

**Draft Scoping Report
for the Preparation of a Harvest Management Strategy in
the Canadian Range of the Porcupine Caribou Herd**

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Executive Summary

The Porcupine Caribou Herd (PCH) is a large population of barren ground caribou that ranges across northeastern Alaska, Yukon, and northwestern Northwest Territories. The herd provides an important source of food that contributes substantially to meeting the subsistence needs of Aboriginal people living within the range of the herd, as well the needs of non-native hunters.

The Porcupine Caribou Management Agreement (1985) was established to coordinate management efforts towards conservation of the herd and to maintain and protect special harvesting rights in the Porcupine Caribou for native users, while providing for other users to share in the harvest.

The Challenge

A sense of urgency should drive the development of a harvest management strategy for the herd. Although productivity levels for the PCH have been comparable to other herds, trend lines indicate a declining population. Suspected increasing “natural” mortality, climate change impacts whose effects on the herd are uncertain, actual and potentially-increasing development pressures within the Alaskan and Canadian range of the herd – these are all causes of growing concern about the future well-being of the herd and of the communities that depend on it for a substantial portion of their household livelihood. If the herd continues to decline, harvesters will experience increasing difficulty in meeting the needs of their communities.

In the absence of a harvest management strategy that offers a range of harvest management options, conflicts between users, native user communities, and governments will likely increase. The result is likely to be the worst of management outcomes: management through force of circumstance and by crisis. This is a scenario that all of those with a management interest in the herd want to avoid.

Although the 2004 population census of the herd may present a more optimistic picture, many indicators currently suggest that the window of opportunity for an approach to harvest management planning that can pursue a broad range of proactive management options is narrowing, perhaps rapidly. There are good grounds for planning a harvest management strategy as soon as possible.

Harvest Management Issues

There are significant challenges in developing a harvest management strategy for the Porcupine Caribou Herd. The international range of the herd is jurisdictionally complex; the Canadian range is only moderately less so. A multitude of federal, territorial, and Aboriginal government organizations and agencies have an interest in the management of the herd. The respective interests and preferred population management approaches vary across native user communities and user groups. The security of Aboriginal harvesting rights is an especially sensitive interest that impinges upon traditional values and contemporary management practices, including harvest management.

Harvest Management Strategy

Three planning instruments are proposed to address the identified harvest management issues. Together they represent a harvest management strategy for the Porcupine Caribou Herd. In sequence, they can be considered a set of “building blocks” for developing and implementing the strategy over several (3) years.

1. A PCH Harvest Management Planning Protocol will establish:
 - the planning process for a harvest management strategy
 - the roles and responsibilities of the Porcupine Caribou Management Board (PCMB), governments (territorial, federal, Aboriginal), and representative authorities of native user communities in the planning process
 - commitments by the partners to participate

2. A PCH Harvest Management Plan will establish:
 - an agreed-upon framework for managing the harvest of Porcupine Caribou by native users and other users, which meets the objectives and requirements of the PCMA and land claims and self-government agreements
 - harvest management goals and strategies for the herd under different population scenarios

- the roles and responsibilities of the PCMB, governments, and representative authorities of native user communities in harvest management
3. A PCH Harvest Management (User) Agreement, between native user communities and with the PCMB, will:
- Recognize the objectives and principles of the PCH Harvest Management Plan
 - Establish a means for sub-allocation of the native user allocation between native user communities
 - Establish conservation and harvest commitments that can be enforced through regulations

Planning Process

A planning process for the development of a PCH harvest management strategy should include the following features and elements:

- A phased, multi-year approach that develops the discrete components of a harvest management strategy as a set of “building blocks”
- A community-based approach that emphasizes local participation and partnerships
- Regional gatherings of participating governments and organizations to back-stop a community-based approach.
- An educational approach that seeks to inform all users, as well as governments and representative authorities of native user communities, about critical issues associated with herd management and harvesting rights
- An effective communications program that generates community and user group awareness of the harvest management planning process and how they can participate
- Establishment of new working relationships and clarification of existing ones between the PCMB, Aboriginal governments, representative authorities of native user communities, and organizations representing resident and non-resident harvesters
- Identified financial sources and dedicated financial resources to support a harvest management planning process facing significant challenges

Work Plan

For planning purposes, general tasks and activities are organized over several phases and years, with a view to building community participation and partnerships first, and subsequently compiling technical information from science-based, local, and traditional sources, as well as identifying harvest management options.

Phase One - Build the Foundation

Phase Two - Compile Information and Harvest Management Options

Phase Three - Prepare, Review, and Recommend Harvest Management Plan and Agreement

Phase Four - Plan Implementation

1. Introduction

The Porcupine Caribou Herd (PCH) is a large population of barren ground caribou that ranges across northeastern Alaska, Yukon, and northwestern Northwest Territories. It is the eighth largest herd in North America and is an important part of the northern Yukon's environment. The herd also provides an important source of food that contributes substantially to meeting the subsistence needs of Aboriginal people living within the range of the herd, as well the needs of non-native hunters.

Range of the Porcupine Caribou Herd



Source: Department of Environment, Yukon Government

The wellbeing of many northern people and communities is tied to the wellbeing of the Porcupine Caribou herd. For this reason, perhaps more than any other, management interest – locally, regionally, nationally, and internationally – in this herd has been consistently very high.

The herd remains physically healthy today. However, although its estimated population has varied significantly over the last 30 years, a continued population

decline since 1989 has brought heightened management attention to a range of factors affecting herd decline and recovery.

It is generally agreed that over-harvesting could not have played a part in the recent population decline. However, the effects of the harvest on the population are not fully understood.

Porcupine Caribou Herd management includes harvest management. In the event that the population continues to decline, the Porcupine Caribou Management Board (PCMB) seeks to ensure that harvest management strategies are sufficiently developed so that they represent a credible and acceptable management option, among others that may be available in the future, if circumstances warrant their introduction.

The PCMB faces significant challenges. The international range of the Porcupine Caribou Herd is jurisdictionally complex; the Canadian range is only moderately less so. A multitude of federal, territorial, and Aboriginal government organizations and agencies have an interest in the management of the herd. The respective interests and preferred population management approaches vary across native user communities and user groups. The security of Aboriginal harvesting rights is an especially sensitive interest that impinges upon traditional values and contemporary management practices, including harvest management.

This report has been prepared at the request of the Porcupine Caribou Management Board (PCMB) to facilitate discussions and work towards the preparation of a harvest management strategy or plan for the Porcupine Caribou Herd.

The report outlines key elements and matters to be addressed in a Canadian harvest management strategy.

