longer meet the COSEWIC biological criteria for Threatened but still require protection because of a combination of biological characteristics and identified threats.” The species was downlisted because of ongoing population increases (to a number close to 10,000 individuals), the establishment of two new wild herds, and continued effective management, disease prevention, etc.⁴⁴

In 2003, Canada enacted the Species at Risk Act (“SARA”), a counterpart to the ESA. Wood bison were listed as threatened under Schedule 1 of SARA based on the 2000 COSEWIC assessment. The threatened listing prohibits the killing or harming of wood bison on federal lands and requires preparation of a national recovery strategy and designation of critical habitat.⁴⁵ Environment and Climate Change Canada is currently undertaking public consultation on whether to recommend a downlisting of wood bison to “special concern” status under SARA, which would require a management plan to be published (instead of the current recovery plan).⁴⁶

Wild wood bison are “protected in all the provinces and territories in which [they] occur[], under jurisdictional wildlife acts.” These laws prohibit and regulate take (including hunting) and harassment of the species, and are effectively enforced. Wood bison are also protected because they inhabit protected areas, such as national parks and provincial/territorial parks or wildlife management areas.⁴⁷

The wood bison was first included on Appendix I of CITES in 1975. In 1997, it was downlisted to Appendix II. This downlisting “was due to a rapidly growing population and well-managed harvest such that international trade would not affect the species in the wild.” As stated above, in 2016 at CoP 17,

⁴² *COSEWIC Assessment*, p. vi, xv, 73.

⁴³ COSEWIC predates the Species at Risk Act. COSEWIC has members from the wildlife authorities of each province/territory, the four federal wildlife management entities, three non-governmental members, and species specialist subcommittees and the Aboriginal Traditional Knowledge subcommittee. *COSEWIC Assessment*, p. xiii.

⁴⁴ *COSEWIC Assessment*, p. xv, 74; *CITES Delisting Proposal*, p. 2; *Recovery Plan*, p. v; 15. Government of Canada, Species at Risk Public Registry, Species Profile: Wood Bison.

⁴⁵ *COSEWIC Assessment*, p. xv, 74; *YT Management Plan*, p. 8.

⁴⁶ *Recovery Strategy [Proposed]*, p. 1; Environment Canada, Consultation on Amending the List of Species under the Species at Risk Act, Terrestrial Species (Jan. 2015).

⁴⁷ *COSEWIC Assessment*, p. xiii, 19-24, 74-75; see also, e.g., *BC Status Report*, p. 2-3 (portions of the Nordquist herd’s range are protected by Portage Brule Rapids Protected Area and Liard River Corridor Park).

the wood bison was removed entirely from the CITES Appendices. Brazil, Chile, China, Egypt, the EU, Kenya, Norway, Qatar, and the U.S. all spoke in support of the proposal. The wood bison was delisted in recognition of its continued population growth and strong harvest management.⁴⁸

In 2016, the Northwest Territories Species at Risk Committee determined to list the wood bison as a threatened species for the first time under provincial legislation, in response to the 2012 anthrax outbreak that reduced the Mackenzie herd.⁴⁹

Wood bison have been subject to active recovery efforts since the early 1900s. All provinces and territories in the historic range have recovery/management plans for wood bison. These plans share the same basic goal: ensure the species' long-term viability by maintaining self-sustaining, disease-free herds. The provincial/territorial plans are tailored to address the challenges faced in each range: expanding habitat; eradicating disease and avoiding hybridization; maintaining population levels; regulating sustainable use for indigenous purposes or purposefully unsustainable offtakes to avoid population growth; and minimizing human-bison conflicts. They are reviewed and revised periodically, as needed, and implemented through action items like monitoring and research.⁵⁰

In keeping with these basic management priorities, in 2016, Environment and Climate Change Canada published a new draft Recovery Strategy at the national, coordinating level, to replace the 2001 recovery plan once officially adopted. This new Strategy sets new short- and long-term goals for the species. The short-term objective is to maintain the status, population size, and current range of the disease-free herds. The long-term goal is "to ensure the existence of at least five disease-free, genetically diverse, connected, self-sustaining, free-ranging local populations distributed throughout their original Canadian range, with a minimum size for each local population of 1,000 animals."⁵¹ The long-term goal had to be

⁴⁸ *CITES Delisting Proposal*; Com. I Summ. Rec., p. 2.

⁴⁹ *NWT 2016 Assessment*, p. 3-4 (wood bison assessed with threatened status by independent committee of experts; recommends, among other things, implementation of predator management, continuation of harvest management, investigation of ways to avoid vehicle collisions, and "careful management of disease and further investigation of options for preventing and mitigating disease outbreaks (e.g., anthrax)"); *Wek'èezhii Update*, p. 2.

