# Caribou Conservation Breeding



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- An insurance population and production of healthy individuals.
- Part of a broader recovery plan greatly decreasing extinction risk

# **How does Conservation Breeding fit into program delivery?**

- Safeguard location for herds/animals immediately threatened
- Following ~5 year start-up timeline, can support herds on an ongoing basis
- Net new individuals as opposed to translocation
- Opportunity for public donations, support & engagement

# What is anticipated duration of Conservation Breeding

20-30 years, dependent on larger recovery strategy

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#### Recovery

Behavioural trade-offs created by captivity can be mitigated by releasing first-generation caribou W2W translocations can also mitigate these trade-offs as a complementary management approach

#### **Delivery**

Unknowns concerning donor herds resilience to W2W approaches at this time make CB a safeguard

Facility mitigates potential extirpation threats over the next few years by providing a place to house select threatened populations in short-term

#### **Duration**

With increased duration (and number of released individuals), cost per individual is decreased as initial start-up costs are diluted.

### Conservation Breeding Program: Public & Stakeholder Communications and Engagement Strategy

CONFIDENTIAL DRAFT: September 15, 2020

#### 1. Purpose:

The purpose of this strategy is to provide recommendations and a high-level work plan for communicating with and engaging stakeholders and the broader public in the creation, construction, and operation of a Conservation Breeding Center for Southern Mountain Caribou.

The strategy is informed by a review of background material, meetings with staff and subsequent informal discussions.

#### 2. Situation Analysis:

As part of a larger recovery strategy for Southern Mountain Caribou British Columbia has decided to pursue creation of a foundation to build and operate a caribou breeding program.

Working with First Nations and Canada the Province intends to announce an interest in the creation of a breeding program and initiate external discussions with a goal of building a proposal to government. Government funding has not been secured and discussions will be predicated on:

- Overall proposal subject to approval of government.
- Support and collaboration of First Nation, local governments, and stakeholders.
- Integration with a larger caribou conservation strategy.
- General agreement on the rescue and use of animals from non-viable herds, or identification of an alternative source of breeding animals.
- BC contributing no more than one third of start-up costs (\$3M).
- BC providing a declining operating fund contribution (approximately 20% (\$0.16M/yr) at year five).
- Matching/significant financial support from Canada.

Parks Canada has identified funds to create a Caribou breeding facility for the purpose of restoring herds within the Banff – Jasper National Parks. The degree of coordination and collaboration possible with this facility has not been fully explored.

An independent Caribou Conservation Breeding Foundation (CCBF) has been formed by interested parties. The viability of this foundation to address the needs of government and others in setting up and operating a breeding center and their role in preliminary discussions is unclear.

One First Nation has indicated support for the establishment of a breeding center. Others have yet to engage. Given the *Declaration on the Rights of Indigenous Peoples Act and 2021 BCSC 1287, Yahey v. British Columbia* court decision interest in Southern Mountain Caribou recovery efforts is expected to be high. Particularly regarding recovery goals, predator management, source of breeding animals and location of the center.

Using scientific, animal health related criteria, a preferred location for the breeding facility has been identified close to Invermere. Interest from other communities in exploring alternative locations is likely to be high.

The overall Southern Mountain Caribou recovery strategy is not public and is expected to be of significant interest and debate. The degree of academic support for elements of the strategy, including conservation breeding is unclear. Community and industry support will be influenced by perceptions of socio-economic impacts of the overall strategy. Acceptance, understanding and support for a conservation breeding center must be obtained within the context of the larger strategy.

#### 3. Communication and Engagement Goals

- Support communication and engagement on the larger Caribou Recovery Strategy
- Obtain support for a Southern Mountain Caribou Conservation Breeding Center and Program from:
  - First Nations whose territory overlaps the range of Southern Mountain Caribou
  - o Canada
  - Local communities, stakeholders and industry
  - Academics
- Identify a viable legal and financial NGO to construct and operate a Southern Mountain Caribou Conservation Breeding Center
- Confirm location of potential breeding center
- Educate the public on conservation breeding
- Create interest in financial support from all potential donors