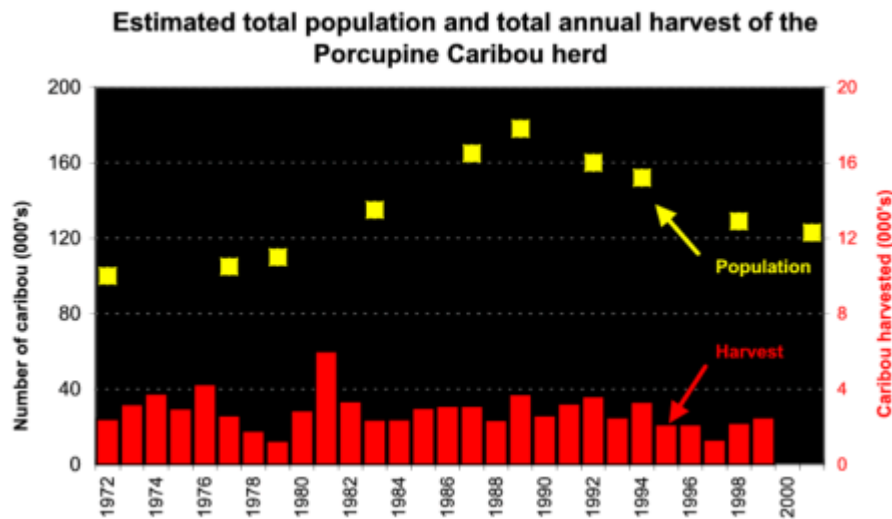
The preparation of a harvest management strategy is an undertaking that will take several years and require dedicated commitment on the part of those with an interest and stake in the management and use of the herd. This report identifies some approaches to developing such a strategy.

2. Background

2.1 *The Porcupine Caribou Herd Population*

During the 1980s, the herd grew approximately 4.5% per year, numbering 178,000 by 1989 or almost double its size in the early 70s. By 1998 it had declined to 129,000. In 2001 the herd was estimated at 123,000 caribou.

Over the past 30 years, the reported yearly harvest of the herd has ranged from 2,000 to 7,000 caribou with an annual average of about 2,900. This estimate includes all non-Aboriginal and most, but not all, Aboriginal harvesting.



Source: Population estimates are from the Porcupine Caribou Management Board and harvest data are from the Yukon Department of Environment, Fish and Wildlife Branch.

The human harvest of caribou depends on the accessibility of the herd to hunters during the harvesting season. At no time has the harvest exceeded 3% of the population, despite a human population increase of 20-30% in nearby communities over the last three decades

The Porcupine Caribou herd has not grown as quickly as other barren ground caribou herds, despite having a comparable birth rate. This suggests that the Porcupine herd experiences greater mortality than other barren ground caribou herds.

Apart from humans, the main predators on caribou are wolves. Since the local wolf population is relatively low, it does not have a large effect on caribou populations, taking between three and five percent of the herd each year. In total, about 16% of the adult cows die from natural causes each year. Limited body

condition studies and measurements do not show that Porcupine Caribou are stressed nutritionally.

2.2 The Porcupine Caribou Management Agreements

Two agreements – one national, the other international – exist to facilitate co-operative management of the herd across the various traditional, territorial, and international boundaries that divide the 249,000 square kilometres (96,100 square miles) of land it migrates across.

Porcupine Caribou Management Agreement

The Porcupine Caribou Management Agreement (PCMA) was signed in 1985. The objectives of the parties to the Agreement are cited below in full because they reference key considerations that should inform the development of a harvest management strategy for the herd. The parties agreed:

1. To co-operatively manage, as a herd, the Porcupine Caribou and its habitat within Canada so as to ensure the conservation of the Herd with a view to providing for the ongoing subsistence needs of native users;
2. To provide for the participation of native users in Porcupine Caribou Herd management;
3. To recognize and protect certain priority harvesting rights in the Porcupine Caribou Herd for native users, while acknowledging that other users may also share the harvest;
4. To acknowledge the rights of native users as set out in this Agreement; and
5. To improve communications between Governments, native users and others with regard to the management of the Porcupine Herd within Canada.

The PCMA established the Porcupine Caribou Management Board (PCMB) as an important instrument for achieving these objectives through actions that the PCMB determines to be necessary. Eight voting members are appointed by the parties to represent the governments of Canada, Northwest Territories, and Yukon, and the native user communities of Old Crow, Dawson, and Mayo in the Yukon, and Aklavik, Inuvik, Fort McPherson, Arctic Red River, Inuvik, and Tuktoyaktuk in the Northwest Territories.

Among its duties, the PCMB may make recommendations to the appropriate responsible Minister regarding a herd management plan. In the 2000-2003 Porcupine Caribou Herd Management Plan, the Board recommended the development of a harvest management plan or strategy. It is to include

information and recommendations on how to help the herd recover if it continues to decline.

International Porcupine Caribou Agreement

The 1987 International Porcupine Caribou Agreement between the governments of Canada and the United States established an international board to make recommendations that require international coordination for the conservation of caribou and habitat, including those that will ensure opportunities for customary and traditional uses of the Porcupine Caribou Herd by rural Alaska residents and by native users in Yukon and the Northwest Territories. Among its duties, the Board will “when advisable to conserve the Porcupine Caribou Herd, [make] recommendations on overall harvest and appropriate harvest limits for each of Canada and the United States of America taking into account the Board’s review of available data, patterns of customary and traditional use and other factors the Board deems appropriate.”

In 1993, the International Board outlined areas requiring coordinated action to achieve the objectives of the international agreement in the *Plan for the International Conservation of the Porcupine Caribou Herd*. With respect to harvesting, the plan identified the following actions:

- to prepare a report on methods used to collect harvest data;
- to recommend the Parties report annual harvests and data collection methods; and,
- to jointly prepare guidelines for when harvest limits will be considered.

2.3 PCMB Discussions on Harvest Management

In 2002, the PCMB participated in organizing a workshop on “Caribou Harvesting Strategies and Sustainability.” The purpose of the workshop was to explore what is known about the effects of harvesting on caribou populations and the various choices available for harvest management. A number of scenarios for caribou harvesting were explored with a view to testing various harvest strategies on a model of herd productivity and abundance.

An outcome of this workshop was acknowledgement by participants from government agencies, user communities, and user groups of the need to develop a harvest management strategy on a priority basis, while recognizing that research into herd productivity and predation, and the collection of harvest information remained important ongoing actions.

