



**PORCUPINE
CARIBOU HERD**

**INTERIM MANAGEMENT PLAN
2003 – 2005**

Porcupine Caribou Management Board

PORCUPINE CARIBOU HERD MANAGEMENT PLAN

BACKGROUND SUMMARY

THE PLAN

As the original Porcupine Caribou Management Agreement was a pre-land claims agreement and land claims agreements have been signed with Yukon First Nations, plans are underway to have the signatories of the Porcupine Caribou Management Agreement meet to discuss amending the agreement to allow for full participation of all governments including First Nations governments. The results of these proposed amendments will have a great impact on the roles and responsibilities of the signatories to the amended agreement and subsequently to the management plan. Therefore, this management plan is an interim plan for the two year period 2003/2004 to 2004/2005. A full plan will be developed following the talks to amend the agreement. The annual work plans will be reviewed and updated each year and a report summarizing the results of work completed will be produced. In addition to printed copies, the management plan and annual reports will be posted on the PCMB website.

This plan is designed to have the First Nations and Inuvialuit work as equal partners with federal and territorial governments to help implement the plan. This plan is also designed to place greater emphasis on the use of traditional and local knowledge in the management of the herd.

THE CARIBOU

The Porcupine Caribou Herd is a population of barren-ground caribou also known as Grant's Caribou (*Rangifer tarandus granti*). In 1970, when the first survey was done, there were about 109,000 caribou in the herd. During the 1970s and 1980s the herd grew, reaching a peak of 178,000 animals in 1989. Between 1989 and 2001 the size of the herd declined to about 123,000 animals, at a rate of approximately three to four percent per year. Biologists think that bad winters and/or low early spring survival of calves in the early 1990s may have contributed to this decline, however the cause of the declines in the late nineties is not completely understood.

Biologists believe that there is no reason to be overly concerned about the herd at the present time as it is normal for caribou populations to fluctuate, however the continuing decline is notable and if the herd continues to decline then conservation measures may need to be undertaken to help protect the herd. Harvest levels have not been a concern in the past and there is no indication that the habitats used by the herd have deteriorated. Body condition studies indicate that the herd is healthy. Normally a census of the herd is carried out every three years in order to monitor the condition of the herd. A census was scheduled for July 2003; however, because of poor weather conditions the census could not be undertaken. Biologists will continue to look at all other indicators such as body condition, calf survival rate and the condition of the habitat.

THE PEOPLE

Gwich'in, Inuvialuit, Inupiat, Han and Northern Tutchone people from 17 communities in the Yukon, Northwest Territories, and northern Alaska harvest the caribou. The caribou are needed for the physical and cultural existence of the northern user communities. The herd is also important to resident hunters in the Yukon, Northwest Territories and Alaska.

In Canada the herd is co-managed under the Porcupine Caribou Management Agreement (1985). Canada and the United States of America co-manage the herd under the International Porcupine Caribou Agreement (1987).

CARIBOU AND PEOPLE

The greatest threat to the survival of the herd is the proposed development of oil and gas reserves in Arctic National Wildlife Refuge. Each year approximately 85 percent to 91 percent of the cows in the herd calve on the coastal plains in the refuge. Scientists estimate that the herd would decline by approximately 40 percent if this area were opened up for development. Work to get permanent protection for the herds calving grounds in the Arctic National Wildlife Refuge has increased dramatically.

The Dempster Highway crosses the spring and fall migration routes and the fall and winter range of the herd. People in the user communities and biologists with the government of NWT and Yukon have long recognised that increased use of the Dempster Highway by local people, hunters and tourists may be disrupting the normal fall migratory movements of caribou in the area of the highway. To help reduce the level of human activities along the highway during the fall migration of the herd, the Yukon government implemented new Dempster Highway hunting regulations in fall 1999. These regulations allowed for adequate snow depth before the use of snow machines is permitted and a 500-meter corridor either side of center safety corridor. These regulations also allowed for a one-week closure to caribou hunting to "let the leaders pass". The GNWT, in consultation with the user communities in the NWT, passed similar regulations for the use of snow machines and allowing the leaders to pass; however the 500-meter corridor is by voluntary compliance. These regulations were required to be reviewed after three years and this review was undertaken in 2001/2002 through public meetings, the formation of a Dempster Highway subcommittee and a First Nations Summit. As these are very complex issues, these meetings did not come to any consensus on what changes should be made to the regulations. The PCMB made several recommendations to the Yukon Minister of Environment; however these recommendations were varied. Discussions are ongoing and no changes will be made to the existing regulations until at least the fall of 2004.

The Dempster Highway has also given easy access to tourists who want to see large numbers of migrating animals. With the closure of the highway for one week during the fall, tourists will now have an opportunity to photograph and watch the caribou.