#### 4. Audiences & Contacts

BC Government staff

#### Canada

- Environment and Climate Change Canada
  - o Renée Lapointe, PhD, Manager, Strategic Priorities, Canadian Wildlife Service
- Parks Canada
  - Dave Argument, Jasper National Park Conservation Manager
  - Alan Fehr, Jasper National Park Superintendent

#### **First Nations**

- Blueberry River
- Canim Lake
- Doig River
- Halfway River
- Horse Lake
- Ktunaxa
- Lheidli T'enneh
- Lhtako Dene
- Lower Similkameen
- McLeod Lake
- Okanagon
- Okanagan Nation Alliance
- Penticton
- Saulteau
- Simpcw
- Splats'in
- Tsilhqot'in National Government
- Upper Nicola
- West Moberly
- Weskbank
- William Lake
- Xats'ull

#### Local government

- Regional District of...
- Invermere, McBride, Golden...

#### Other Government

- Alberta (Sue Cotterill/ Dave Hervieux)
- US Fish & Wildlife Service (Brittany Morlin)

#### Caribou Conservation Breeding Foundation

#### **General Public**

#### Stakeholders & important NGO's:

- Forestry
  - o COFI
  - Interior Logging Association
  - Association of BC Forest Professionals
  - BC Association of Community Forests
- Ranching Cattlemen's Association

- BC Wildlife Federation
- Guide Outfitters Association
- BC Chamber of Commerce/Chapters
- BC Outdoor Recreation Council & other recreation groups
- Tenure holders proximate to or overlapping potential conservation center
- Yellowstone to Yukon Conservation Initiative (Aerin Jacob)
- Calgary Zoo Foundation (Axel Moehrenschlager)
- The Wilds (Dan Beetum)
- Wildlife Preservation Canada (Jessica Steiner)

#### Potential donor entities other than above

- Mining AMEBC, BC Mining Association
- Foundations
- Other.....

#### Academics

• See Table 1

#### 5. Communications and Engagement Work Plan

#### **Strategic Direction:**

In achieving desired communication and engagement goals, the work plan seeks to ensure the public consultation and engagement process builds trust through transparency, availability of accessible public information, and engagement opportunities. The work plan recognizes the importance of collaboration with Canada and First Nations, the need to coordinate or work within the engagement strategy for the overall Caribou recovery strategy, and the value of integrating frontline staff into the planning and implementation of the plan.

Phase 1 (October – December 2021) - confirming approach with Canada, initiating discussion with First Nations and others as part of larger herd planning discussions. This phase of communications and engagement will be focused on:

- Confirming/building partnership with Canada
  - Discussion with Environment and Climate Change Canada on their potential role and support in establishing facility, including exploring relationship with Parks Canada initiative.
  - Potential Ministerial contact to be discussed with above.
- Direct communication with key First Nations representatives who have expressed interest in involvement/ governance of facility.
- Soft exposure of concept to entities identified as contacts for herd planning introduce our thinking and approach and confirm specific interest/support for facility.

- Internal work to confirming phase two of engagement strategy
  - Connection with any larger recovery strategy engagement process.
  - First Nation consultation and engagement strategy (differentiating between First Nations impacted and engaged in recovery versus those impacted or interested by a specific breeding facility/program).
  - Role of existing Caribou Conservation Breeding Foundation
- Defining legal needs/approach to minimize risk to government of financial loss or failure of foundation model.
- Secure resources for work plan implementation.

#### Phase 2 - Early Engagement and Communications (January – April 2022)

This phase will focus on providing clear and concise information about the partners interest in a conservation breeding center; the prerequisites and nature of government support in establishing and operating a center decision. Information needs to include anticipated timelines, engagement process and identification of key variables.

Recommended communications and engagement activities during this phase include:

- Prioritized list of key messages (supported by a comprehensive Q&A). Anticipated key issues requiring messages and answers include:
  - Openness on location.
  - Relationship to Parks Canada facility.
  - Source of breeding animals.
  - Relationship to larger conservation strategy.
  - Costs & governance.
- Communicate with local MLAs.
- Training/Information for frontline staff in the region provide opportunity for local staff to gain information on imitative.
- Building key stakeholder relationships prioritize efforts/outreach by ability to
  contribute and likelihood to support establishment of conservation center. Develop
  plan to provide steady stream of information and updates based on stakeholder
  interests. Early written communication with local government and key stakeholders.
  Phone contact with identified key influencers.
- Media Relations strategy identify key media outlets and prepare release on interest in establishing a conservation center
- Outreach to key academics
- Identify/catalyze creation of viable foundation
  - Approach to existing CCBF is key. If they represent an acceptable nucleus for a foundation and are open to new members, government prerequisites, etc. they could be a base from which to build. Expect approach is to be open to that group or a modified version taking on role but allow for other to step forward.