2.4 Scoping Report Approach

In preparing this report, several tasks were undertaken:

- The following agreements were reviewed:
 - the Porcupine Caribou Management Agreement (1985)
 - the International Porcupine Caribou Agreement (1987)
 - the Inuvialuit Final Agreement (1984)
 - the Gwich'in Comprehensive Land Claim Agreement (1992)
 - the Vuntut Gwitchin Final Agreement (1993)
 - the Nacho Nyak Dun Final Agreement (1993)
 - the Little Salmon Carmacks Final Agreement (1997)
 - the Trondek Hwech'in Final Agreement (1998)
- Several reports were reviewed:
 - Draft Background Information to Prepare Porcupine Caribou Harvest Plan
 - G. Kofinas, C. Nicholson, M. Berman, and P. McNeil. "Caribou Harvesting Strategies and Sustainability Workshop Proceedings, held in Inuvik, Northwest Territories, April 15-16, 2002." NSF Sustainability of Arctic Communities Project (Phase II). 2002.
- Discussions were conducted with the following persons:
 - Art Christiansen (Trondek Hwech'in First Nation / PCMB)
 - Carl Charlie (past PCMB member)
 - Robert Charlie (Gwich'in Renewable Resource Board / PCMB)
 - Peter Clarkson (Gwich'in Renewable Resource Board)
 - Dorothy Cooley (Fish and Wildlife Branch, Environment, YTG / PCMB)
 - Tim Devine (Resources, Wildlife and Economic Development, GNWT / PCMB)
 - Alan Fehr (Parks Canada Agency / PCMB)
 - William Josie (Vuntut Gwitchin First Nation)
 - Doug Larsen (Fish and Wildlife Branch, Environment, YTG / PCMB)
 - John Nagy (Resources, Wildlife and Economic Development, GNWT / PCMB)
 - Norman Snowshoe (Gwich'in Tribal Council / PCMB)
 - Joe Tetlichy (Porcupine Caribou Management Board)

The discussions took the form of open-ended interviews that focused on several questions:

- What are the key issues that a PCH harvest management strategy should address?
- What are some of the challenges in addressing these issues?

- What is required for user groups and user communities to participate in the development of a harvest management strategy?
- What is required for user groups, user communities, and PCMB members to support and recommend a harvest management strategy?

The discussions were not intended to be exhaustive, but to provide a representative sample of views and interests that should inform the development of a harvest management strategy. All of the comments were recorded without attribution to individuals or organizations.

3. Harvest Management Issues to be Addressed

The following issues represent a summary of concerns and ideas that were identified through discussions with a select cross-section of individuals with a management interest in the Porcupine Caribou Herd. Liberties have been taken to expand or clarify ideas to better convey their meaning and implications for harvest management planning.

3.1 Scope of a Harvest Management Strategy

There is a general recognition that a harvest management strategy for the PCH must ultimately address harvesting in both Canada and the United States (Alaska). However, both jurisdictions face significant challenges in establishing a harvest management strategy within their respective countries, let alone achieving a joint Canada – US harvest management strategy for the PCH.

A two-step approach that focuses first on strategies in each jurisdiction is the preferred approach. A harvest strategy for the Canadian range of the PCH could contribute in a significant way to the development of international harvest management strategies, should they be pursued in the future.

Harvest management in the Dempster Highway corridor has been identified as an area of special concern. There is, however, a strong desire for a Canadian harvest management strategy that focuses on the entire Canadian range of the PCH.

A harvest management strategy should be more than a “kill management” strategy and should include a broad range of considerations related to harvest management, such as harvest practices and hunter ethics. It should also include reference to other ecological factors and population management considerations beyond harvesting and harvest management, such as predator-prey dynamics, development impacts on habitat, and other factors potentially affecting herd productivity.

In short, a harvest management strategy should avoid any tendency to be too narrow. A strategy that focuses on harvest management should be situated in a broad context that considers the “big picture” with respect to the full range of the herd, the broad range of factors affecting conservation of the herd, and management strategies other than harvest management that may contribute to maintaining population abundance and meeting current and future harvester needs. It should also consider a broad and flexible range of management approaches and tools to accommodate differences between user communities, resident and Aboriginal hunters, and different management arrangements under different land claims agreements.

3.2 Harvesting Rights and Management

It is fundamental that a harvest strategy for the PCH address the area of harvesting rights and rights management and protection if the strategy is to be credible and effective. There are many points of fact, confusion and diverging opinions to be addressed.

The priority for protection of Aboriginal harvesting rights is second only to the goal of conservation of the Porcupine Caribou Herd. The relationship between the harvesting rights established in the Porcupine Caribou Management Agreement and those established in land claims agreements must be clearly recognized in a harvest management strategy for the PCH. Questions and opinions with respect to the paramountcy of the PCMA and land claims agreements respectively on certain points relating to harvesting rights and harvest rights management should be addressed.

All land claims agreements in the user communities of the PCH provide for restrictions on harvesting rights in certain defined circumstances associated with conservation and public safety. Restrictions must be justified according to conservation criteria specified in land claims agreements. These basic provisions of land claims agreements and the PCMA are poorly recognized and poorly understood by many Aboriginal hunters in user communities. The distinction between the restriction of a right to hunt and the denial of a right to hunt is a point of confusion that should be addressed. Harvest management may or may not require harvesting restrictions; and harvesting restrictions may include a range of options for regulating harvesting activity, such as limitations on harvest methods, limitations on time and place of harvesting, limitation on numbers, etc. The latter is an especially sensitive matter.

The perception exists that harvest management strategies for wildlife, either by design or by unintended consequence, may have the effect of turning Aboriginal hunters into “resident” hunters, if harvesting rights are not fully understood and fully protected within the provisions of land claims agreements and the PCMA.

As well, harvest quotas are often narrowly associated with arbitrary restrictions on Aboriginal harvesting rights. The legitimate use of quotas as a management tool needs to be understood better if the narrow negative association with “quotas” is to be overcome.

Land claim agreements also assign responsibility to various Aboriginal organizations, some regional and some local, for the protection and management of Aboriginal harvesting rights. These organizations all have an established interest in how Aboriginal harvesting rights will be affected by a harvest management strategy. The roles and responsibilities, as set out in their land claims agreements and according to their own governing structures, will require

careful attention by the PCMB if a harvest management strategy is to achieve their support and commitment to implementation.

These harvest management arrangements for Aboriginal hunters are complicated by the fact that in the Yukon self-government agreements have been negotiated granting certain law-making powers to First Nations governments, while in the NWT – within the range of the PCH – self-government arrangements have not been concluded. There, management responsibilities and arrangements are defined by the final land claims agreements alone, and not always in the same manner. These governance and institutional issues should be addressed in a harvest management strategy.

3.3 PCMB Mandate, Role, and Responsibilities

The PCMB's mandate, role, and responsibilities are established in the PCMA. However there is confusion among some users, user communities, and their organizations as to what these are and how they are being implemented. As a result, in some areas pertaining to the management of the PCH, the Board's authority and recommendations have been questioned or undermined by a lack of community support. In some cases, these problems are widespread and probably beyond the ability of individual PCMB members to address within the user communities that they represent.