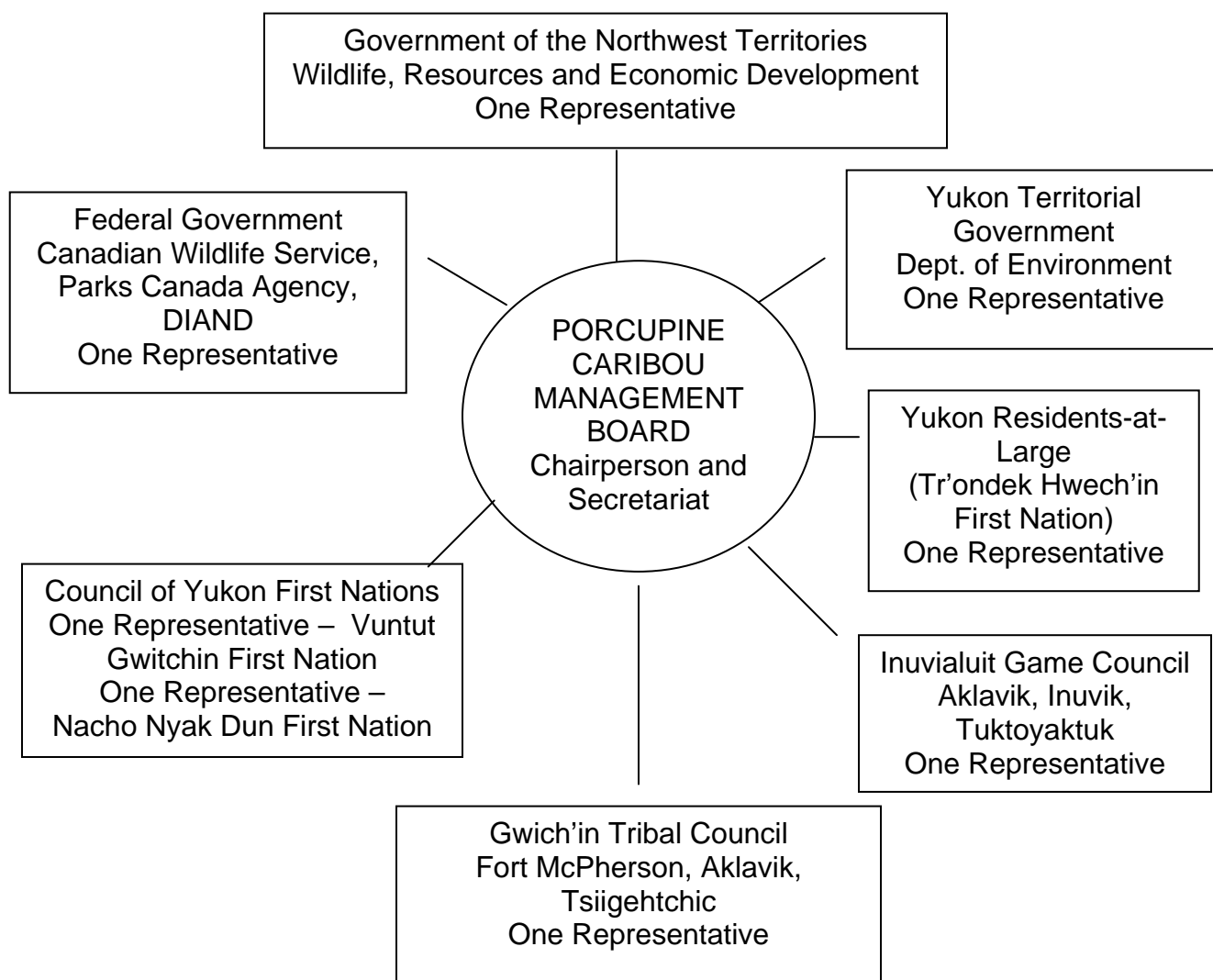
Some effects of interaction between people and caribou are more subtle. Climate change caused by environmental pollution is becoming more noticeable. The Arctic Borderlands Ecological Knowledge Society has started to gather both traditional and scientific data to track these changes.

Increased human activities within the range of the herd and their cumulative effects on the caribou and their habitats are of concern. While oil and gas exploration leasing and development in the Eagle Plains area near the Dempster Highway is of concern, development has been slow. Pipelines linking natural gas reserves in the Mackenzie Delta and at Prudhoe Bay have been proposed. Routes being considered cross the herds calving grounds on coastal plains of the Arctic National Wildlife Refuge in Alaska; the winter range of the herd along the Dempster Highway; and near the calving grounds of the herd in the Yukon and Alaska but offshore on the floor of the Beaufort Sea. In addition, a number of national and territorial parks have been established within the range of the herd that will draw more tourists to the northern Yukon and NWT. Both the Yukon and NWT governments promote tourism opportunities along the Dempster Highway.

Each of these proposed developments/activities alone or in combination with existing activities may affect the herd or its habitat. In order to have meaningful input when development proposals are reviewed, the Board needs to have a good working relationship with the Renewable Resource Councils, hunter and trapper committees, wildlife co-management boards, land use planning boards, strategic planning boards, and environmental impact screening and review committees/boards that operate within the range of the herd.

CANADIAN PORCUPINE CARIBOU MANAGEMENT AGREEMENT (Signed October 26, 1985)

**Agreement Signatories, lead agencies,
implementing organizations,
dedicated number of representatives,
and designated native user communities**



THE DESIGN

The Porcupine Caribou Herd Management Plan has the following sections:

Management Objectives

The objectives under which Porcupine Caribou and their habitat will be managed

Management Principles

The general principles of the plan

Current Status

A summary of the information that we now have to manage Porcupine Caribou and their habitat

Action Plan, June 2003 to May 2005

This section lists our concerns and the solutions and actions required during the period June 2000 to May 2003 to address those concerns

Goals for May 2005

Specific things that we want to accomplish during the period June 2003 to May 2005

Work Plans for the Porcupine Caribou Management Board (PCMB), Yukon Territorial Government (YTG), Government of the Northwest Territories (GNWT), Canadian Wildlife Service, Parks Canada Agency, Inuvialuit Game Council (IGC), Council of Yukon First Nations (CYFN), and Gwich'in Tribal Council (GTC).

Lists the actions required by the signatories to the Porcupine Caribou Agreement during the plan period to address the concerns listed in the Action Plans. The actions needing to be done each year and for each specific year are listed.

The information in the Action Plans and the Work Plans is organized under the following column headings:

- A. Physical Condition
- B. Herd Size
- C. Harvest
- D. Range Use
- E. Co-Management
- F. Culture and Education
- G. Tourism and Industry

The plan is a two-year interim plan from June 2003 to May 2005. Each year the participating partners will update the progress they have achieved on their work plans. The plan has been designed to be simple, readable and useable.

MANAGEMENT OBJECTIVES

- To cooperatively 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 the native users.
- To provide for participation of native users in Porcupine Caribou Herd management.
- 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.
- To acknowledge the rights of native users as set out in the Porcupine Caribou Management Agreement (1985).
- To improve communications between governments, native users, and others with regard to the management of the Porcupine Caribou Herd within Canada
- To incorporate traditional knowledge along with local knowledge and scientific knowledge as an integral part of management.

MANAGEMENT PRINCIPLES

- The herd and its habitat remain healthy and viable as defined by current scientific and traditional knowledge.
- Some habitats, such as the calving grounds, are essential for the long-term survival of the herd and must be protected.
- The health (body condition, levels of contaminants, parasites, diseases, etc.) of the herd is known and is communicated in a timely and effective way.
- Potential impacts of development activities on the herd and its habitat are known and communicated in a timely and effective way.
- The size and growth of the herd is affected by a number of factors including: harvest, predation, condition of the range, weather events, human disturbance, and possible competition from other species.
- Conservation, wise use, and ethical hunting of the herd is practiced and taught.
- Harvest information is collected.
- Research addresses management priorities, considers community concerns, and promotes community involvement.
- Research and management results are communicated in a timely and effective way.
- From time to time special management actions may be required to regulate the size or growth of the herd, or to promote recovery of the herd when its numbers are low.
- The role of the PCMB in management of the PCH and its habitat is known and recognized.
- The roles of the user communities, renewable resource councils, hunter and trapper committees, wildlife co-management boards established under land claims, and federal and territorial government agencies in management of the PCH and its habitats is known and recognized.
- Traditional knowledge should be used as a management tool.

