



## **AMPPE POSITION STATEMENT**

### **PLAN FOR REINTRODUCTION OF PLAINS BISON IN BANFF NATIONAL PARK**

On 09 September 2013 Parks Canada launched the public comment period on the “Reintroduction of Plains Bison in Banff National Park” (BNP). This submission is in response to the invitation from Parks Canada, to comment by the public.

Reintroduction of bison to the landscape of Banff National Park will provide a significant step in assuring the ecological integrity of the park. To quote the eminent Dr. Barney Reeves “*They [Wood Bison] were along with Native firing of the ecosystem, keystone species to maintaining the montagne.*” (pers comm)

Reintroduction of plains bison to Grasslands National Park in Saskatchewan has proven very successful. Establishing a free roaming herd in a mountain landscape will be more challenging.

**The Association for Mountain Parks Protection and Enjoyment (AMPPE)** is fully in favor of the reintroduction of bison to Banff National Park, and we have some recommendations that do not include the proposed Panther River location. We believe that there is a better alternative location in the North Saskatchewan River Valley.

#### **We address Concerns of Bison in the Panther River:**

- **Costs / Budget**
- **Habitat Quality**
- **Habitat Enhancement / Fire**
- **Access**
- **Monitoring and Facilities**
- **Fencing**
- **Transport of Animals**
- **Interpretation and Education**
- **Escaped Bison**
- **Reclamation (if the bison project is cancelled)**

#### **We conclude with Advantages of Bison in the North Saskatchewan River Valley under the above list of concerns and significantly add:**

- **A Federal / Provincial Cooperative Project**
- **The Threatened sub species of Wood not Plains Bison**

**The Association for Mountain Parks Protection and Enjoyment (AMPPE)** is fully in favor of the reintroduction of bison to Banff National Park, but is concerned that the proposed location is remote and difficult to access, resulting in unnecessarily high costs, and not contributing significantly to the involvement or education of the general public.



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We believe that there is a better alternative location at a fraction of the cost with the potential for maximum involvement of the park visitors. The North Saskatchewan River valley is an underutilized portion of the park with a broad, flat, montane eco-region, ideally suited to bison. There is archeological evidence of bison wintering in this area centuries ago. This information has not been utilized in the current reintroduction plan.

There is also the question whether the reintroduction of “Wood Bison” may be more appropriate than “Plains Bison”.

### **CONCERNS OF PROPOSED PLAN for Bison in the Panther River**

#### **Costs / Budget**

Although the plan has been in the works for roughly 20 years, **it does not seem to include a budget or any cost / benefit analysis.**

The Panther River core area has been proposed with no cost – benefit analysis of other potential areas such as the North Saskatchewan Valley in BNP, or the Athabasca valley in Jasper National Park.

#### **Habitat Quality**

The most ideal winter habitat for the bison is “Montane Eco-region”. It is characterized by aspen poplar, Douglas fir, white spruce and grasslands). According to the Biophysical Land Classification of Banff and Jasper National Parks, Vol. 1 “...The elevation of the Montane Eco-region ranges from the lowest elevation in the parks (about 1350 m in Banff and 1000 m in Jasper) to about 1600 m in Banff and 1350 m in Jasper. This boundary is slightly lower on northerly aspects and slightly higher on southerly aspects.” (p. 44)

There is no montane habitat in the proposed re-introduction locations on the Panther and Dormer watersheds.

Panther valley	1830 meters / 6000 feet	Sub-alpine
Dormer valley	1980 meters/ 6500 feet	Sub-alpine
Red Deer valley	1675 meters / 5500 feet	Sub-alpine / some Montane

#### **Habitat enhancement / Fire**

Banff National Park has been conducting official and unofficial prescribed burns for over two decades in the Panther and Dormer area. We would recommend these past burns should be included in the overall plan and cost estimate for the bison re-introduction proposal for this location.

The re-introduction plan requires additional prescribed fires of approximately 1000 hectares to be conducted every year for the next five years. This will require a substantial helicopter budget to transport workers and equipment onsite to prepare fire guards and manage the burns.

#### **Access**

The plan states that no new roads will be constructed, suggesting that the majority of the heavy lifting will require the use of helicopters. All fencing materials for 21 kilometers of exclusion fence must be flown into the Panther area by helicopter, as well as all associated machinery, and personnel. Temporary construction camps will be required. Access by horseback or on foot is long and arduous.



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### **Facilities**

The only facilities to base operations from in the Panther release area are the small warden cabin at Barrier and the old warden house upstream at Windy. Temporary camps will be needed for initial release and monitoring, again requiring helicopter support. There are no facilities for park visitors whether they hike or arrive by horse.

### **Fencing**

A total of **21** kilometers of bison restraint fencing is proposed for the Panther release site. Common practice in North America for fencing bison is a five strand wire fence, smooth wire top and bottom with barbed wire for the three middle strands. Smooth wire top and bottom allows other animals to pass over or under without being torn by the barbed wire.

Given how much a helicopter can lift, and given how much a helicopter costs per hour, for 21 kilometers of fencing, it would seem flying this material in by helicopter will be very expensive. We could not find this included in the budget projection.