Clearly the PCMB has a special coordinating and facilitating role with respect to the achievement of the PCMA's objectives generally (see page 5 above) and the development of harvest management strategies for the herd specifically.

With regard to harvest management, the Board may recommend:

- (i) annual allowable harvest;
- (ii) categories and priorities of harvest allocations;
- (iii) methods of harvest;
- (iv) areas of harvest;
- (v) means of access;
- (vi) seasons;
- (vii) age and sex of Porcupine Caribou to be harvested; and
- (viii) research study requirements related to the harvest.

However, if the Porcupine Caribou Herd is healthy and of sufficient numbers, the Board may recommend that the setting of an annual allowable harvest is not required. The Board's interest in pursuing a harvest management strategy at this time is not because one is immediately required. However, should the population continue to decline, an accepted harvest management strategy should be available for implementation if circumstances warrant in the future.

3.4 *The PCMB and Governmental and Organizational Relationships*

With regard to communications that foster coordinated management of the herd and its habitat, the Board has an important role and responsibility to play among the native users of the herd, between native users and governments, among governments, and with other non-native users. Since the PCMA was signed in 1985, this has emerged as a particularly challenging responsibility. It is a significant issue and management challenge to be addressed in the development of a harvest management strategy for the PCH.

The PCMA pre-dates a number of land claims agreements. As a result, its general references to them anticipated relationships between the PCMB and land claims organizations that at the time were not fully formed and largely conceptual. With the exception of the Inuvialuit Game Council, which was established prior to the PCMA and was a signatory to it, those First Nations organizations that were signatories on behalf of user communities in Yukon and Northwest Territories have largely been replaced by land-claims-based institutions established after the PCMA was signed.

The PCMA in defining “native user communities” indicated the following, with respect to how they should be represented:

The native users within these communities shall be represented by a Chief and Band Council, a Hunters and Trappers association or other appropriate native leadership body, including those bodies defined through the comprehensive land claims process.

In 2004, Yukon user communities referred to in the PCMA have self-governing institutions, and user communities in the Yukon and Northwest Territories have regional and local organizations whose respective land claim agreements assign them responsibilities for sub-allocating quotas between and within communities, and for governing the exercise of harvest rights.

The relationships between the PCMA, territorial and federal governments, self-governing Aboriginal communities, and land claims-based organizations in the areas of harvest management and rights are regarded by many with uncertainty. The PCMA itself suggests exercising caution in defining the relationship between harvest rights and harvest management established in the PCMA and the land claims agreements:

It is the intention of the parties to this Agreement that its provisions not be used to interpret or derogate from the provisions of any comprehensive land claims settlement and that the provisions of

any comprehensive land claims settlement not be used to interpret the provisions of this Agreement (PCMA, Section N (9.)).

Harvest management of this migratory population in an area that is jurisdictionally complex is both a challenge and a necessity for the conservation of the Porcupine Caribou Herd. Both the PCMA and land claims agreements recognize this fact through their reciprocal references. A harvest management strategy for the herd will need to place a high priority on addressing the roles and responsibilities in harvest management of the PCMB, governments, and the representative authorities of user communities established under land claims agreements. Support for a harvest management strategy and its effective implementation will depend on their collective understanding and agreement about their respective and mutual roles and responsibilities in this area.

3.5 User Conflicts

One of the challenges facing the development of a harvest management strategy for the Porcupine Caribou Herd is to employ management approaches that will overcome some of the current conflicts between different users and user communities.

Between some of the native user communities identified in the PCMA, there are different management priorities and approaches and divergent opinions on harvest management issues. The Canadian range of the herd is large, and the geographic circumstances, traditional use, harvest access, and harvest methods vary across communities. As well, individual native users have diverse opinions with respect to harvest management options and preferred alternatives.

The interests and entitlements of non-native users and how they are recognized and addressed are points of sensitivity for resident Yukon hunters. Notwithstanding the priority and preference that the PCMA attaches to native harvesting rights, there is need for the PCMB to ensure through a harvest management strategy that non-native hunting interests are fully consulted.

Some native user communities have expressed concern that the increasing harvest of Porcupine Caribou by native and non-native Yukoners outside of the traditional user communities and outside of the range of the herd may place growing pressure on the herd. In recent years, these hunters have been prepared to travel greater distances to improve their access to hunting opportunities. Native user communities are concerned that, if this trend continues, it will have an indirect negative effect on their own hunting opportunities and will not be addressed until the point where their own harvest may be restricted for conservation reasons.

3.6 *Dempster Corridor Harvest Management*

There are diverse opinions with respect to the effectiveness of the planning process and outcomes associated with the development of Dempster hunting regulations for Porcupine Caribou.

There is a view that, for the considerable effort that was required to develop the regulations, the outcomes have been disappointing and have created conflicts that didn't exist previously between different native user communities. The experience with the development of the Dempster regulations should inform the development of a PCH harvest strategy without being limited by it. Several areas will require special attention, notably:

- criteria used to establish decisions in support of a recommendation and future revisions (e.g. majority/minority, consensus decision-making)
- flexibility or uniformity in harvest management strategies
- treatment of “traditional” and “non-traditional” harvest practices
- treatment of harvest ethics
- level of user support for PCMB recommendations
- application and effectiveness of enforcement procedures

3.7 *Harvest Practices*

Preferred harvest practices and evolving and accepted harvest methods vary across user communities and are a source of differing perspectives in the user communities. Land claim agreements provide certain protections for beneficiaries in user communities with respect to harvest methods. Some reference certain ethical considerations, such as the efficient utilization of harvested wildlife as a management principle.

General concerns have been expressed with respect to harvest practices associated with Porcupine Caribou, notably:

- Maintenance of traditional methods
- Loss of traditional values and customs
- Organization of community harvesting activities throughout a season, and how the harvest is distributed over the land base
- Contemporary harvest practices

3.8 *Conservation Thresholds and Harvest Restrictions*

The criteria and principles used to determine conservation thresholds and annual total allowable harvests are areas of critical concern, in that – in the service of conservation – they are used to justify restrictions on native rights to harvest

Porcupine Caribou under the PCMA and land claims agreements. The PCMA outlines a role for the PCMB in this area. However, as discussed above, claims-based organizations also have an interest and a responsibility to protect and manage the harvest rights of beneficiaries, which will require a clear working relationship with the PCMB as conservation thresholds are being developed.