CURRENT STATUS

PHYSICAL CONDITION

- Porcupine Caribou Herd continues to be in good physical condition. Body Condition monitoring, continuous from 1988 to 2002, showed only normal changes in condition depending on season and range use.
- The data set on the Porcupine Caribou Herd is the longest running data set on any barren ground caribou herd.
- Cesium, cadmium and mercury levels in PCH are not a health risk to users, although there continue to be questions in the communities as to whether the caribou are good to eat.
- Contaminant levels have not changed over the past ten years.
- Some typical caribou parasites have been reported. A Master's Degree student is undertaking research on parasites in the herd. This report will be available by December 2003.
- GNWT has produced a booklet on typical parasites.
- A serologic survey report of disease prevalence in Yukon caribou has been done, which included Porcupine Caribou.
- There is a possible increase in bovine viral diarrhea with a high of 40 percent of the herd being affected in 1989-90. This can cause loss of appetite and subsequent unhealthy condition.

HERD SIZE

- The drop in the PCH population from an estimated 160,000 in 1992 to 123,000 in 2001 shows a three percent decline. The decline may be partially attributable to hard winters and late springs in the early 1990's, however the continued decline in the late nineties is still under review.
- This population size is within the range of population sizes we are familiar with for this herd.
- The number of calves surviving from birth to one month old has been fluctuating but has remained generally high. Studies have shown that calf survival is related to the rate of plant green-up, weather, and predators on the calving grounds. The one-month survival rate has been monitored each year since 1979 using radio collared cow caribou.
- The number of calves surviving over the winter has been relatively stable. This has been monitored each year since 1991 during the March composition count.
- People in the communities are concerned that the decline of the herd may be a result of natural causes such as predators and weather.

HARVEST

- Collecting harvest data continues to be a challenge. There are thirteen different methods currently being used to collect harvest information and the accuracy of the resulting data varies greatly. In some areas harvest data is not being collected. The average reported harvest since 1990 is about 2,400 caribou each year, or about 1.5% of the herd.
- The collection of harvest data is a sensitive issue in some communities.
- It is generally agreed that over harvesting could not have played a part in the Porcupine Caribou Herd population decline since 1989; however, the effects of that harvest on the population are still not understood. A workshop sponsored by the National Science Foundation Sustainability of Arctic Communities Project on the effects of harvest was held in Inuvik in April 2002.
- The local harvest increases dramatically when part of the herd winters near the Dempster Highway or user communities.
- New hunting regulations were put in place in 1999 and reviewed in 2002/2003. Discussion continues on the long-term effects of these changes and what future changes should be implemented.
- The Hart River herd uses the southern portion of the winter range, which may lead to Hart River Caribou being harvested as Porcupine Caribou. This is a conservation issue for the Hart River herd.
- GNWT and YTG have 1-800 numbers that people can use to report hunting violations. Yukon: 1-800-661-0525, NWT: 1-800-661-0852.
- A process to determine quotas for Porcupine Caribou for outfitters who operate near the Dempster Highway is underway.
- A full description of the Porcupine Caribou Herd's use of its ranges (range ecology) was produced by the Canadian Wildlife Service in 1993. Also in 1993, the PCMB produced a report on the Sensitive Habitats of the Porcupine Caribou Herd on behalf of the International Porcupine Caribou Board. In that report, calving grounds and insect relief areas received the highest protection rating.
- In 2003, the Canadian Wildlife Service produced "The Summer Ecology of the Porcupine Caribou Herd" report, which outlined the importance of the summer range to the herd.
- Sensitive areas in Ivvavik National Park and Vuntut National Park are fully protected from development but not from human activity, tourism, aircraft over-flights, etc. Camps/facilities have actually been established in some parks. There is some evidence that the herd's use of winter ranges near the Dempster Highway may have increased as a result of the new hunting regulations that were implemented on the Dempster Highway in 1999, which allows the herd to cross the highway undisturbed for one week each fall.
- The calving grounds in the Arctic National Wildlife Refuge and some parts of the fall and winter range in the Richardson Mountains remain without permanent protection.
- The Northern Richardson Mountains within the Gwich'in Settlement Area are protected under the Gwich'in Land Use Plan (a part of the Northern Richardson Mountains is in the Inuvialuit Settlement Region.) The sensitivity of the Northern

Richardson Mountains in the Inuvialuit Settlement Region addressed in the Aklavik Community Conservation Plan.

- Other areas of the range have land use or management plans in place such as the Fishing Branch Protected Area, the Tombstone Territorial Park, and Hershel Island Territorial Park.
- Exploration activities on oil and gas leases may alter the pattern of caribou winter range use in the Eagle Plains area.
- Oil and gas exploration activities near Eagle Plains may lead to more development activities on the winter range in addition to natural events, which may also alter the patterns of the herd.
- The Yukon Protected Area Strategy supports/recommends protection of sensitive habitats for caribou.
- The muskoxen population on the north coast of Alaska, Yukon, and NWT has increased from 64 animals in 1969/70 to 700-800 in 2000.

CO-MANAGEMENT

- In Canada, the Porcupine Caribou Management Agreement has guided management of the Porcupine Caribou herd since 1986. Membership on the Board includes representatives from Gwich'in, Vuntut Gwitch'in, Northern Tutchone, Han, Inuvialuit and representatives from the Yukon, NWT and federal governments. The PCMB makes recommendations to appropriate ministers.
- The agreement says that the board is made up of eight voting members: one appointed by Canada, two appointed by the Yukon (one of these seats has been filled by the Tr'ondek Hwech'in First Nation), two appointed by CYI to represent the native users of Old Crow (Vuntut Gwitch'in), Dawson (Tr'ondek Hwech'in), and Mayo (Na'cho Nyak Dun), one appointed by GNWT, one appointed by the Dene/Metis (Gwich'in Tribal Council) to represent native users of Aklavik, Inuvik, Fort McPherson, and Tsiighetchic; and one appointed by IGC to represent the Inuvialuit native users of Aklavik, Inuvik, and Tuktoyaktuk.
- The Inuvialuit Final Agreement (the Western Arctic Claim) was signed in 1984. In the Inuvialuit Settlement Region, the Inuvialuit Game Council and community Hunters and Trappers Committees were established to represent the interests of the Inuvialuit in Aklavik, Inuvik, Sachs Harbour, Holman, Tuktoyaktuk and Paulatuk. These communities have by-law making power. Wildlife Management Advisory Councils were also set up for the NWT and Yukon North Slope.
- The Gwich'in Comprehensive Land Claim was signed in 1991. In the Gwich'in Settlement Area the Gwich'in Renewable Resource Board was created to represent the interests of the Gwich'in in Aklavik, Inuvik, Fort McPherson and Tsiigehtchic.
- The Yukon Umbrella Final Agreement was signed in 1993. The Vuntut Gwitch'in First Nation Final Agreement and the First Nation of Na'cho Nyak Dun Final Agreements were signed in 1995. The Tr'ondek Hwech'in First Nation Final Agreement was signed in 1998, completing land claims agreements in all Porcupine Caribou user communities.