### **Transport of Animals**

The proposed Panther River release site requires that individual animals be immobilized and slung into the site by helicopter. Extensive manpower will be required to extricate each animal, place it in recovery position and monitor until standing.

### **Interpretation and Education**

At the Panther release site only a very few very hardy backcountry users will be able to experience live bison with their own eyes, and only after very difficult access on foot or by horseback. Interpretation will be limited to remote cameras and satellite tracking.

### **Escaped Bison**

It will be exceedingly difficult to round-up, hunt or capture bison which leave the park along the Panther River valley or adjacent areas. They may carry satellite transmitters which will provide a general location, but getting to those locations will require helicopter and horseback. Ranchers with adjacent grazing leases have a legitimate concern about bison mixing with their cattle.

### **Reclamation**

If, in the future, the project is cancelled, or the bison abandon the area, reclamation of materials from the Panther River site will require helicopter extrication of 21 kilometers of five strand wire fencing, as well as clean-up of drift fences and other facilities. This will be very expensive, and there is no bond to assure that the reclamation will be completed.



## **ADVANTAGES OF REINTRODUCING BISON TO THE NORTH SASKATCHEWAN, BNP**

### **Costs / Budget**

Since minimal helicopter support will be required in the North Saskatchewan area, overall costs will be significantly less. Much of the infrastructure is already in place and existing facilities can be utilized.

### **Habitat Quality**

According to the Biophysical Inventory for Banff and Jasper National Parks, only 2.9% of Banff is montane habitat. Of that limited habitat type, 77.4 % of the Montane occurs in the lower Bow Valley. The second largest expanse, 19% occurs along the North Saskatchewan River valley.

Nora Kopjar completed an MSc thesis at the University of Alberta in 1989 entitled; “*Alternatives for Bison Management in Banff National Park*”. After extensive examination of the biophysical eco-sites that provided the required feed, Nora identified three potential wintering areas for bison in Banff. These were the lower Bow east of Castle Junction, the lower Red Deer River, and the lower Howse and North Saskatchewan River valleys.

The lower Bow Valley contains a four-lane highway, a transcontinental railway and Banff town site, serving over three million visitors per year. This is not an appropriate area to test a bison re-introduction program, even though there is more preferred habitat here than elsewhere in the park.

Banff	1345 meters	4535 feet	Montane	77.4%
North Saskatchewan	1340 meters	4500 feet	Montane	19%

There is extensive summer range available in Banff National Park for all ungulate species. The limiting factor has always been, and always will be, “available winter range”. Page five of the Plan provides a short description of ideal habitat. “...*When provided with high quality habitat, bison are less likely to roam. Bison prefer primarily grass and sedge habitat, especially areas that have burned in the last 25 years. Recent research shows that there is sufficient high quality habitat to support bison year-round within the park, particularly in the Panther and Red Deer River valleys, and the Fairholme bench of the lower Bow Valley. These locations provide prime habitat where lower elevation, southerly aspects, and Chinook winds combine to produce optimal winter foraging conditions and reduced snow cover.*”

The North Saskatchewan valley fits this requirement perfectly and matches the elevation of the lower Bow Valley (Fairholme bench), yet it was excluded from the above description.

### **Habitat Enhancement / Fire**

An extensive prescribed burn (estimated 20,000 hectares by pilot Ralph Sliger) was conducted five years ago on the south facing slopes above the North Saskatchewan River, both in the park and on adjacent provincial lands. The grasses will be in prime condition.



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Future burns can utilize ground transport for much of the manpower and equipment requirements. The David Thompson Highway parallels the North Saskatchewan River and is a natural firebreak. Many small valley bottom burns can even be conducted without the requirement of helicopter support, thus reducing costs considerably.

### **Access**

Access to North Saskatchewan is by paved highway. There is very limited commercial traffic and speed limits can be reduced. Night time commercial traffic (the prime cause of highway wildlife mortality) can be prohibited. Almost everything is road accessible by paved highway. Materials for fencing and soft release corrals can be trucked directly to the operation site. Helicopter support might only be required to move fence material to extreme ends for additional security.

Monitoring can be carried out by roadside patrol. Visitors have day one access to potential bison viewing. Roadside viewing with spotting scopes is a major activity in Yellowstone; it has the potential to become very popular here as well.

### **Facilities**

The old Saskatchewan Crossing Warden Station has two full houses with kitchens which can be operated year round for staff. There is also seasonal accommodation for campground and interpretive staff which could be utilized in the spring and fall seasons. There is a small barn and corral for holding horses. A large garage can be used for equipment maintenance. There is a power plant to provide electricity. There is also a small office building which could serve as the research headquarters or interpretive center. There is a telephone line serving the site.

### **Fencing**

Less than **five** kilometers of restraint fencing would be required to contain the bison along the park boundary in the North Saskatchewan release area (in contrast to the 21 km required in the proposed plan). There is highway access to the park boundary on the North Saskatchewan. Only limited helicopter transport will be required to place materials along the higher reaches.