- In the eventuality of multiple interest should develop criteria for choosing a foundation.
- Integration with with larger recovery strategy engagement.
  - Brochure explaining caribou recovery/conservation breeding for caribou concisely, including a short FAQ section, anticipated timeline, and where to access more detailed information. The brochure would be available online, in MLA offices, and at FrontCounter BC locations in the region. Consideration should be given to a 'brochure video' (e.g. animation style) that provides shareable information in 30-60 seconds.
  - 'For more information'- ensuring interested members of the public can have their questions and enquires (by phone and email) responded to in a timely and effective manner.
  - regular email updates keeping key groups up to date on establishment of conservation center through an email distribution list updates approximately once every 4 weeks and when there is important news.

#### Phase 3: Ongoing Engagement and Communications (April 2022 - TBD)

Focus on continuing to build key stakeholder relationships, strengthening regular two-way information sharing and finalizing a proposal to the partners on establishment and operation of a conservation breeding center. Recommended communications and engagement activities during this phase include:

- Continue and update phase two tactics
- Ongoing liaison and check-ins with MLA offices
- Partnership meetings to ensure cohesiveness with partners
- External small group meetings responding to interests/invites of specific groups. If possible, limit participation to small numbers to maximize information exchange.
- Scheduled availability for audio, video or office contact low-key availability for stakeholders to talk (e.g. Friday afternoons).
- Participation in meetings hosted by MLA(s) and community leaders
- Ongoing media relations strategy seek partnerships with local news organizations to foster public education. Background briefings as necessary.
- Identify bridge-building opportunities to strengthen support for recovery strategy and conservation breeding (e.g. educational opportunities with local school districts; economic opportunities associated with center).
- Select/confirm potential foundation and location- develop draft MOU and/or necessary draft legal instruments to reflect potential relationship between partners (government) and foundation.

#### 6. Finalize proposal and submit for partners/government approval (Target date TBD)

- Obtain necessary government approvals and financing
- Announce successful partnership