The current circumstance, where there are no conservation or public safety issues with regard to the harvest of Porcupine Caribou, provides the time and the opportunity for the development of harvest strategy to address the following:

- Education of users regarding the purpose and application of harvest restrictions through quotas and other measures established in land claim agreements
- Identification of criteria and principles for the determination of conservation thresholds that will provide justifiable and acceptable grounds for the introduction of harvest restrictions

3.9 Harvest Allocation

Allocation of the annual total allowable harvest, again, will require a careful understanding and agreement of the respective roles and responsibilities of the PCMB, governments, and organizations representing native user communities. The PCMA provides general direction in this regard. However, harvest management strategies will need to be more explicit about how the annual total allowable harvest will be established, reviewed, and revised.

The PCMB may make recommendations with respect to the categories and priorities of harvest allocation generally and the native user allocation specifically.

The PCMA requires that the PCMB take into account, among other things, the following criteria in determining the native user allocation:

- (i) food and clothing requirements of native users
- (ii) usage patterns and levels of harvest by the native users
- (iii) ability of the caribou and other wildlife populations to meet the subsistence requirements of the native users; and
- (iv) projections of changes in caribou populations.

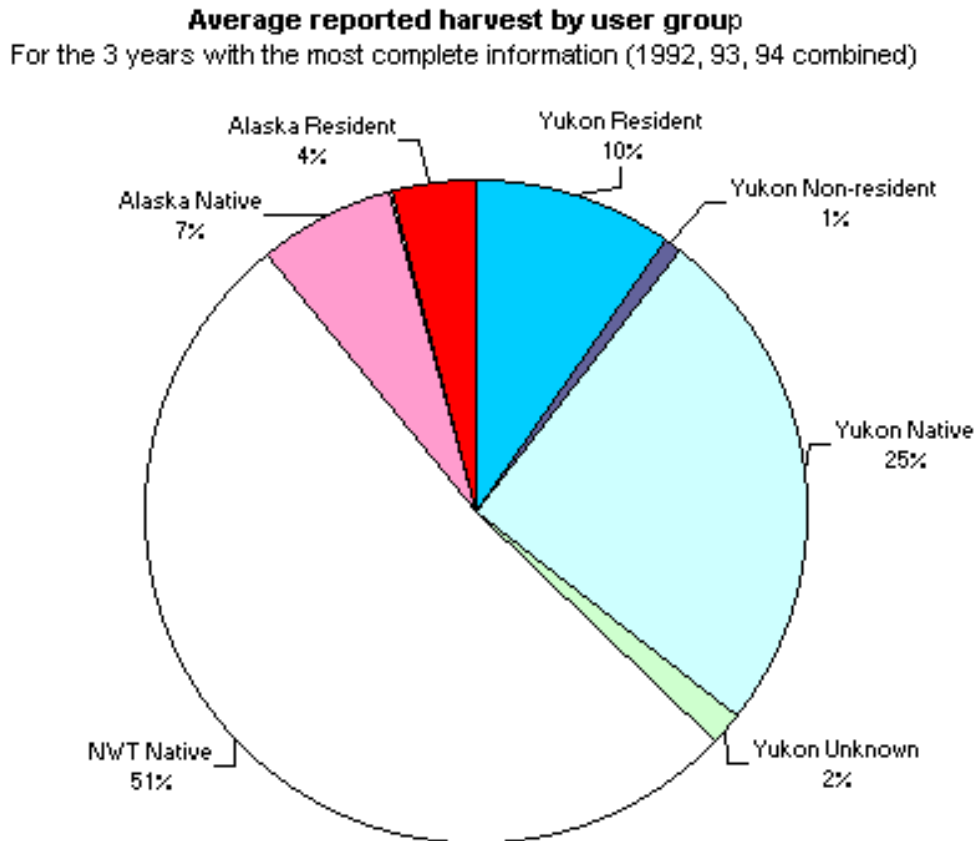
The land claims agreements that apply to the user communities generally provide criteria for determining the subsistence requirements of their beneficiaries, or what is referred to in some agreements as “Basic Needs Levels.” These claims-based criteria overlap those criteria (listed above) that the PCMB must consider for the native user allocation, but they also provide for the consideration of other unspecified criteria and factors. It is possible that these may vary between native user communities.

The representative organizations of native user communities have an interest in how community “need” for Porcupine Caribou will be determined and, equally important, how it will be met through sub-allocation of the harvest.

The PCMA requires that the native user communities sub-allocate the native user allocation. Since the PCMA was signed, new claims-based institutions representing the native user communities have been established – with the exception of the already-existing Inuvialuit Game Council. Their participation will be required in determining how the overall native user harvest, as recommended by the PCMB to government, will be allocated between the user communities.

Organizations representing native user communities also have a role with respect to determining harvest access to their community hunting area and harvest distribution both by their own community users and by users from another community that apply for access.

Other organizations have an interest in Porcupine Caribou harvest allocation as well, notably the Yukon Fish and Wildlife Board (as provided for in the PCMA) and the Yukon Fish and Game Association (with regard to the allocation to other users).