### **Transport of Animals**

At the North Saskatchewan release site, animals can be trucked in fully conscious and simply released from trailers or transport trucks directly into the holding facility, and thence the soft release enclosure. There is no requirement for immobilization and its' inherent hazards and recovery monitoring.

### **Interpretation and Education**

At the North Saskatchewan site park visitors will be able to observe the bison almost immediately after the re-introduction. Interpretation displays can be established at the release site and volunteers can be a part of the monitoring program, tracking radio collars from the roads or along nearby trails. Satellite - Video educational links can be established and modified without great expense with the advantage of road access. Tourists have a good chance of seeing the bison, they have no chance in the Panther.



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### **Cultural Reconnection**

The proposed plan points out that ...”Restoring bison to the landscape is an opportunity to restore cultural connections ....” [for indigenous peoples]. This would be especially beneficial to the Sunchild Ochiiese native band along the North Saskatchewan who has no access to oil revenues, as do their relations to the south in the Bow Valley. There are very few opportunities for these peoples who live on the Eastern Slopes west of Rocky Mountain House.

### **Federal / Provincial Cooperation**

Immediately east of the national park boundary along the Saskatchewan River lies the Alberta provincial “Kootenay Plains ecological reserve”, also in need of a large herbivore to complete its ecological integrity.

Involvement of the province will naturally be dependent upon the success of containing the bison within the park. There is no corresponding pinch point similar to the park boundary for the province to contain the bison within the Kootenay Plains Reserve area. If it can be shown that a simple five strand wire fence can contain the bison, then the containment area may possibly be established eastward into the province in future years. This could be a grand Federal / Provincial Bison Reserve.

Further east lies the Rocky Mountain House National Historic Site where they have always maintained a plains bison display herd. The David Thompson Highway from Rocky Mountain House to Saskatchewan Crossing could become “The Buffalo Trail” as a federal / provincial cooperative project.

### **Escaped bison**

Any bison that do breach the boundary fence can be readily located by vehicle from the David Thompson highway along the very open flats of the Kootenay Plains. Native horsemen may even be able to herd the animals back into the park given the open nature of the adjacent lands. There are very few grazing leases in the adjacent area, thus minimizing conflicts with local ranchers.

### **Reclamation**

It will be very easy to remove the limited infrastructure that was required to establish the program in the North Saskatchewan. Less than five kilometers of five-strand fencing along the park boundary can be removed with mechanical assistance at very little expense (as contrasted with 21 kilometers in the Panther). The soft release paddock facilities can be salvaged and trucked away.



**Proposed Alternative Location**



Google Earth image of the North Saskatchewan River valley from Glacier Lake on the left (west) to Abraham Lake on the right (east). The red vertical line in the middle of the image roughly indicates the required 4.5 kilometers of required restraint fencing.



### **Plains or Wood Bison?**

The Biophysical Inventory Vol. 3 states “Wood bison formerly occurred in both Banff and Jasper National Parks, but had been extirpated by the late nineteenth century. ...

Wood bison once occupied the Howse and North Saskatchewan valleys, the Bow River watershed including Simpson Pass, Pipestone River and other side valleys. Clarke (1940) found wallows and skulls in the lower Red Deer River, Clearwater River, Mistaya River and Spray River valleys, and Taverner found a skull in the Cascade valley.” (p 419)

We emailed Dr. Barney Reeves, Professor Emeritus of Archeology at the University of Calgary on some questions of the indigenous bison, his reply is in italics as follows .....

1.) Is there any evidence to suggest that bison would have wintered in the park on a regular basis? In other words, were year round residents.

*The bison which were mountain bison not plains or woodland in the North Sask Valley wintered on the Kootenai Plains, good historical evidence from Thompson and Henry as to this and timing of movement. Verified by arky specimens found in sites there I tested in early 70's before Bighorn Dam. Bison also probably wintered on the Ya-Ha-Tinda, bison bones found there as well.*

*On the Bow, whether they wintered in today's boundaries eg. On the grasslands at the airport or further out at Canmore can't say, but bison bones have been found in arky sites out towards the Gap. Would have to check the seasonality.*

2.) Is there enough archeological evidence from skulls found in Banff and Jasper to distinguish whether the animals of two centuries ago were Plains or Wood bison?

*Yes. When the initial classification was done the mtn bison skulls collected by the American Museum of Natural History or examined from Banff were compared to those of known race Wood Bison from Wood Buf. NP and Plains from ?? ( I would have to look it up- it's an old memoir from the AMNH authored by Skinner and Kaisen), so since wood and mtn bison live in woods and have similar diets and behaviors they classified them as wood bison. Read “The Park Bison” by Mary Meagher which is a great piece on the bison in Yellowstone and the retention within those herds of mtn bison genes. Also Val Geist's book on bison.*

Plains bison are held on private ranches across Canada and the United States. They are common in many national parks and wildlife reserves. Wood bison on the other hand are limited to the south section of Elk Island National Park in Alberta, and Wood Buffalo and Nahanni National Parks in the Territories. The Committee on the Status of Endangered Species in Canada (COSEWIC) considers wood bison to be a **threatened** subspecies. It may be more appropriate to re-introduce wood bison.

*Prepared by: Rick Kunelius, Banff, 30 October 2013*