⁵⁰ E.g., *YT Management Plan*, p. 2-3 ("In the 1970s jurisdictions within the historical range of wood bison, in conjunction with the federal government, initiated a wood bison recovery program, under the auspices of the Canadian Wildlife Director's Committee."); *YT Management 2011-2012* (activities included a survey, radio-collaring, a paper on wolf predation, biological sampling, harvest monitoring, conducting media/public outreach); T.S. Jung & K. Egli, *Monitoring and Management Activities for Bison (Bison bison) in Southwestern Yukon: 2012-2013 Annual Report* (Feb. 2016) (activities included preparation of a management plan, radio-collaring, biological sampling, harvest monitoring, finalizing a study on the socio-economic impact of reintroduced wood bison to First Nations, conducting media/public outreach and hunter education); *YT Management 2013-2014* (activities included a "composition count," radio-collaring, biological sampling, studying the competition between bison and other ungulates, harvest monitoring, conducting media/public outreach); BC Environment/W.L. Harper et al., *Management Plan for Wood Bison in British Columbia* (Mar. 2000); Fish and Wildlife Division, Alberta Government, *Alberta's Strategy for the Management of Species at Risk (2009-2014)* (2008); Government of the Northwest Territories, *Wood Bison Management Strategy for the Northwest Territories 2010-2020* (2012); *CITES Delisting Proposal*, p. 2, 4-5, 7-8 (the species has protected status in the Northwest Territories, Yukon Territory, British Columbia, and Alberta; inhabits national and provincial/territorial protected areas; and is protected by regulations and cooperative agreements with native peoples); *COSEWIC Assessment*, p. 19, 60-61; *Recovery Strategy*, p. 24.

⁵¹ *Recovery Strategy [Proposed]*, p. v, 22, 24.

revised from the prior recovery plan, as that goal—four free-ranging, disease-free populations of at least 400 individuals—has been achieved.

Managed offtakes are permitted and regulated in certain provinces or territories. The management plans of the Yukon Territory, Northwest Territories, Alberta, and Manitoba allow hunting for both population reduction and First Nations' subsistence and problem animal control (Aishihik, Etthihun, Chitek, and Slave River Lowlands herds). British Columbia allows a small First Nations take only.⁵²

E. Other Natural or Man-Made Factors Affecting Continued Existence

The risks of limited genetic diversity, hybridization with plains bison, and “other” are also being mitigated through research and careful management. These threats are detailed in the draft Recovery Strategy, and interventions/mediations are identified to reduce any impact on the wood bison's continued recovery.

The disease-free wood bison herds were established by a relatively small number of animals, from a relatively small founder herd. These “bottlenecks” may reduce the herds' genetic diversity, which in turn causes inbreeding depression.⁵³ However, there is significant genetic diversity in the WBNP population. Research is being conducted to collect genetic material from the WBNP herd, which can then supplement the genomes of the disease-free herds.⁵⁴ In 2016, scientists successfully collected and “scrubbed” genetic material from wood bison and implanted the embryos in vitro in a disease-free surrogate mother. Those calves are doing well. This technology opens the door to “genetic salvage” from the WBNP population. Researchers “can now actually fly in to isolated herds ... identify individuals, collect their eggs and sperm, and then bring them back to the laboratory so that we can wash them free of the disease ... take those embryos and put [them] back into healthy surrogate moms, voila—we have a way of regenerating, re-capturing this really important genetic diversity that we need.”⁵⁵

The draft Recovery Strategy has also increased the minimum size of the population targets. The new target of 1,000 individuals is based on models showing that population size should “achieve a 90% probability of retaining 90% of allelic diversity.” Put differently, those populations will be large enough that genetic diversity will be maintained and not further reduced. Thus, genetic diversity should be

⁵² *CITES Delisting Proposal*, p. 8; *COSEWIC Assessment*, p. 60; *YT Management Plan*, p. 6 (“human hunting of the Aishihik herd commenced in an attempt to stabilize, or at least slow down, the growth of the herd. Between 1998 and 2011, 1,259 wood bison were harvested from the Aishihik herd. The harvest has provided many Yukoners with a tangible benefit of having wood bison on the land, and likely contributed, in part, to raising the awareness and appreciation of wood bison in Yukon ... [however, despite the harvest,] the herd continues to slowly grow.”).

⁵³ Although it should be noted the genetic diversity of the Elk Island founder herd was assessed to be “surprisingly high,” *COSEWIC Assessment*, p. 59.

⁵⁴ *Recovery Strategy [Proposed]*, p. 23-25, 28-29; *COSEWIC Assessment*, p. 59; e.g., M. P. Cervantes Flores, Thesis: *In Vitro Embryo Production in Wood Bison (Bison bison athabasca)* (2016).

⁵⁵ D. Zakreski, University of Saskatchewan Researchers Produce World's First Wood Bison Using In Vitro Fertilization, CBC News (July 21, 2016).

maintained by appropriate population management.⁵⁶ Moreover, the establishment of wood bison populations in Chitek Lake, Alaska, and Russia will allow for expanded genetic diversity over time.