#### **Table 1- Academics**

# (Taken from Participants List- Caribou Evidence Workshop Jan. 2021)

Name	Email	Organization		
Adam Ford	adam.ford@ubc.ca	University of British Columbia		
Anna Calvert	anna.calvert@canada.ca	ECCC, Canada		
Bill McShea	mcsheaw@si.edu	Smithsonian Conservation Biology Institute		
Bryan Macbeth	bryan.macbeth@canada.ca	Parks Canada		
Budhan Pukazhenthi	pukazhenthib@si.edu	Smithsonian Conservation Biology Institute		
Cheryl-Ann Johnson	cheryl-ann.johnson@canada.ca	ECCC, Canada		
Chris Johnson	chris.johnson@unbc.ca	University of Northern British Columbia		
Clayton Lamb	clayton.lamb@ubc.ca	Universities of BC & Montana		
Evan Blumer	osomonoevan@gmail.com	OsoMono LTD		
Gaby Mastromonaco	gmastromonaco@torontozoo.ca	Toronto Zoo		
Janice Rowell	jrowellak@gmail.com	University of Alaska Fairbanks		
Jo Anne Smith-Flueck	j.smith@deerlab.org	DeerLab		
Jocelyn Poissant	Jocelyn.Poissant@ucalgary.ca	University of Calgary		
John Blake	jeblakeak@gmail.com	University of Alaska Fairbanks		
Josh Nowak	josh.nowak@speedgoat.io	University of Montana, Speedgoat Wildlife Solutions, LLC.		
Kathy Traylor-Holzer	kathy@cpsg.org	IUCN SSC Conservation Planning Specialist Group		
Kirby Smith	kirbkate@gmail.com	Former Government of AB Biologist		
Maria Cavedon	maria.cavedon@ucalgary.ca	University of Calgary		
Maria Hallock	maria@yukonwildlife.ca	Yukon Wildlife Preserve		
Milla Niemi	Milla. Niemi@metsa. fi	Metsähallitus		
Nina Trontti	nina.trontti@korkeasaari.fi	Korkeasaari Zoo		
Robin Steenweg	robin.steenweg@canada.ca	Canadian Wildlife Service, UBC		
Sakari Mykra-Pohja	Sakari. Mykra-Pohja@metsa. fi	Metsähallitus, Wildlife Service, Finland		
Stephanie Leonard	stephanie@aseniwuche.com	Aseniwuche Winewak Nation of Canada		
Alex (Sandy) Cummings	sandy.cummings@canada.ca	Parks Canada		
Amy Cairns	amy.cairns@canada.ca	Parks Canada		
Amy Chabot	achabot@lionsafari.com	African Lion Safari		
Diane Casimir	diane.casimir@canada.ca	Parks Canada		
Geoff Skinner	geoff.skinner@canada.ca	Parks Canada		
Jean Polfus	jean.polfus@canada.ca	Canadian Wildlife Service, ECCC, Canada		
Jen Theberge	jen.theberge@canada.ca	Parks Canada		
Laura Finnegan	lfinnegan@friresearch.ca	fRI Research		
Marco Musiani	mmusiani@ucalgary.ca	University of Calgary		
Pierre Comizzoli	comizzolip@si.edu	Smithsonian Conservation Biology Institute		

Todd Shury	todd.shury@canada.ca	Parks Canada	
Tom McDonald	tom@aseniwuche.com	Aseniwuche Winewak Nation of Canada	
Alan Fehr	alan.fehr@canada.ca	Parks Canada	

#### 1. What is conservation breeding?

Conservation breeding is the long-term breeding of endangered species for the benefit of wild populations. A breeding herd is maintained at a conservation centre. The herd produces healthy young animals for release to the wild.

Conservation breeding herds have better conception rates. Mortality of newborns is lower, and they grow faster. Animals can be used to augment or establish new herds.

#### 2. What is a wildlife conservation centre?

Conservation centres are facilities where animals are bred for the preservation of genetic diversity and the restoration of wild populations. They can also be used for scientific research and education.

Typically, they have large, fenced enclosures designed to allow the animals to display natural behaviors, an administrative building, a veterinary clinic and species-specific handling systems. They are often located outside of the geographic range of the species at locations better suited to look after the animals and ensure an effective breeding program.

#### 3. Why is conservation breeding of Caribou necessary?

British Columbia and Canada have committed to reversing the decline of Caribou herds. Conservation breeding can support the recovery of at-risk caribou herds by producing new, healthy animals that can be introduced into the wild where we are confident that the factors leading to population decline have been addressed.

# 4. Why are two caribou conservation breeding projects needed i.e. why can't SMC be produced at the Parks Canada facility?

Parks Canada (PCA) is conducting a feasibility assessment exploring conservation breeding as a recovery tool for the south Jasper herds (SMC DU8), located within the Jasper National Park, Alberta. The PCA project would not directly benefit SMC DU9, however, the B.C. and PCA Caribou Conservation Breeding Project Teams have been working together, sharing resources and expertise, to develop a collaborative approach and the respective project plans.

If both projects are approved, there are significant advantages with two separate conservation centres. Learning processes are expedited, opportunities for adaptive management and sharing of information and staffing are increased. Also, in simple words, "we wouldn't be putting all eggs in the same basket". For example, if a forest fire or an infectious disease decimated one breeding herd, there would be back-up from which the breeding herd could be rebuilt, assuming ongoing genetic analyses establish DU8 and DU9 animals are compatible.

If both projects receive executive approval, it is expected they would not compete for funds.

#### 5. Where will the conservation centre be located?

The final location has not been determined. A site in the Kootenay Trench, near Invermere has been identified based on scientific criteria well-drained soils, healthy forest cover, minimal slope,

moderate precipitation, proximity to infrastructure and services, distance from wild caribou, livestock and human disturbance, accessibility sand availability of Crown land.