- These groups are responsible for managing wildlife and habitat in their respective jurisdictions and forwarding recommendations to ministers.
- All agreements are subject to the 1987 Canada-US Agreement on Conservation of the Porcupine Caribou herd, and the 1985 Porcupine Caribou Management Agreement. Each First Nation agreement created the First Nation government who has law making powers for their citizens and on their Settlement Land. Within each First Nation Traditional Territory, Community Renewable Resource Councils make recommendations to governments.
- Following adoption of the International Guidelines for the conservation of the PCH by the IPCB in 1993, the PCMB agreed to adopt the Canadian management plan and renew it every three years.
- Compliance regulations related to Porcupine Caribou hunting have improved over the past few years and traditional knowledge is widely used in management considerations.
- The PCMB works in cooperation with WMAC (NWT) and WMAC (NS), Hunter and Trapper Committees, the Gwich'in Renewable Resource Board, Renewable Resource Councils, Inuvialuit Game Council, and the Yukon Fish and Wildlife Management Board. Biological fieldwork is well coordinated between the Alaska Department of Fish and Game, U.S. Fish and Wildlife Service, Government of Yukon, Canadian Wildlife Service, and the Government of the Northwest Territories. Contributing agencies and organizations in the past have been the Vuntut National Park, Ivvavik National Park, Gwich'in Renewable Resource Board, Yukon and NWT Renewable Resource Councils, Yukon First Nations, Hunter and Trapper Committees, and the University of Alaska Fairbanks.

CULTURE AND EDUCATION

- The four-part PCH School curriculum is available in every elementary and junior high school in the Yukon, and Mackenzie Delta. The program is also used in schools in western Canada and northeastern Alaska.
- Wooden caribou puzzles have been produced and have been provided for all user community schools.
- The Johnny Charlie Scholarship is available each year. Many of the past recipients of the scholarship have remained involved in wildlife work or have furthered their wildlife-related education.
- There is no special PCH-related program for high schools.
- The board obtained one-time funding to support hunting and cultural camps for 11 schools, First Nations, or groups within the user communities.
- Governments reported no incidents of antler sales from the PCH.
- Renewable Resources programs are offered by Yukon College in Whitehorse and Aurora College in Inuvik and Fort Smith.
- A poster or photo contest for all user community students has been started with the cooperation of the Gwich'in Renewable Resource Board.
- The PCMB has a website to provide general information on the herd and the work of the Board at www.pcmb.yk.ca.
- Much information on the herd is available at www.taiga.net, including maps showing the movements of satellite collared caribou.

TOURISM AND INDUSTRY

- The calving ground in the Arctic National Wildlife Refuge is not permanently protected. The current President of the United States is in favour of opening up ANWR for oil and gas exploration and development activities and has made opening the Refuge to drilling a cornerstone of his Energy bills. However, all efforts to date have been voted down in the Senate.
- Ranges of the PCH are included in the following:
 - Arctic National Wildlife Refuge,
 - Ivvavik National Park,
 - Vuntut National Park,
 - Fishing Branch Wilderness Preserve and Habitat Protected Area,
 - Tombstone Territorial Park, and
 - Herschel Island Territorial Park.
- In addition to the management plans for these tourist destinations, human activities within the range of the herd are controlled under:
 - Old Crow Flats Special Management Area management Plan,
 - Inuvialuit Special Conservation Area,
 - Federal Order-In-Council Withdrawal Area,
 - Dempster Highway Area Development Ordinance,
 - Yukon Territorial Land Use Regulations,
 - Environmental Impact Steering Committee,
 - Aklavik Community Conservation Plan, and
 - Environmental Impact Review Board
- Firth River tours are almost fully booked each season.
- PCMB provides PCH posters to govt. tourism outlets in the user communities.
- The PCMB provides aircraft harassment posters and stickers to airlines and tourism businesses.
- The Trans Canada Trail will follow the Dempster Highway.
- The 1999 Dempster Highway Caribou Hunting Regulations may result in increased wildlife viewing during the one-week closure.
- The Dempster Caribou Disturbance Study will study the cumulative effects of tourists/traffic/hunting activity on the migration patterns of the caribou.
- United States Congress is still debating whether to protect the calving grounds of the PCH or open the '1002' lands to development.
- The Withdrawal Order covering the Yukon north of the Porcupine River is still in effect but could be removed now that the Yukon Land Claims have been signed.
- Proposals to build a gas pipeline to link reserves in the Mackenzie Delta and Alaska are being considered. Three of the five proposed routes being considered affect the herd. One would cross the herd's calving grounds on the coastal plain of the Arctic National Wildlife Refuge in Alaska. Another is on the winter range of the herd along the Dempster Highway. The third is near the calving grounds of the herd in the Yukon and Alaska but offshore on the floor of the Beaufort Sea.