The integrity of wood bison genetics is also threatened by cross-breeding with plains bison. Another goal of the recovery plan is to prevent any mixing or hybridization between these subspecies, or with domestic bison or cattle. This goal is achieved through control measures like guidelines for domestic bison/cattle producers to maintain separation, restriction on the transport of plains bison or domestic animals through wood bison range, and physical buffer zones like the one to be established in British Columbia, to avoid any contact with plains bison or domestic animals.⁵⁷

The COSEWIC Assessment also assesses certain threats as “Low—Negligible Impact” or “Negligible—No Impact.” By definition, these threats do not put the wood bison at risk of extinction.⁵⁸

CONCLUSION

In short, there are no threats that would negatively change the status of the wood bison since 2012. The population status has generally been stable; progress has been made in combating the cattle-borne diseases that impact the WBNP population; and the species was delisted from the CITES Appendices because the trade is simply too low to be of concern for its recovery. The wood bison is in the same, or even in a better position, than when it was downlisted to threatened status under the ESA.

Accordingly, Petitioners request that wood bison hunting trophies be put in the same legal position they were in when the wood bison was downlisted to threatened under the ESA. As the FWS acknowledged, closely regulated hunting is essential for Canada’s recovery plan for the species. It is the primary tool used to control populations and range, avoid disease outbreaks, reduce human-bison conflicts, and give value to the species. The FWS stated it was “important” that lawful wood bison hunting trophies fell under the exemption in Section 9(c)(2), and that no import permit would be required after the threatened listing became effective.⁵⁹ The same remains true. It is important that the wood bison’s recovery, recognized by the CITES delisting (which the FWS supported) is not impeded by ESA barriers that arise from that same delisting. The trade is simply too low to warrant import permit processing. This will increase the FWS’ regulatory burden, and contradict the CITES’ downlisting rationale. A special

⁵⁶ *Recovery Strategy [Proposed]*, p. 22, 29 (“Options to address the threat of loss of genetic diversity include movement of disease-free animals of known genetic background among local populations, implementing selective breeding in recovery local populations, establishing preservation and artificial breeding programs, and carefully managing local population reductions. Genetic diversity in reintroduced Wood Bison local populations would be improved by augmenting them with disease-free genetic material from the most genetically diverse stock in Wood Bison National Park or the Slave River Lowlands. A method for application of advanced reproductive techniques to Wood Bison is being developed.”).

⁵⁷ *Recovery Strategy [Proposed]*, p. 20, 26-27, 68; *BC Status Report*, p. 3, 5.

⁵⁸ *COSEWIC Assessment*, p. 71, 108-09.

⁵⁹ *FWS Final Rule*, p. 26197, 26202-03, 26205-07, 26210-11.

rule is necessary to avoid unnecessary regulation. It is necessary to preserve the status quo. It is necessary and advisable, and therefore, should be adopted under the ESA.

Respectfully submitted,



John J. Jackson, III
Regina A. Lennox
Conservation Force
On behalf of Petitioners

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[Table 1 on next page]

Table 1 – Wood Bison Population Estimates

	2000	2002	2004	2006	2008	2009	2010	2011	2012	2013	2014	2015	2016
Aishihik	500 ^e	530 ^e	550 ^e	700 ^e	970-1,309 ^{af}	998-1,335 ^{af}		1,106-1,385 ^{af}			1,306-1,684 ⁱ		
Chitek Lake	70 ^{ae}	100 ^e	150 ^e	225 ^e	300 ^e	225-275 ^a		250-300 ^b					
Elk Island										300 ^{aj}	300 ^b		
Etthihun Lake		43 ^a	70 ^e	124 ^{ae}	124 ^e	156 ^{ad}	181 ^a	200-300 ^b					
Hay-Zama	130 ^{ab}	234 ^e	350 ^e	600 ^e	652 ^a			561 ^{ag}	587 ^h	478-529 ^{ah}	501 ^h	590-644 ^b	626 ^h
Mackenzie	1,908 ^e	2,000 ^e	2,000 ^e	~2,000 ^e	1,555 ^a				1,160-2,020 ^a	499-1,022 ^a			850 ^c
Nahanni	160 ^e	170 ^e	403 ^{ac}	400 ^e	400 ^e			218-644 ^{ac}					
Nordquist	50 ^e	50 ^a			~100 ^a	117+ ^d	117 ^a						
Ronald Lake							74-159 ^a			186 ^a			
Wabasca / Wentzel								200 ^a		211 ^a			
WBNP / Slave River	2,178 ^e	4,050 ^e	4,947 ^e	5,641 ^e	4,639 ^e	4,958 ^a				4,189-5,727 ^a			

Taking the lowest and highest numbers for each population: 8,203-10,945 of which 4,014-5,218 is disease-free and 4,189-5,727 (~51%) is *diseased*.

^a COSEWIC Assessment, p. 34-37, 52-58

^b Recovery Strategy [Proposed], p. 6

^c NWT Environment Fact Sheets

^d BC Status Report, p. 3

^e FWS Final Rule, p. 26192

^f T.S. Jung & K. Egli, Population Inventory of the Aishihik Wood Bison (*Bison bison athabascae*) Population in Southwestern Yukon, 2011, p. 4

^g Decline caused by intentional reduction of population through regulated hunting

^h Hay-Zama Survey, p. 1

ⁱ T.S. Jung & K. Egli, Population Inventory of the Aishihik Wood Bison (*Bison bison athabascae*) Population in Southwestern Yukon 2014, p. 4

^j Managed herd maintained at population of 300