#### 6. What is the cost of a caribou conservation centre?

Construction cost is estimated at 10 million dollars). The annual operating budget is estimated at 800,000 dollars.

#### 7. Who is expected to fund the conservation centre?

A funding model that involves the B.C., Canada and private donors is proposed. The Province is prepared to provide one third of start-up costs, a long-term Crown land lease and a portion of the first 10 years of operating costs

#### 8. Who would run the conservation centre?

A non-for-profit organization will be needed to establish and manage the centre. The B.C. government would work with the nonprofit organization to ensure the conservation breeding program aligns with provincial caribou recovery goals/objectives.



#### BRIEFING NOTE FOR DECISION

DATE: April, 2021

PREPARED FOR: Honourable Katrine Conroy

Minister of Forests, Lands, Natural Resource Operations and Rural Development

Honourable George Heyman

Minister of Environment and Climate Change Strategy

**ISSUE:** Establishment of a Southern Mountain Caribou Breeding Program

(Rescue of non-viable Southern Mountain Caribou herds)

#### BACKGROUND:

In 2014, Environment Canada outlined a recovery strategy for Southern Mountain Caribou with the goal of achieving self-sustaining populations sufficiently large to support traditional Aboriginal harvesting activities. In 2018, Environment Canada determined that objectives were not achievable without immediate intervention and that mitigation measures should be immediately undertaken.

British Columbia and Canada signed the Bilateral Conservation Agreement for the conservation of Southern Mountain Caribou on February 21, 2020. British Columbia committed to achieving stable or increasing herd populations. The Agreement identifies measures to support this goal and commits to evaluating the benefits of a breeding program and developing and implementing a plan of action based on that evaluation.

The first stage evaluation has been completed and concluded that conservation breeding is potentially a valuable tool for the restoration of herd populations. Key findings are:

- Foundation-run breeding programs commonly contribute to successful wildlife recovery.
- Woodland caribou are known to thrive and reproduce well in captivity.
- Advanced assisted reproduction technology exists for caribou.
- A viable conservation centre site exists on Crown land near Invermere.
- Breeding would support caribou recovery by:
  - creating a population that insures against extinction.
  - preserving and enhancing genetic diversity.
  - allowing for reinforcement of herds with healthier, robust individuals.
  - opening the possibility of reintroducing herds where habitat suitability has been restored (including the Canada-USA transboundary populations), without depleting wild herds.
  - creating research opportunities that enhance understanding of caribou and our ability to recover herd's.
- Stock for the conservation centre could be obtained through rescue of the three non-viable southern mountain caribou herds.



Conservation breeding of caribou would require a substantial investment of public resources and would be a high-profile initiative with significant public and academic interest. It is important that the decision to start such a program be fully informed by available evidence and indigenous, expert and stakeholder engagement. Initiating this engagement will build expectations and a decision is required whether, and under what conditions, British Columbia will support establishment of a caribou breeding program.

#### **DISCUSSION:**

#### History of caribou conservation breeding

Two early (1938, 1986) caribou breeding projects in eastern North America failed due to exposure to the then little-understood fatal meningeal worm at the release site. More recently (1970s), breeding at a worm-free site in Québec led to the successful reintroduction of the Charlevoix caribou herd.

Parks Canada has determined that conservation breeding is necessary to recover caribou in Jasper National Park and is seeking funding for the program. Québec is developing a breeding program to support the recovery of its most vulnerable herds.

British Columbia developed plans for a caribou breeding program in 2001 and 2011. They were not implemented due to lack of funding and/or partnerships. In 2018, the FLNRORD Minister approved the capture of the remaining Purcell South and South Selkirk animals to use as breeding stock but logistics dictated that the animals be translocated to existing herds.

#### Public perception of conservation breeding

Conservation breeding is generally well perceived and accepted by the public if it is part of a comprehensive species recovery plan. The Vancouver Island marmot and spotted owl programs in BC are well known and supported. Some stakeholders will be concerned if they perceive conservation breeding as a substitute for habitat protection and restoration measures. It is essential that conservation breeding be presented as a compliment to habitat management and the larger recovery strategy.