A. PHYSICAL CONDITION

No.	Issue	Goals	Actions/Tasks
1	<p>Communities want to know if the herd is healthy</p> <p>There is a need to summarize the findings of the body condition data collection and change if necessary</p>	<ul style="list-style-type: none"> • Monitor body condition 	<ul style="list-style-type: none"> • Collect body condition data using the method developed for all caribou herds • Increase sample size by getting more hunters involved in the study • Collect samples to determine body condition throughout the year Compare results to other herds • Keep communities informed on results of Body Condition studies • Summarize the findings of the body condition data collection and change if necessary
2	<p>We don't know if the level of brucellosis and bovine respiratory viruses is natural</p> <p>Past lab results for Bovine Viral Diarrhea (BVD) may be inaccurate</p>	<ul style="list-style-type: none"> • Keep monitoring the level of diseases in the PCH • Recheck laboratory results on BVD and find out if analyses were done correctly 	<ul style="list-style-type: none"> • Continue monitoring long term trends in diseases • Compare results to those collected by other research groups and government agencies • Recheck laboratory results on BVD and find out if analyses were done correctly • Undertake a study on BVD if the need is indicated and evaluate results
3	<p>Communities are still concerned about contaminants and parasites</p>	<ul style="list-style-type: none"> • Monitor contaminants in caribou • Help people understand caribou parasites and diseases 	<ul style="list-style-type: none"> • Collect and analyze caribou samples each year to determine levels of contaminants • Encourage people in the communities to report any diseases or parasites that they find in caribou that they harvest and to submit samples for analysis • Diagnose the samples of diseases or parasites submitted and report information back to the communities in a timely way • Distribute findings of Master's degree student's report on parasites in the herd in a user-friendly format

			<ul style="list-style-type: none"> • Continue to distribute the booklet “A Field Guide to Common Wildlife Diseases and Parasites in the Northwest Territories and Nunavut” in the user communities in the NWT • Keep communities, HTC’s, RRC’s and co-management boards informed about contaminant levels in caribou
--	--	--	--

GOALS

- To understand the general condition of the herd over the long term
- To be aware of the levels of disease and parasites
- To ensure that users, etc., are kept informed/involved in studies

B. HERD SIZE

No.	Issue	Goals	Actions/Tasks
1	The herd has been declining since 1989 and it is not known what role changes in productivity, recruitment, harvest, predation, range conditions, weather events, climate, human disturbance, and competition with other species have played in this decline	<ul style="list-style-type: none"> • Keep monitoring herd size • Find out how the size and growth of the herd is affected by changes in productivity, recruitment, harvest, predation, and condition of range, weather events, climate change, human disturbance, and possible competition with other species 	<ul style="list-style-type: none"> • Maintain collars on 60 to 100 caribou each year to locate the herd for the counts, including some satellite collars • Inform communities about the results of caribou counts • Determine productivity and recruitment each year • Get current information on harvest, including the sex and age of the caribou harvested (See Harvest) • Continue to analyze climate information to find out how the climate has changed and assess how these changes are affecting the herd and its habitat • Encourage the International PCB to do studies on how climate change is affecting the herd • Support the work of the National Science Foundation and Arctic Borderlands Ecological Knowledge Society on climate change • Monitor weather events such as fall storms and the timing of spring thaw and relate these to herd size • Get information on the condition of other seasonal ranges, and find out how caribou are affected • Compare the results with other herds to see if the PCH is different
2	People need to know what is happening with the herd size and what is being done.	Provide communities with information on how the census is done and why biologists believe the herd is declining	<ul style="list-style-type: none"> • Involve members of the communities, RRC's, and HTC's in new surveys done on the herd • Produce and distribute a flyer that describes the methods used to count caribou

	Development activities on sensitive seasonal ranges may have a greater effect on a herd that is in decline than on one that is stable or increasing	Predict the cumulative effects of different levels of development activity on the sensitive seasonal ranges of the PCH using information collected to date on the herd and from other herds	<ul style="list-style-type: none"> Do modeling to predict the cumulative effects of different levels of development activity on the sensitive seasonal ranges of the PCH using information collected to date on the herd and from other herds
--	---	---	--

GOALS

- To know whether the herd is increasing, remains stable, or is declining
- To know what factors are affecting population growth
- To be able to predict how climate change may affect the herd
- To be able to predict how different levels of development and human activity will affect the herd
- To better understand cumulative impacts of events on the herd (weather, human activity, predation, new species, snow cover, etc.)

C. HARVEST

No.	Issues	Goals	Actions/Tasks
1	We do not have consistent, complete, reliable harvest data from Canada or Alaska for the herd. Inaccurate harvest estimates make it hard to manage the harvest for the good of the herd	<ul style="list-style-type: none"> Collect good harvest data. 	<ul style="list-style-type: none"> Ask all hunters to report their harvest
2	There is no harvest management strategy	<ul style="list-style-type: none"> Prepare a harvest management strategy. 	<ul style="list-style-type: none"> Prepare a harvest management strategy that includes information and recommendations on how to help the herd recover if it continues to decline (quotas, predator management, etc.)
3	Even though it is illegal to sell Porcupine Caribou meat or antlers and to waste caribou, some infractions still happen	<ul style="list-style-type: none"> Watch for commercial sales of Porcupine Caribou (meat, antlers) and wastage of caribou 	<ul style="list-style-type: none"> Encourage people to watch for commercial sale of Porcupine Caribou and wastage of caribou and to report it to the local Renewable Resources Officer or Call 1-800-661- 0852 Wildlife Watch in the NWT or 1-800-661-0525 TIP in the Yukon
4	Some Hart River caribou are being taken as Porcupine Caribou. If this harvest is a threat to the health of the Hart River herd, hunting regulations may be changed which would affect hunting of the PCH	<ul style="list-style-type: none"> Find out how many Hart River and Porcupine Caribou are taken in the area where the ranges of the two herds overlap 	<ul style="list-style-type: none"> Ask hunters to submit samples from Caribou they harvest in the area where the ranges of the two herds overlap so that DNA analyses can be done to find out how many were Porcupine and Hart River Caribou
5	A list of the people eligible to harvest the Porcupine Caribou herd has not been compiled	<ul style="list-style-type: none"> Produce a list of aboriginal people eligible to harvest Porcupine caribou 	<ul style="list-style-type: none"> Request list of eligible hunters from First Nation communities within the range

6	<p>We need to make sure the Dempster regulations are accomplishing what they were set out to do. We continue to need information on how accessible caribou will be when the area is open for hunting after the one-week closure and whether or not hunters are accepting and complying with the regulations</p> <p>Determine the level of hunter acceptance and compliance with the regulations</p>	<ul style="list-style-type: none"> • Find out how accessible caribou are to harvesters after the hunting season is re-opened after the one-week closure • Evaluate and make changes to the Dempster regulations, if necessary 	<ul style="list-style-type: none"> • Determine where the caribou are before, during and after the one-week closure • Monitor activities along the Dempster Highway during the hunting season to find out if hunters have accepted and are in compliance with the regulations • Determine how many cows are harvested by resident hunters and determine if this is contributing significantly to the decline
---	---	---	--