Source: Department of Environment, Yukon Government

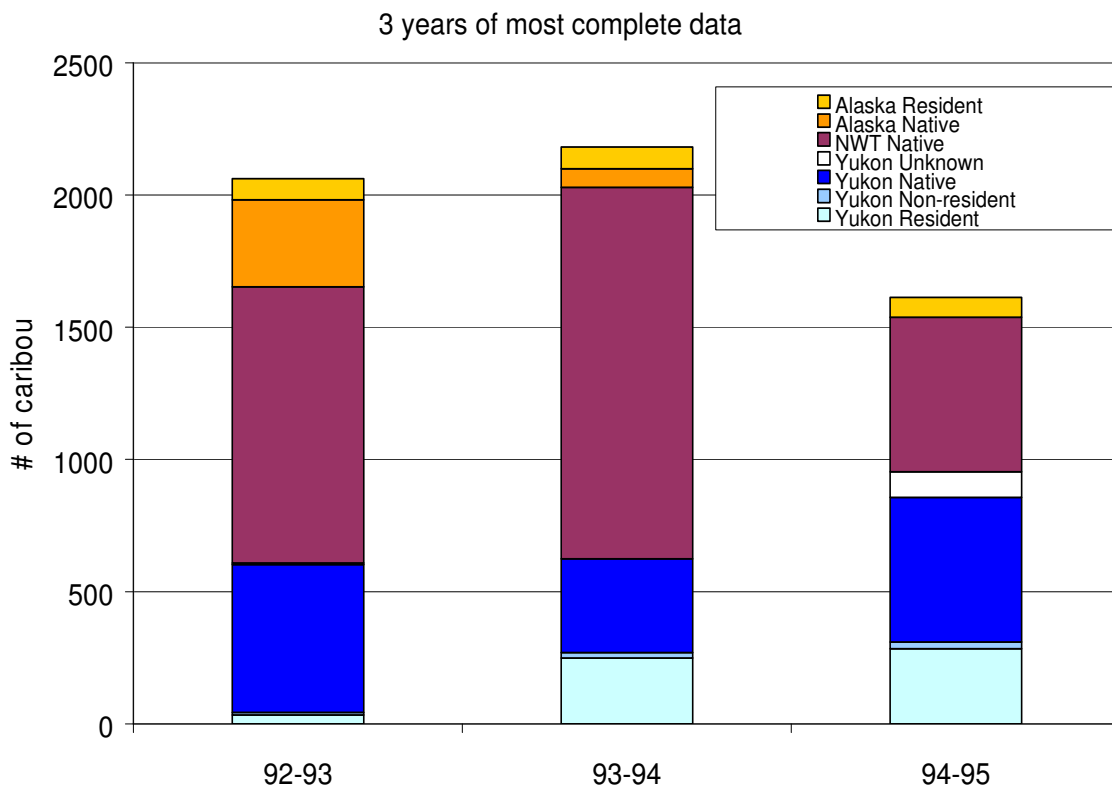
3.10 Harvest Information

The PCMA identifies harvest information as a significant contributing element to herd management generally, and assigns the PCMB a facilitating role in this regard.

Obtaining credible and reliable harvest information has been identified as significant challenge for a harvest management strategy. Generally, while Porcupine Caribou population estimates are viewed as good, concerns have been raised about the reliability of harvest estimates, notably as they relate to the following areas:

- Inconsistent quality and coverage across native user communities year-to-year, with significant data gaps in some communities in Canada
- Accuracy of resident Yukon harvest data
- Lack of available, accurate, and complete information about Alaskan harvest levels
- Uneven or poor participation by user groups in harvest reporting programs
- Variable and questionable harvest reporting methods

Porcupine Caribou harvest by user group (1992 – 95)



Source: Department of Environment, Yukon Government

Just as reliable population estimates are critical in determining conservation thresholds and the annual allowable harvest, so too does harvest information contribute to this determination, as well as to the determination of harvest allocations among user groups and native user communities. Indeed, quite apart from the PCMA, land claim agreements generally require some form of harvest reporting to ensure that harvest rights, subsistence requirements, and basic needs levels will be protected to the greatest extent possible whenever proposals for harvest restrictions for conservation purposes are made.

This requirement appears to be a poorly understood aspect of land claim agreements. Harvest reporting is viewed by many native harvesters as a means for undermining or compromising their harvest rights, not protecting them. In some communities, harvesters continue to be reluctant to participate in harvest surveys ten years after the signing of their land claim agreements. In others, harvester participation is declining due to general fatigue with ongoing reporting programs, confusion about program objectives, and lack of knowledge about program results.

These concerns associated with the purpose and treatment of harvest information will need to be addressed in a harvest management strategy, especially in circumstances that require some form of harvest restrictions, if the strategy is to be credible and acceptable to user groups.

3.11 Regulation and Enforcement

Implementation of harvest management strategies for the Porcupine Caribou Herd will, in some instances, likely require harvest regulations. The effectiveness of regulations will benefit from widespread native user community support for harvest management strategies, especially given the difficulties associated with enforcing regulations.

The development and enforcement of regulations is an area that will require careful attention and co-operation. Self-governing First Nations in the Yukon hold authority to pass laws regulating the activities of their harvesters. Hunters and Trappers Committees in Aklavik, Tuktoyaktuk, and Inuvik hold bylaw-making authority governing the exercise of Inuvialuit harvesting rights. Again, these roles and responsibilities underscore the need for governments, the PCMB, and representative organizations of native user communities to work closely together in the development and implementation of a harvest strategy.

3.12 Amendment of the PCMA

While there continues to be widespread support for the PCMA, some parties have suggested that it requires amendment to recognize and accommodate institutional changes that have occurred as a result of land claims agreements ratified and implemented subsequent to the PCMA's 1985 signing. Most notably these relate to requirements to provide for the direct participation of Aboriginal governments. The current practice involves the appointment of representatives of native user communities through the territorial governments or regional organizations, but the mandates of those governments and organizations have been altered by ratification of land claims and self-government agreements.

Some of these institutional issues have also been identified in the discussion above (3.2 – 3.4). They do not preclude the development of a harvest management strategy before they have been formally addressed through amendments to the PCMA. However, user community support for a harvest management strategy and the effective implementation of the strategy will require that these issues are also considered and addressed in its development. If they are addressed in a timely way, they may make a positive contribution towards discussions associated with the future amendment of the PCMA.

3.13 PCH Harvest Management Plan or Harvest Management Agreement

In discussions regarding the development of a harvest management strategy for the Porcupine Caribou Herd, a number of basic requirements were identified for an effective management approach:

- Comprehensive scope
- Flexibility to accommodate differing community approaches to achieving harvest management objectives
- Support and commitment of user groups to the development and implementation of a harvest management strategy
- Clear lines of responsibility and accountability for management actions
- Sound and effective institutional relationships between the PCMB, governments, and native user communities and their representative organizations

Comments focused on two instruments for implementing a harvest management strategy:

- (i) A harvest management plan
- (ii) A harvest management agreement

Harvest Management Plan

Wildlife management plans and related harvest management plans can be ambitious undertakings, especially in an area as jurisdictionally complex as the range of the Porcupine Caribou Herd. There are many ecological, social, cultural, jurisdictional, and legal factors to consider in a harvest management strategy for the herd. A management instrument like a harvest management plan provides sufficient scope and a suitable framework to address them. At the same time, management plans, often by virtue of their scope (in area, duration, and subject matter), are not easily revised to respond to changing and more immediate management circumstances.

Harvest Management Agreement

Harvest management agreements between governments, government and user groups, or between user groups provide an instrument for establishing clear and enforceable commitments between parties. Management agreements may focus on concise objectives and undertakings, and may be reviewed and amended readily to respond to changing harvest management circumstances. They also provide a useful vehicle for rendering these commitments into regulations and bylaws. A harvest management agreement may provide a useful instrument for native user communities of Porcupine Caribou to sub-allocate their share of the total allowable harvest, once the total allowable harvest and the total native user allocation has been determined by the PCMB. Community harvest sub-allocations could be reviewed and revised through this agreement or separate allocation agreements on a timely basis.

3.14 Planning Process Issues and Opportunities

It is generally recognized that the preparation of a harvest management strategy will require considerable effort, a clear and stable commitment by the PCMB, governments (territorial, federal, Aboriginal), and user groups and community organizations, and sufficient financial resources over several years. The most immediate and urgent challenge in preparing a harvest management strategy is securing the commitment of territorial, federal, and Aboriginal governments, the appropriate authorities representative of native user communities, and the PCMB to a planning process with clearly defined objectives, tasks, responsibilities, and outcomes. This is critical to ensuring that a multi-year planning process remains focused and certain. It is doubly important to define the parties to the harvest management planning process and related plan and/or agreement in the earliest stages of planning, in light of the current uncertainties and confusion around the relationships between the PCMB and user communities and their representative organizations on key issues related to harvest management.

