

APPENDIX F — ADF&G/DWC Wildlife Transplant Policy Findings

F-1: DIRECTOR'S FINDING ON THE STATUS OF WOOD BISON IN ALASKA

Alaska Department of Fish and Game Division of Wildlife Conservation Finding Regarding the Legal and Management Status of Wood Bison in Alaska

Finding: Wood bison (*Bison bison athabasca*) in Alaska are recognized as an extirpated indigenous species that, once restored, will be managed as a resident wildlife species and considered an integral part of the natural diversity of wildlife in Alaska.

Discussion: Published scientific information shows that bison were present in Alaska for at least 400,000 years, and were a dominant part in Alaska's fauna during this time (Guthrie 1990). Dated bison skeletal remains range from over 40,000 to 170 years old, with the most recent dated specimen found at Anchorage. The historical information shows that wood bison were the last subspecies of bison to live in Alaska and northern Canada. Skeletal remains and historical accounts show that wood bison persisted in a large region in interior and southcentral Alaska and Canada during the last 10,000 years and were a component in the economies of Athabascan people in central and eastern Alaska and in adjacent parts of Canada during this period (Stephenson et al. 2001). Historical accounts from Alaska Native elders describe how bison were hunted and used and, along with dated skeletal remains, provide details on their distribution in recent times. Archaeological evidence and oral accounts from Native Alaskan elders indicate wood bison were hunted by humans until they disappeared from Alaska during the last few hundred years. The most recent records of wood bison occur in the early 1900s, and include sightings of small groups or single bison in northeastern Alaska, some of which were reported to have been killed.

Historical accounts and other scientific information indicate that the most likely reason for the extirpation of bison was the combined effects of unregulated hunting and changes in habitat distribution (Stephenson et al. 2001; Griffith et al. 1998). There are many similarities between muskoxen and wood bison in terms of their historical occurrence in Alaska, as well as the timing and causes for their recent disappearance. As is the case with wood bison, published studies indicate that unregulated harvest was one of the primary causes for the extirpation of muskoxen (Lent 1999).

Historical evidence is most abundant in the eastern interior, but there is reason to believe that wood bison occurred in western and southcentral Alaska as well. The most recent wood bison skeletal remains were found in southcentral Alaska. The remains of large-horned steppe bison are common in western Alaska, which was part of the Beringian glacial refugia. The remains of a wood bison were found near St. Michael in western Alaska, and there is one unpublished historic account suggesting the recent presence of bison in the Galena area. Recent habitat studies, as well as the existence of a healthy herd of plains bison near Farewell, indicate that bison habitat continues to exist in the western interior. Based on these data, ADF&G recognizes the area

where recent historical information is already available, as well as the western interior, as part of the original range of wood bison, and the area where restoration programs should be considered.

Muskoxen and other species have been reestablished in parts of their original range in Alaska during the last several decades. ADF&G believes that wood bison restoration deserves the same attention from wildlife conservation agencies and interests. This is appropriate in view of the scientific knowledge regarding the history of bison in Alaska, the important contribution Alaska can make to wood bison conservation and ecosystem restoration in North America, the contribution this effort can make to the long term well being of Alaskans and others and widespread public interest in wood bison restoration.

Conclusions: Based on published historical information the Alaska Department of Fish and Game (ADF&G) finds that wood bison are an extirpated indigenous species and are native to Alaska. Once restored to Alaska wood bison will again be an integral part of Alaska's natural wildlife diversity and will be managed by ADF&G like other resident species of wildlife. This finding is in agreement with the conclusions reached in a review by the Alaska Chapter of *The Wildlife Society* (Griffith et al. 1998), and is consistent with the International Union for the Conservation of Nature/Species Survival Commission guidelines for the Translocation of Living Organisms and also the IUCN guidelines for the Re-Introduction of native species. This finding is also supported by a joint review prepared by ADF&G and the US Fish and Wildlife Service (Gardner and DeGange 2003).

Bison are widely regarded as a keystone North American herbivore by wildlife ecologists. Restoring bison populations in areas from which the species has been extirpated is recognized as a way to restore and maintain the integrity of ecosystems, and particularly to repair past disturbance (Knapp et al. 1999, Gates et al. 2001, Arcese and Sinclair 1997). ADF&G recognizes that restoring wood bison to parts of their original range in Alaska is a priority in wood bison conservation (Gates et al. 2001), and will continue to work with other agencies and the public to develop opportunities to restore wood bison in suitable habitats. This is in accordance with the ADF&G, Division of Wildlife Conservation Wildlife Transplant Policy, which will continue to guide the department's actions and final evaluation of wood bison restoration.