GOALS

- To ensure that the harvest is known and is managed so that it is sustainable
- To ensure that harvesting activities along the Dempster Highway do not interrupt the normal migration of caribou
- To ensure that the Dempster Highway regulations do not cause unnecessary hardships for harvesters
- To support traditional knowledge

D. RANGE USE

No.	Issue	Goals	Actions/Tasks
1	The calving grounds are not fully protected	<ul style="list-style-type: none"> • Get full protection for the calving grounds 	<ul style="list-style-type: none"> • Continue to work on the Canadian/American strategy to protect the calving grounds of the herd
2	Oil and gas exploration and development activities may prevent the herd from using portions of its migration and winter ranges or may damage the winter range	<ul style="list-style-type: none"> • Plan oil and gas exploration and development activities so that they do not prevent caribou from using their migration and winter range or damage the winter range 	<ul style="list-style-type: none"> • Provide people involved in oil and gas exploration and development with information on the migration and winter ranges of the herd and when the herd uses them • Encourage wise management of all areas of the range
3	Muskoxen may be negatively affecting the range of the herd	<ul style="list-style-type: none"> • Support the development and implementation of the muskoxen management plan 	<ul style="list-style-type: none"> • Keep track of muskoxen management plan • Monitor the implementation of the muskoxen management plan

GOALS

- To obtain full protection for the calving grounds and ensure that human activities on other seasonal ranges do not negatively impact those ranges or caribou
- To understand how natural events may be affecting the seasonal ranges of the herd
- To understand the effects, if any, that muskoxen have on the seasonal ranges of caribou

E. CO-MANAGEMENT

No.	Issue	Goals	Actions/Tasks
1	Communities need to be more involved in the management of PCH	<ul style="list-style-type: none"> • Maintain support of Canadian and International Porcupine caribou boards so they can continue with co-management of the herd 	<ul style="list-style-type: none"> • Continue to solicit community members opinions on PCH issues through the “Community Caribou Update” • Ask the user community residents for their opinions on PCH issues • Continue to implement the communications plan
2	The use of traditional knowledge needs to be continued	<ul style="list-style-type: none"> • Use traditional knowledge whenever applicable / practical 	<ul style="list-style-type: none"> • Encourage people from the user communities to attend PCMB meetings and provide their traditional knowledge
3	The working roles of the PCMB and the IPCB need to be strengthened	<ul style="list-style-type: none"> • Increase communication among members and communities 	<ul style="list-style-type: none"> • Review, revise and report on Canadian Management Plans • Have members report regularly to sponsoring agencies and/or user communities
4	There needs to be increased cooperation between the PCMB and the First Nations/Inuvialuit governments and other co-management boards	<ul style="list-style-type: none"> • Improve working relationships and cooperation between all groups 	<ul style="list-style-type: none"> • Maintain yearly visits to the communities by PCMB Chair, hosted by the board member in that community • Encourage the participation of the First Nations, IGC in PCMB meetings • Ask people in the user communities for their opinions on PCH issues

5	Communities are not informed adequately of the results of studies done on the herd	<ul style="list-style-type: none"> Continue to use various methods to explain scientific methods and data 	<ul style="list-style-type: none"> Provide support to researchers and management biologists so that they have the time, money, and manpower to do this Use the internet, print media and community visits to explain data Find ways to incorporate traditional knowledge so that communities value the results because they have had input
6	<p>The PCMA is a pre-land claims agreement. Now that all land claims within the range of the herd are finalized, there is a need to amend the agreement to recognize all governments</p> <p>Ensure that traditional knowledge plays a prominent role under the restructured agreement</p>	<ul style="list-style-type: none"> Signatories of the PCMA need to meet to discuss necessary amendments to the agreement Traditional knowledge will be incorporated into the revised agreement 	<ul style="list-style-type: none"> Encourage signatories to meet Encourage signatories to incorporate traditional knowledge into the agreement

GOALS

- To have the user communities and local governments be an integral part of the PCH management
- To increase communication with the users of the herd
- To ensure that the PCMB and the IPCB continue to operate
- To ensure that traditional knowledge is used in decision-making
- To have the communities understand and support the role of co-management groups such as the PCMB
- To review and amend the PCMA

F. CULTURE AND EDUCATION

No.	Issue	Goals	Actions/Tasks
1	There are few non-technical reports on the biology or co-management of the PCH	<ul style="list-style-type: none"> Produce non-technical reports on the biology and co-management of the PCH 	<ul style="list-style-type: none"> Produce and distribute an annual report Continue to discuss biology and co-management in newspaper column Continue to solicit community members opinions on PCH issues through the "Community Caribou Update" Ensure that schools are using the PCH schools program
2	<p>Traditional knowledge on the PCH is not readily available</p> <p>There is no method of sharing and recording traditional knowledge or local knowledge of caribou</p>	<ul style="list-style-type: none"> Find ways to make traditional knowledge on the PCH more readily available Explore ways of beginning a shared recorded traditional and local knowledge database on caribou 	<ul style="list-style-type: none"> Send representatives to Traditional Knowledge workshops when they are held Develop form for reporting of traditional and local knowledge Encourage users to report Traditional and local knowledge to PCMB. These reports will be forwarded to the Arctic Ecological Knowledge Cooperative
3	The Johnny Charlie scholarship (Yukon and GRRB) do not have permanent funding	<ul style="list-style-type: none"> Obtain permanent funding for the Johnny Charlie Scholarship 	<ul style="list-style-type: none"> Solicit various funding agencies
4	Not enough people from the communities are employed by government wildlife research, management, and enforcement agencies	<ul style="list-style-type: none"> Hire more people from the communities to work for government wildlife research, management, and enforcement agencies 	<ul style="list-style-type: none"> Hire people from the communities who are qualified for jobs in wildlife research, management, and enforcement

GOALS

- To produce non-technical information on the herd for the communities and general public use
- To support traditional knowledge
- To maintain the Johnny Charlie Scholarship
- To promote good hunting practices and support hunting regulations on the Dempster Highway