Planning Protocol

A protocol or memorandum of understanding (MOU) that identifies these considerations and establishes these commitments could be an important instrument and necessary first step to providing some level of certainty and security for a challenging planning process. The PCMB would have an important and lead role to play in facilitating the development of a protocol, organizing the consultation associated with its contents, and ultimately securing the signatories to it.

Education and Communications

The planning process for a harvest management strategy should include an education and communications program that is aimed directly at all of the users of Porcupine Caribou. As the issues discussed above illustrate, there is considerable confusion, mistrust, and misperception in many quarters with respect to the purpose, need, and requirements of a Porcupine Caribou harvest management strategy. Community perceptions on many of these points are divided, and local user support for a coherent and understandable harvest management strategy will be critical.

In the absence of the support of user groups and the native user communities, the PCMB will be hard-pressed to recommend a harvest strategy – and governments to adopt one – which they can be confident will achieve effective implementation.

The planning process for a harvest management strategy could provide ample time and opportunity for a community-based education and communications program on selected issues associated with Porcupine Caribou harvest management.

4. Harvest Management Strategy – Optional Elements

In Section 3 above, strategic issues related to the development of a harvest management strategy for the Porcupine Caribou Herd are identified. Some are matters of process, others are matters of substance. Three planning instruments for addressing them are briefly identified at the end of the section:

- A harvest management planning protocol
- A harvest management plan
- A harvest management agreement

The PCMB could adopt any combination of these three instruments – and/or others. For the purposes of the discussion that follows, it is assumed that all three elements will be developed and implemented. Together, they represent a harvest management strategy for the Porcupine Caribou Herd. In sequence, they can be considered a series of “building blocks” for developing and implementing the strategy over several (3) years.

The purpose and content of each of these is outlined below.

4.1 PCH Harvest Management Planning Protocol

Purpose

- Establish the planning process for a harvest management strategy and its general objectives and deliverables
- Establish the roles and responsibilities of the PCMB, governments (territorial, federal, Aboriginal), representative authorities of native user communities in the planning process and harvest management
- Establish provisions for public participation and consultation in the planning process
- Establish commitments from the PCMB, governments, and representative authorities of native user communities to participate in the planning process

Content

- Statement of purpose (illustrative only)
 - Develop a harvest management strategy that:
 - (a) provides a management instrument to maintain productivity and abundance of the PCH

(b) meets the requirements of the PCMA and land claims and self-government agreements

- General objectives of harvest management planning
 - (a) conservation of Porcupine Caribou Herd
 - (b) protection of certain priority harvesting rights of native users and maintenance of harvest sharing with other users
- Identify the planning process and the partnerships required
- Identify the planning deliverables (generally): (e.g. 4.2 and 4.3 below)
- Identify the roles and responsibilities of the partners throughout the planning process
- Identify provisions for public education, participation, and consultation

Signatories

- PCMB
- Governments (federal, territorial, Aboriginal)
- Representative authorities of native user communities

4.2 PCH Harvest Management Plan

Purpose

- Establish the rationale for a harvest management plan and harvest management (user) agreement
- Establish an agreed-upon framework for managing the harvest of Porcupine Caribou by native users and other users, which meets the objectives and requirements of the PCMA and land claims and self-government agreements
- Establish harvest management goals and strategies for the herd under different population scenarios
- Establish the roles and responsibilities of the PCMB, governments, and representative authorities of native user communities

Content

- Statement of Purpose and Rationale
- Objectives (illustrative only)
 - Meet conservation requirements of the herd
 - Meet needs of native user communities
 - Share the harvest with other users
 - Enhance public understanding and knowledge of herd status and related harvest effects
 - Enhance participation of native user communities in harvest management
- Principles (illustrative only)
 - Environmental protection
 - Sustainable harvest
 - Rights and entitlements of PCMA and land claims agreements
 - No commercial harvest
 - Efficient use and no wastage
 - Harvest reporting
 - Etc.
- Ecological Context
 - Population information (abundance, range, productivity, health, etc)
 - Harvest information (who hunts, how much, by what methods, when, and where)
- Harvesting Rights
 - Entitlements under the PCMA
 - Native users and non-native users
 - Relationship between PCMA and land claims agreements
 - Limitations on harvesting rights
 - Laws of General Application applicable to resident and non-resident harvesters
- Management Roles and Responsibilities of Partners
 - Established roles and responsibilities under PCMA, land claims agreements, self-government agreements (illustrative only)
 - PCMB, governments (territorial, Aboriginal), and representative authorities of native use communities facilitate collection of harvest information
 - PCMB recommends annual allowable harvest
 - PCMB recommends total native allocation and non-native allocation from annual allowable harvest

- Aboriginal governments and/or representative authorities for native user communities sub-allocate native allocation
- Territorial ministers approve annual allowable harvest
- Territorial ministers determine sub-allocation of non-native harvest
- Territorial and Aboriginal governments establish appropriate regulations/bylaws
- Etc.
- Agreed-upon participation and commitments by partners
- Conservation Limits
 - Determination of annual allowable harvest:
 - Science-based and TK-based information
- Community Needs
 - Determination of community needs utilizing criteria that include the following (as per PCMA):
 - Food and clothing requirements of native users
 - Usage patterns and levels of harvest by native users
 - Ability of caribou and other wildlife populations to meet the subsistence requirements of native users
 - Projections of changes in caribou populations
- Community Harvest Strategies and Use
 - Regional and local strategies that address:
 - Methods of harvest
 - Areas of harvest (distribution)
 - Means of access
 - Seasons
 - Age and sex factors
 - Efficiency of use
 - Harvest ethics
 - Research requirements
- Harvest Allocation
 - Native user allocation
 - Native community use sub-allocation
 - Links to Harvest Management (User) Agreement
 - Non-native user allocation
 - Resident hunters
 - Non-resident hunters (outfitters and special guiding)
- Education, Information, and Communication
 - Ongoing education, information, and communications program on selected issues (illustrative only):

- Determination of conservation thresholds
 - Management circumstances that may trigger harvest quotas
 - Report results of annual community and user group harvest
 - Report results of population census, etc.
- Plan Implementation
 - Establish arrangements and commitments for plan implementation and review

Plan Recommendation

- Recommended by the PCMB to the appropriate governments (federal, territorial, and Aboriginal)