Matthew H. Robus, Director
Division of Wildlife Conservation

August 28, 2006
Date

F-2: FINDINGS OF THE WILDLIFE TRANSPLANT POLICY REVIEW COMMITTEE

Findings of the Wood Bison Restoration Wildlife Transplant Policy Review Committee

January 2007

Introduction

The Alaska Department of Fish and Game, Division of Wildlife Conservation (ADFG/DWC) has been evaluating the potential for restoring wood bison to Alaska since the early 1990's. Since that time a great deal of oral history research, habitat reconnaissance, and public consultation has occurred. These efforts have not identified adverse ecological impacts that are likely to be widespread or significant, yet they have demonstrated strong public support for the project. During this evaluation numerous agency permitting requirements and approvals that are necessary for the project to move forward have been identified. One of these is the requirement for the project to comply with the ADFG/DWC Wildlife Transplant Policy (WTP). Because the potential for wood bison restoration appeared promising, in July 2006 the DWC initiated procedures to evaluate the project according to the requirements of the WTP. These draft findings have been prepared by the DWC Wood Bison Restoration Wildlife Transplant Policy Review Committee (Review Committee) and are intended to be made available for a minimum 30-day public review and comment period. The Review Committee's findings will be included as one component of the report titled "Wood Bison Restoration in Alaska: A Review of Environmental and Regulatory Issues and Recommendations for Project Implementation" (Environmental Review). A public meeting will be held in Fairbanks to inform the public and accept comment on the Environmental Review and the findings of the Review Committee. Following the public meeting the Review Committee will consider any public comments received, finalize their findings and submit them to the Director of the DWC. If the wood bison restoration project proceeds, additional public meetings will be held in communities in the vicinity of areas proposed for wood bison transplants to gauge support for the project before a final decision to proceed is made.

Background

The WTP was established in July 1995 and was designed to contribute to:

1. the conservation of Alaska's native wildlife and their habitats;
2. the restoration and maintenance of wildlife diversity;
3. the protection of the state's rich natural heritage; and
4. the enhancement of wildlife values for the benefit of the people.

The purposes of the WTP are to identify concerns that must be appraised and establish a protocol for systematically evaluating those concerns to ensure that the public benefits from transplants substantially outweigh ecological and socioeconomic risks.

Pursuant to the WTP, DWC staff prepared a Scoping Report on wood bison restoration in interior Alaska for consideration by the Director. In August 2006 the Director accepted the scoping report and found that it is in the best interest of the State of Alaska to proceed with considering wood bison transplants to the three locations identified in the scoping report which are: 1) Yukon Flats, 2) Minto Flats, and 3) the lower Yukon/Innoko River area. The Director found the project consistent with the twelve evaluation criteria in the WTP and directed staff to complete the review of the wood bison restoration project according to the WTP and additional guidance he provided. Specifically, he directed that the process take into consideration the extensive documentation and public process that has occurred on the project over the years and not to duplicate work that has already been completed. He also stated that “although existing analyses indicate that wood bison are compatible with other wildlife, it will benefit the proposal to have a final review by experienced Alaskan biologists” and “the need for review by experts on wildlife diseases and parasites is already being met by consultation with Dr. Kimberlee Beckman, DWC Veterinarian, and Dr. Bob Gerlach, Alaska State Veterinarian.”

Members of the Review Committee

1. Kris Hundertmark, University of Alaska Fairbanks, Assistant Professor of Wildlife Ecology (Committee Chairman, experience with wildlife population biology and genetics)
2. Don Young, ADFG/DWC, Fairbanks Area Biologist (responsibilities include management of wildlife on the Minto Flats State Game Refuge)
3. Steve DuBois, ADFG/DWC, Delta Area Biologist (extensive experience with management of the Delta plains bison herd)
4. Tom Paragi, ADFG/DWC, Research Biologist (experience with ungulate habitat requirements and carrying capacity)
5. Todd Nichols, ADFG/Sport Fish Division, Habitat Biologist (experience with grazing ungulates, responsibilities include Minto Flats State Game Refuge permitting)
6. Bob Stephenson, ADFG/DWC, Wood Bison Project Biologist (former Yukon Flats Area Biologist, member of Canada’s Wood Bison Recovery Team and the IUCN North American Bison Specialist Group)
7. Roger Seavoy, ADFG/DWC, McGrath Area Biologist (experience with management of the Farewell plains bison herd, management area includes the lower Innoko–Yukon River site)