A decision to support and explore a breeding program should increase public confidence in governments commitment to caribou recovery. It offers an opportunity to build synergy with First Nations, local government and industry stakeholders which have been critical of their engagement.

#### Potential partners in a Caribou Conservation Breeding Foundation

Canada has committed to evaluating of a breeding program and is likely to be interested in supporting a foundation. Several non-for-profit organizations and First Nations have indicated support, including the International Caribou Foundation, Global Wildlife Conservation, Nature Conservancy of Canada, TheWilds, Wildsight, the Toronto Zoo, the Canadian Wildlife Federation, the National Wildlife Federation, Conservation Northwest, Montana Fish, Wildlife & Parks, the National

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caribou Reproductive Network, the Shuswap Indian Band, the Kootenay Tribe of Idaho and the Kalispel Tribe of Indians support breeding for recovery and re-establishment of transboundary caribou populations.

Parks Canada is also a potential partner. They are pursuing breeding as a recovery tool for the Jasper herds, but their project would not directly benefit other herds. If their project is approved, there is a good possibility of a collaborative approach that reduces projected costs. There are significant advantages such as resource sharing; expedited learning and increased assurance of maintaining a viable breeding herd.

#### First Nations Support for a caribou breeding program

Early discussions with First Nations have been positive. Creation of partnerships with the Ktunaxa and Shuswap Nations would be sought if approval is given to pursue the creation of a breeding program foundation.

#### Cost & funding model for the caribou conservation centre

Construction cost of a breeding centre is estimated at 10 million dollars (including a 25% contingency). This excludes the cost of the Crown land. The annual operating budget is estimated at 800,000 dollars.

A funding model that involves the B.C., Canada and private donors is proposed. Most wildlife breeding programs, including the Vancouver Island Marmot Recovery Program, are managed by non-profit foundations. This model increases the likelihood and ease of private and public contributions to the program. Government may participate on the board, contribute towards start-up and/or provide operational support. Typically, a quasi-legal agreement is established outlining responsibilities and linkages between government, its recovery strategy and the non-profit organization.

#### Factors to be fully evaluated as part of final assessment:

#### Proposed site of a conservation center

The proposed (236 ha) site for the conservation centre is near Invermere. This site is optimal for animal health/welfare and ease of operation. The site should maximize the caribou recovery potential of a breeding program. Site selection criteria were based on experience breeding non-domestic ungulates and caribou maternity penning. They included soil drainage, forest cover, minimal slope and relief, moderate precipitation, > 150 ha, proximity to infrastructure/services, accessibility and distance from free-ranging caribou, livestock and human disturbance. Other locations may be explored.

#### Stocking the conservation center - Rescue of non-viable Southern Mountain Caribou herds

Three southern mountain caribou herds (Frisby-Boulder, Columbia South and Narrow Lake) are very small and classified as non-viable. Even with aggressive habitat management these herds will soon

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be permanently lost. The animals could be translocated to other wild herds to increase their population but this would result in the extirpation of all three herds with no obvious potential for future reintroduction or significant long-term recovery impacts. Alternatively, these animals could form the founding stock for a conservation breeding program.

A conservation centre would require 10-20 breeding females to begin operations, gradually increasing to 40-50 breeding females at full capacity. Rescuing the non-viable herds would support the establishment of a breeding program while minimizing impacts to wild herds. At full capacity, the program could produce 14-18 female calves per year, supporting herds that are in danger of becoming non-viable in the long-term.

Given the imminent threat of extirpation of the non-viable herds, rescue as soon as possible is recommended (winter 2021-22). In the short-term, rescued animals could be housed in Phase 1 of a BC Caribou Conservation Centre or in existing maternity pens. The cost of rescue of the three non-viable herds is estimated at \$120,000.

#### Suitable habitat exists or will exist to release animals to

Three potential herds (Barkerville, Ground Hog and Central Selkirk) have been identified as potential augmentation candidates. It is believed that the habitat these herds exist in is relatively stable, threats to caribou (except low population size) have been largely mitigated and post release mortality will be acceptable if appropriate monitoring and management continues. Other potential augmentation or reestablishment areas will be explored as part of conversations to create a breeding program.