3. *PCH Harvest Management (User) Agreement*

Purpose

- Consistent with the PCH Harvest Management Plan, establish a harvest management agreement between native user communities and with the PCMB that:
 - Recognizes the objectives and principles of the PCH Harvest Management Plan
 - Establishes a means for sub-allocation of the native user allocation among native user communities
 - Establishes conservation and harvest commitments that can be enforced through regulations

Content

- Statement of Interests by native user communities in entering into a harvest management agreement
- Statement of recognition of PCH Harvest Management Plan
- Statement of Principles (from PCH Harvest Management Plan)
- Statement of Objectives (from PCH Harvest Management Plan)
- Statement of Definitions

- List of Commitments / Regulations pertaining to (illustrative only):
 - Conservation measures and protections (e.g. cow/calf, seasonal, etc.)
 - Harvest methods
 - No commercial use
 - Determination of annual allowable harvest by PCMB
 - User community allocation agreements (annual, biannual etc.)
 - Quota application and implementation
 - Other special provisions
 - Collection of harvest data and sharing of information

Signatories

- Aboriginal governments
- Appropriate representative authorities for native user communities
- PCMB
- Witnessed by: federal and territorial governments

5. Building the Strategy: Process Considerations

5.1 Key Considerations

For many users and native user communities of the Porcupine Caribou Herd, the process for building a harvest management strategy will have a significant affect on the acceptability of the end results: a harvest management plan and harvest agreement. There is a great deal of trust to be built between user groups, between user communities, between Aboriginal and territorial governments, and between the PCMB and representative authorities of native user communities, in order to establish the necessary partnerships to support a harvest management strategy and its effective implementation across the Canadian range of the PCH.

In this general area, the PCMB carries a mantle of responsibility by virtue of the duties assigned to it in the PCMA. The Board has an important role in facilitating both these relationships and native participation in harvest management. In the current climate of uncertainty, misconception, and distrust on many issues associated with harvest management of the PCH, this work will be time-consuming and will require the PCMB to build new relationships and rejuvenate old ones with native user communities, Aboriginal governments, organizations representing harvesters in native user communities, and other user groups representing resident and non-resident harvesters.

The process of building a harvest management strategy, importantly, should be a process of education and communication.

In short, the process of building a harvest management strategy will be time-consuming and expensive. It will require a special level of commitment and dedicated focus by the PCMB over several years, if substantial progress is to be made.

Finally, there is also a sense of urgency that should drive the planning process. Although productivity levels for the PCH have been comparable to other herds, trend lines indicate a declining population. Levels of wolf predation (3-5% of the PCH annually) and human hunting (2-3 % of the PCH annually) are not a significant component of this decline. In total, about 16% of the adult cows die from natural causes each year (Environment Canada). Suspected increasing “natural” mortality, uncertain effects of climate change on the herd, actual and potentially increasing development pressures within the Alaskan and Canadian range of the herd – these are all causes of growing concern about the future well-being of the herd and of the communities that depend on it for a substantial portion of their household livelihood. If the herd continues to decline, harvesters will experience increasing difficulty in meeting the needs of their communities. In the absence of a harvest management strategy that offers a range of harvest management options, conflicts between users, native user communities, and

governments will likely increase, leading to the worst of management outcomes: management through force of circumstance and by crisis. This is a scenario that all of those with a management interest in the herd want to avoid.

Although the 2004 population census of the herd may present a more optimistic picture, many indicators currently suggest that the window of opportunity for an approach to harvest management planning that can pursue a broad range of proactive management options is narrowing, perhaps rapidly. There are good grounds for planning a harvest management strategy as soon as possible.

A planning process for the development of a PCH harvest management strategy should include the following features and elements:

- A phased, multi-year approach that develops the discrete components of a harvest management strategy as a set of “building blocks”
- A community-based approach that emphasizes local participation and partnerships
- Regional gatherings of participating governments and organizations to back-stop a community-based approach by encouraging participation, reviewing initiatives and progress in communities, reviewing key management issues, and building management partnerships.
- An educational approach that seeks to inform all users, as well as governments and representative authorities of native user communities, about critical issues associated with herd management and harvesting rights
- An effective communications program that generates community and user group awareness of the harvest management planning process and how they can participate
- Establishment of new working relationships and clarification of existing ones between the PCMB, Aboriginal governments, representative authorities of native user communities, and organizations representing resident and non-resident harvesters
- Identified financial sources and dedicated financial resources to support a harvest management planning process facing significant challenges

5.2 Work Planning

For planning purposes, general tasks and activities can be organized over several phases and years, with a view to building community participation and

partnerships first, and subsequently compiling technical information from science-based, local, and traditional sources, and harvest management options.

Phase One – Building the Foundation

- Develop information and communications program explaining need and rationale for development of PCH harvest strategy
- Initial meetings with Aboriginal governments and representative authorities of native user community communities to discuss planning protocol.
- Initial meetings with user groups and representatives of resident and non-resident harvesters to introduce planning initiative
- Develop planning protocol for review by potential signatories
- Sign-off on planning protocol by PCMB, governments, and representative authorities of native user communities
- Review harvest rights and rights management for Porcupine Caribou under the PCMA, land claims agreements, and laws of General Application with native user communities, user groups, and local organizations representing harvesters
- Review harvest reporting information with native user communities, user groups, and local organizations representing harvesters, and continue or initiate activities to maintain or improve harvest reporting activities as required
- Identify criteria and information requirements with native user communities for determining community needs levels

Phase Two – Compiling Information and Harvest Management Options

- Continue and expand information and communications programs
- Continue harvest reporting activities and compile information for review by communities and user groups.
- Review population information and method for determining conservation thresholds and annual allowable harvests with native user communities, user groups, and local organizations representing harvesters
- Conduct community-specific meetings to review local harvest management issues, and harvest management strategies (including constraints,

opportunities, and preferred options) in the context of different population scenarios

- Initiate discussions with Aboriginal governments and representative authorities of native user communities on the content of a harvest management (user) agreement
- Conduct regional gatherings to discuss harvest allocation methods and criteria and to review work and progress

Phase Three – Preparing and Reviewing Draft Management Plan and Agreement

- Continue and expand information and communications programs
- Continue harvest reporting activities and compile information for review by communities and user groups
- Prepare drafting of harvest management plan and harvest management agreement
- Conduct community-specific meetings and regional gatherings to review and revise draft plan and agreement
- Continue (re)drafting of harvest management plan
- Convene community meetings and regional gatherings to finalize draft PCH harvest management plan with the participation of native user communities, user groups, and local organizations representing harvesters.
- Convene meetings of Aboriginal governments and representative authorities of native user communities to discuss, review, and approve PCH harvest management user agreement.

Phase Four – Implementation

- Continue and expand information and communications programs
- Continue annual community meetings and regional gatherings to review plan implementation