The primary duty of the review committee, as defined in the WTP, is to determine whether wood bison restoration is likely to effect a significant reduction in the range, distribution, habitat, or pre-existing human use of other species. The committee was given latitude to evaluate the project according to the criteria in the WTP, and develop additional recommendations on the wood bison restoration project, should they choose to do so. The primary sources of information used by the Review Committee in their analyses were:

- ◆ Reintroducing Wood Bison to the Upper Yukon Valley, Alaska: A Feasibility Assessment (June 1994)
- ◆ The Alaska Chapter-*The Wildlife Society* Technical Peer Review of Reintroducing Wood Bison to the Upper Yukon Valley, Alaska: A Feasibility Assessment, June 1994 (August 1998)

- ◆ Canada's National Recovery Plan for the Wood Bison (October 2001)
- ◆ A Review of Information on Wood Bison in Alaska and Adjacent Canada, With Particular Reference to Yukon Flats (July 2003)
- ◆ Information presented at the Wood Bison Restoration Advisory Group (WBRAG) meetings (April and June 2005)
- ◆ The proposed public review draft of "Wood Bison Restoration in Alaska: A Review of Environmental and Regulatory Issues and Recommendations for Project Implementation"

In his memo approving the wood bison WTP scoping report, Director Robus stated "The Environmental Review of wood bison restoration in Alaska (ER) that is currently being completed will satisfy the WTP requirement for an extensive social and biological risk analysis. Together, these documents (those listed above) satisfy the requirement for a feasibility assessment for all three sites that are being considered for wood bison restoration."

Findings of the Wood Bison Restoration Wildlife Transplant Policy Review Committee

1. **Members of the committee unanimously agreed that wood bison restoration is not likely to effect a significant reduction in the range, distribution, habitat, or pre-existing human use of other species.**
2. Members of the committee also agreed that available information convincingly demonstrates that the wood bison restoration project is likely to meet the Transplant Evaluation Criteria in the WTP.
3. Members of the committee agreed that the available historical information demonstrates that wood bison were a component of Alaska's natural wildlife diversity until fairly recently, and also agreed with the conclusions of Griffith et al. (1998) and Stephenson et al. (2001) that the most likely cause for the disappearance of bison involved the combined effects of unregulated hunting and changes in habitat distribution. They also conclude that wood bison restoration is consistent with commonly used ecological definitions relating to the restoration of extirpated indigenous species, including those used by state and federal agencies and national and international conservation organizations, including the World Conservation Union.
4. Members of the committee recommended that the following points be addressed in any reintroduction plan:
 - a. Accepted strategies are employed to ensure that non-native parasites (e.g., winter tick, *Dermacentor albipictus*) that could pose a substantive threat to native species are not introduced. The risk of introducing winter ticks can be addressed by treating bison with Ivermectin both before and after import. Bison are not a suitable host for ticks, and this approach essentially eliminates the risk of introducing external parasites.
 - b. Cooperative management plans prepared with participation by landowners and other stakeholders should include provisions for reasonable levels of public access for consumptive or non-consumptive uses of wood bison, while recognizing the prerogatives and land management policies of both private and public landowners.
 - c. Management plans should also specify that reintroduced bison populations will be allowed to reach a minimum population of at least 400-500 animals, and where

possible should provide for the reestablishment of larger populations in order to preserve greater genetic diversity over the long term.

- d. Strategies should be implemented to monitor and maintain or enhance genetic diversity of reintroduced herds.
- e. Biological monitoring of reintroduced populations should be given a high priority by DWC. This should include basic population monitoring, and to the extent funding allows, some long term habitat monitoring, recognizing that any effects of bison on other wildlife and the environment are likely to be difficult or impossible to measure until populations approach carrying capacity, and even then may be subtle.
- f. Strategies to ensure that there is no contact between herds of plains bison and wood bison should be included in management plans for areas where contact between the two subspecies might occur in the future.

If these findings and recommendations are followed, and pending additional public review and comment, the Review Committee unanimously endorses a continued effort by DWC to restore wood bison in one or more locations in Interior Alaska.