G. TOURISM AND INDUSTRY

No.	Issue	Goals	Actions/Tasks
1	<p>There are concerns that the increase in tourist activity, local resident traffic and activities may be affecting the herd by preventing it from accessing portions of the range</p>	<ul style="list-style-type: none"> • Work to obtain protection for the '1002' area • Participate in any management plans that involve the PCH 	<ul style="list-style-type: none"> • See Range Use
2	<p>Activities on oil and gas leases on the winter range may disrupt the migration of the herd or prevent the herd from using portions of the winter range</p> <p>Winter and all-weather roads built to service well sites and other infrastructures could make it easier for harvesters to get access to the herd</p>	<ul style="list-style-type: none"> • Participate in the review processes for any new oil and gas developments • Provide information to industry 	<ul style="list-style-type: none"> • Review all applications for leases in range of herd • Participate in any management plans that involve the PCH • Do presentations to industry representatives if required and provide information on PCH
3	<p>The effects of traffic, hunters, and wildlife viewers is not well understood</p>	<ul style="list-style-type: none"> • Participate in the findings of the YTG disturbance study and communicate findings to the public 	<ul style="list-style-type: none"> • Summarize the YTG Dempster disturbance study and distribute to the public

4	Some visitors, tour operators, and aircraft charter companies do not show respect for the caribou	<ul style="list-style-type: none"> • Provide PCH information on the effects of harassment / disturbance on caribou and other wildlife to tourists, tour operators, and aircraft charter companies 	<ul style="list-style-type: none"> • Distribute posters, and other relevant information to tourist outlets • Encourage reporting of people who harass caribou • Continue to put caribou harassment posters up in prominent places where they can be seen by tourists, tour operators, and aircraft charter companies
5	There are still some areas that need protection. New protected areas still do not provide complete protection for wintering areas	<ul style="list-style-type: none"> • Ensure caribou and their habitats (Insect relief areas and winter range) are protected to prevent disturbance of caribou or damage to habitat. Ensure caribou and their habitat are fully protected if / when the Withdrawal area is lifted 	<ul style="list-style-type: none"> • Keep contributing to protected area processes • Keep track of the Withdrawal area

GOALS

- To obtain protection for the sensitive ranges of the herd
- To understand the cumulative impacts that tourism, development along with other variables may have on the herd
- To help the public understand the importance of the herd and its range

A. PHYSICAL CONDITION		Lead	Support
Action Each Year	<ul style="list-style-type: none"> Collect body condition data using the method developed for all caribou herds Increase sample size by getting more hunters involved in the study Collect samples to determine body condition throughout the year Compare results to other herds Keep communities, HTC, RRCS, and co-management boards informed on results of Body Condition studies Summarize the findings of the Body Condition data collected and change if necessary 	YTG, GNWT YTG, GNWT YTG, GNWT CWS YTG, GNWT YTG, GNWT	HTC, RRCS HTC, RRCS HTC, RRCS YTG, GNWT PCMB RRCS, HTC
	<ul style="list-style-type: none"> Continue monitoring long term trends in diseases Co Compare results to those collected by other research groups and government agencies 	YTG YTG	GNWT Communities
	<ul style="list-style-type: none"> Collect and analyze caribou samples each year to determine levels of contaminants Encourage people in the communities to report any diseases or parasites that they find in caribou that they harvest and to submit samples for analysis Diagnose the samples of diseases or parasites submitted and report information back to the communities in a timely way Continue to distribute the booklet “A Field Guide to Common Wildlife Diseases and Parasites in the Northwest Territories and Nunavut” in the user communities in the NWT Keep communities, HTC, RRCS, and co-management boards informed about contaminant levels in caribou 	YTG, GNWT YTG, GNWT YTG GNWT GNWT PCMB	PCMB PCMB YTG
2003-04	<ul style="list-style-type: none"> Recheck laboratory results on BVD and find out if analyses were done correctly 	YTG	
	<ul style="list-style-type: none"> Produce and distribute booklet that describes parasites and diseases of caribou. 	YTG	PCMB

2004-05	<ul style="list-style-type: none"> • Present a summary of the Body Condition study 	YTG	
	<ul style="list-style-type: none"> • Undertake a study on BVD if the need is indicated and evaluate results 	YTG, GNWT	
	<ul style="list-style-type: none"> • Distribute Masters Student's parasite research findings in a user- friendly manner 	PCMB, YTG,	

2003-04	<ul style="list-style-type: none"> • Determine herd size every 2 to 3 years • Get information on the condition of other seasonal ranges, and find out how caribou are affected • CWS working with USGS to analyze how late summer and fall ranges have changed in recent years • Compare the results with other herds to see if the PCH is different • CWS developing a database of North America herds to be used to compare herds • CWS produced a workshop proceeding on comparison of calving grounds • Encourage the International PCB to do studies on how climate change is affecting the herd. • Encourage IPC Technical Committee to consider climate change in their studies 	Alaska CWS	
	<ul style="list-style-type: none"> • Produce and distribute a flyer that describes the methods used to count caribou 	CWS	PCMB
2004-05	<ul style="list-style-type: none"> • Involve members of the communities, RRCs, and HTC's in new surveys done on the herd 	YTG, GNWT	Alaska
	<ul style="list-style-type: none"> • Do modeling to predict the cumulative effects of different levels of development activity on the sensitive seasonal ranges of the PCH using information collected to date on the herd and from other herds • CWS in partnership with NSF project is currently working on this project – more to report in the next annual review 	CWS	YTG, GNWT

C. HARVEST		Lead	Support
Actions Each Year	<ul style="list-style-type: none"> • Ask all hunters to report their harvest • Collect harvest data • Encourage people to watch for commercial sale of Porcupine caribou and wastage of caribou and to report it to the local Renewable Resources Officer or Call 1-800-661- 0852 Wildlife Watch in the NWT or 1-800-661-0525 TIP in the Yukon • Find out where the caribou are before, during and after the one-week closure • Monitor activities along the Dempster Highway during the hunting season to find out if hunters have accepted and are in compliance with the regulations • Monitor hunting activities along the Yukon-Alaska border • Ivvavik NP staff conduct periodic targeted patrols along the western park boundary during key hunting periods. Vuntut NP staff respond to infractions as notified 	FN's, IGC ALL PCMB ALL YTG YTG YTG, PCA	ALL YTG, GNWT GNWT GNWT
2003-04	<ul style="list-style-type: none"> • Prepare a harvest management strategy that includes information and recommendations on how to help the herd recover if it continues to decline (quotas, predator management, etc) 	YTG, GNWT, PCMB	
	<ul style="list-style-type: none"> • Ask hunters to submit samples from caribou they harvest in the area where the ranges of the two herds overlap so that DNA analyses can be done to find out how many were Porcupine and Hart River Caribou 	YTG	RRCs, HTC's
	<ul style="list-style-type: none"> • Compile a list of the people eligible to harvest the Porcupine caribou herd 	PCMB	
	<ul style="list-style-type: none"> • Find out how many cows are harvested by resident hunters and determine if this is contributing significantly to the decline • Evaluate the regulations 	YTG PCMB	GNWT YTG, GNWT
2004-05	<ul style="list-style-type: none"> • Implement harvest management strategy 	ALL	
	<ul style="list-style-type: none"> • Make changes to Dempster regulations if necessary 	PCMB	