#### Conservation breeding is advantageous and complementary to other, planned recovery strategies

With the substantial commitment and expenditure required to establish a viable breeding program it is important the program is necessary or significantly advantageous in improving the likelihood of recovery and /or resilience of southern mountain caribou. Decisions are still required on what herds will be targeted for recovery and which recovery strategies (maternal penning, feeding programs, direct translocation, fenced predator exclusion areas, predator control) will be applied where. Conservation breeding can potentially complement all these strategies and can provide an insurance population safeguarded from unforeseen events. A spring workshop is planned to assess the specific applicability of conservation breeding to the overall recovery strategy.

#### **OPTIONS**

Option 1: Do not pursue a conservation breeding program at this time

Pros:



- A clear decision not to pursue conservation breeding may expedite negotiations with Canada
  on the viability of recovery in the southern herds that are extirpated or near extirpation.
- No immediate expenditure on a breeding program.

#### Cons:

- The caribou recovery strategy cannot be enhanced except through wild-to-wild translocations:
  - No net herd augmentation despite high logistical burden (capture & translocation) associated with wild-to-wild translocations;
  - Require agreement on availability of donor herds;
  - Wild-to-wild translocations can only occur once wild herds are sufficiently recovered to qualify as donor herds;
  - No opportunity for research and improvement of health of animals used to reinforce herds.
- A technically feasible strategy that overall adds animals through a collaborative effort and private, non-governmental investments is foregone.
- An opportunity to build synergy on caribou recovery through engagement on a net gain, less controversial strategy is foregone.
- The Caribou Recovery Program may be perceived by the public, First Nations, non-governmental organizations and by Canada as not fully committed to caribou recovery.
- Opposition could exist in allowing non-viable caribou herds to become extirpated.
- Increases the risk of intervention by Canada or successful litigation by outside parties.
- An opportunity to advance First Nation reconciliation is missed.

#### Option 2: Pursue creation of a foundation to build and operate a caribou breeding program.

Working with First Nations and Canada announce the interest in the creation of a breeding program and initiate external discussions with a goal of building a proposal to government. Discussions would be predicated on:

- Agreement subject to approval and funding by government;
- Support and collaboration of First Nation, local government and stakeholder;
- Integration within the larger caribou conservation strategy conservation breeding is a feasible, effective addition to the overall recovery strategy
- General agreement on the rescue and use of animals from non-viable herds, or an alternative source, for the breeding program.
- Minimizing start up and operating cost contributions from BC:
  - providing no more than one third of start-up costs (\$3M);
  - accessing a long-term Crown land lease for the conservation centre site;
  - o declining operating fund contribution (approximately 20% (\$0.16M/yr)) at year five;
  - matching start-up and operating fund contribution from Canada.

Pros:



- Demonstrates full commitment to caribou recovery.
- Promotes a proven, feasible method to reinforce caribou populations that does not involve sourcing animals from wild herds.
- Promotes a governance and financial model for caribou breeding which is based on First Nation, Canada, public and industry support.
- Demonstrates willingness to work collaboratively with First Nations, Canada, local government and stakeholders.
- Reduces the risk of intervention by Canada or successful litigation by outside parties.
- Increases BC's stature as a leader in wildlife conservation.
- Creates research opportunities to enhance our understanding of caribou and improve recovery strategies
- Creation of short- and long-term employment opportunities.

#### Cons:

- Requires further expenditure for exploration of breeding program and governance model.
- Creates expectation of financial support for a breeding program.
- Reinforces the need for successful mitigation of underlying causes of caribou population decline.
- Stakeholders may question consideration of breeding outside of a larger caribou conservation strategy or be concerned breeding will promote reestablishment of herds.
- Less ownership and control than a government owned and managed breeding program.
- Negotiations and securing of outside funding may take longer or may not be successful, risking viability of some herds.
- Opposition to removing caribou from the wild and placing them in captivity may exist.

Recommend	lation: C	)ption 2
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Attachment(s):
PREPARED BY:

#### REVIEWED BY:

	Initials	Date
DM		
Associate DM		
DMO		
ADM		
Program Dir/Mgr.		

Appendix A

#### Implementation Plan/Process for establishing breeding program