D. RANGE USE		Lead	Support
Actions Each Year	<ul style="list-style-type: none"> Continue to work on the Canadian/American strategy to protect the calving grounds of the herd The Canadian Wildlife Service in cooperation with Porcupine Caribou Management Board produced report on "Summer Ecology of the Porcupine Caribou Herd" for distribution 	PCMB	ALL
	<ul style="list-style-type: none"> Provide people involved in oil and gas exploration and development with information on the migration and winter ranges of the herd and when the herd uses them Encourage wise management of all areas of the range 	YTG, GNWT, IGC, GTC ALL	PCMB
2003-04	<ul style="list-style-type: none"> Keep track of muskoxen management plan 	PCMB	YTG
2004-05	<ul style="list-style-type: none"> Monitor the implementation of the muskoxen management plan 	PCMB	

E. CO-MANAGEMENT		Lead	Support
Actions Each Year	<ul style="list-style-type: none"> Continue to solicit user community members' opinions on PCH through the "Community Caribou Update" Ask People in the user communities for their opinions on PCH issues Continue to implement Communication Plan 	PCMB PCMB PCMB	RRCs, HTC RRCs, HTC ALL
	<ul style="list-style-type: none"> Encourage people from the user committees to attend PCMB meetings and provide their traditional knowledge 	PCMB	ALL
	<ul style="list-style-type: none"> Review, revise and report on Canadian Management Plans Have members report regularly to sponsoring agencies and/or communities 	PCMB PCMB	ALL ALL
	<ul style="list-style-type: none"> Maintain yearly visits to the communities by PCMB Chair, accompanied by the community member Encourage the participation of First Nations, IGC in PCMB meetings Ask people in the user communities for their opinions on PCH issues 	PCMB PCMB PCMB	RRCs, HTC RRC's, HTC
	<ul style="list-style-type: none"> Provide support to researchers and management biologists to that they have the time, money, and manpower to inform communities of studies done on the herd Use the internet, print media and community visits to explain data Find ways to incorporate traditional knowledge so that communities value the results because they have had input 	YTG, GNWT, CAN PCMB, YTG, GNWT, CAN PCMB, YTG, GNWT, CAN	RRCs, HTC GTC, CYFN, IGC, RRCs, HTC
2003-2004	<ul style="list-style-type: none"> Report on 2003/2004 plan by May, 2004 	ALL	
	<ul style="list-style-type: none"> Prepare and send draft of PCH management plan to sponsoring groups Review and comment on PCH management plan 	PCMB PCMB, YTG, GNWT, CAN, GTC, CYFN, IGC	RRCs, HTC

	<ul style="list-style-type: none"> • Work on having PCMA signatories review the PCMA • Encourage signatories to incorporate traditional knowledge into the agreement 	PCMB PCMB	YTG, GNWT, CYFN, IGC, CAN YTG, GNWT, CYFN, IGC, CAN
2004-2005	<ul style="list-style-type: none"> • Report on 2004/2005 plan by May, 2005 	ALL	
	<ul style="list-style-type: none"> • Implement changes to PCMA 	ALL	

F. CULTURE AND EDUCATION		Lead	Support
Actions Each Year	<ul style="list-style-type: none"> • Produce and distribute an annual report • Continue to discuss biology and co-management in newspaper column • Continue to solicit community members opinions on PCH issues through the “Community Caribou Update” • Ensure that schools are using PCH schools program 	PCMB PCMB PCMB PCMB	
	<ul style="list-style-type: none"> • Send representatives to Traditional Knowledge workshops when they are held 	PCMB	ALL
	<ul style="list-style-type: none"> • Ensure there is funding for the Johnny Charlie Scholarship Program 	PCMB	
	<ul style="list-style-type: none"> • Hire people from the communities who are qualified for jobs in wildlife research, management, and enforcement 	YTG, GNWT, CAN, GTC, IGC	
2003-2004	<ul style="list-style-type: none"> • Update the technical report on the Porcupine Caribou herd 	TECHNICAL COMMITTEE, YTG	CAN
	<ul style="list-style-type: none"> • Develop form for reporting of traditional and local knowledge. • Encourage users to report Traditional and local knowledge to PCMB. These reports will be forwarded to the Arctic Ecological Knowledge Cooperative. 	PCMB PCMB	ALL
2004-2005	<ul style="list-style-type: none"> • Distribute special report on PCH to user communities and the public 	PCMB	
	<ul style="list-style-type: none"> • Encourage users to report Traditional and local knowledge to PCMB. These reports will be forwarded to the Arctic Ecological Knowledge Cooperative 		

G. TOURISM AND INDUSTRY		Lead	Support
Actions Each Year	<ul style="list-style-type: none"> • See Range Use re: protection of the calving grounds 		
	<ul style="list-style-type: none"> • Review all applications and make recommendations for oil and gas leases in the range of the herd • Participate in any management plans that involve the PCH • Do presentations to industry representatives if required and provide information on the PCH 	PCMB, YTG, GNWT, CAN PCMB, YTG, GNWT, CAN YTG, GNWT, CAN	
	<ul style="list-style-type: none"> • Distribute posters and other relevant information on the PCH to tourist outlets in the North • Encourage reporting of people who harass caribou • Continue to put up caribou harassment by aircraft posters in prominent places where they can be seen by tourists, tour operators, and aircraft charter companies 	PCMB PCMB, RRCs, HTCS, IGC PCMB	YTG, GNWT, CAN YTG, GNWT,
	<ul style="list-style-type: none"> • Keep track of the Withdrawal area • Keep contributing to the protected area processes 	PCMB PCMB	
2003-2004	<ul style="list-style-type: none"> • Produce a summary of the Dempster Highway Caribou Disturbance Study 	YTG, PCMB	GNWT
2004-2005	<ul style="list-style-type: none"> • Distribute the summary of the Dempster Highway Caribou Disturbance Study to the public 	YTG, PCMB	GNWT