

PAULATUK COMMUNITY CONSERVATION PLAN Paulatuum Angalatchivingit Niryutinik

A plan for the conservation and management of renewable resources and lands
within
The Inuvialuit Settlement Region in the vicinity of Paulatuk, Northwest Territories



Prepared by

The Paulatuk Hunters and Trappers Committee, Paulatuk
Community Corporation, and
The Wildlife Management Advisory Council (NWT), The
Fisheries Joint Management Committee
and the Joint Secretariat

2016



Nelson Allen Green
October 8, 1948 - January 9, 1999

His magical aspirations are very visible. Along with his stern beliefs which are deeply embedded. His love of the land and wildlife, and of which he stands for. The utmost dedication in which he has given. We are forever in gratitude. For this, we give you in your honour, the Paulatuk Conservation Plan.

- Ruben Green

“Conservation is ensuring that if we take caribou, there will be caribou the next year and the year after that. The same for anything else. This applies to all uses of the land: if it is used and enjoyed now, it must be left and preserved so that it will be there for the next year and for future years.”

Peter Green,
Original Paulatuk Conservation Working Group

“This plan has been well thought out, using traditional knowledge. We are the ones who know the area, as well as the different seasons, and the times of when different animals migrate. We’ve always hunted with the thought of using it wisely. These things are very important to our future and us.”

Edward Ruben, Paulatuk Elder

The 2016 Paulatuk Community Conservation Plan has been prepared in consultation with the Inuvialuit Community in Paulatuk and Inuvialuit and non-Inuvialuit bodies with an interest in the area. The undersigned representatives hereby adopt this document for the purpose of guiding policy and resource management in the planning area.



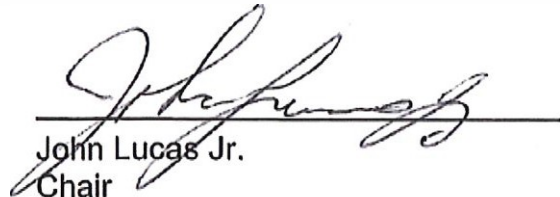
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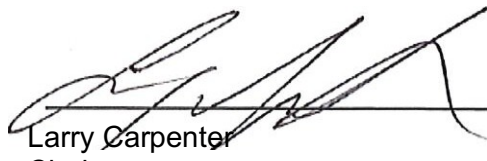
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IMPORTANT DEFINITIONS AND ABBREVIATIONS

The following important words and abbreviations have been used in the Community Conservation Plan and are explained below.

Community

Refers to all the Inuvialuit individuals living in the area and the local organizations, which represent them. Those organizations include the Hunters and Trappers Committee, Elders, Community Corporation, Community Education Council and Hamlet.

Conservation

Is ensuring that if we take caribou, there will be caribou the next year and the year after that. The same for anything else. This applies to all uses of the land: if it is used and enjoyed now, it must be left and preserved so that it will be there for the next year and for future years.

Ecosystem

Refers to all of the plants and animals in an area, including the air, water and land on which they depend. The parts of the ecosystem are interconnected and influence one another. Food and energy flow through the ecosystem and are returned to it. Successful conservation and management depend on the recognition that changing one part of the ecosystem may affect the other parts.

CWS - Canadian Wildlife Service

DFO - Department of Fisheries and Oceans

DoL – Department of Lands, GNWT

DOT - Department of Transportation

ENR - Department of Environment and Natural Resources

EIRB - Environmental Impact Review Board

EISC - Environmental Impact Screening Committee

FJMC - Fisheries Joint Management Committee

GNWT - Government of the Northwest Territories

GRRB - Gwich'in Renewable Resource Board

GTC - Gwich'in Tribal Council

HTC - Hunters and Trappers Committee

IFA - Inuvialuit Final Agreement

IGC - Inuvialuit Game Council

ILA - Inuvialuit Land Administration

IRC - Inuvialuit Regional Corporation

ISR - Inuvialuit Settlement Region

PCC - Paulatuk Community Corporation

ITI – Industry, Tourism and Investment

PHTC - Paulatuk Hunters and Trappers Committee

PWNHC - Prince of Wales Northern Heritage Centre

WMAC (NS) - Wildlife Management Advisory Council (North Slope)

WMAC (NWT) - Wildlife Management Advisory Council (Northwest Territories)

YTG - Yukon Territorial Government

The Mackenzie Valley Pipeline issue perked up the NWT government, an ISR-wide exercise for Community Conservation Plans began. The excitement rang of the 1970s development activities. Our land rights were settled yet we were drawn in.

The Inuvialuit Regional Corporation, Paulatuk Hunters and Trappers Committee and the Paulatuk Community Corporation began its involvement. It drew a good cross section of community members. A first meeting saw its beginning years ago, two rules of the group stuck; 1. Teamwork and 2. Equal decision-making.

The Group brought the best of many experiences. These included Traditional Knowledge, leadership and living off the land backgrounds. The conservation plan process began; members worked long hours and were committed.

Finally a draft plan merged. It reflected the strong and rich Inuvialuit culture and values. Areas of the land identified as caribou calving grounds, cultural use areas and where Inuvialuit camped, gravesites and important wildlife, fish and bird harvesting and staging areas were written into the plan.

Over the years Paulatuk experienced many sad losses of loved ones and family. Their untimely death brought grief, yet families drew the strength from the legacy of the loved one.

Dedicated is this plan in their memory.

Earned gratitude, respect and honours to the late Nelson A. Green, to the late Edward Ruben, to the late Adam Ruben, to the late Pat Ruben and to the late Anny Illasiak.

On behalf of the current Working Group members, I say we are grateful and privileged to have worked with and have associated with the past, awesome and unforgettable members of the working group whose legacy we cherish.

Koyaninenekpaluk and May God Bless you all,

Peter Green
Paulatuk Original Working Group Member and Elder

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EXECUTIVE SUMMARY

The **Paulatuk Community Conservation Plan** is a community-based planning document that was originally prepared in 1990 by the Paulatuk Hunters and Trappers Committee, Paulatuk Community Corporation, and Paulatuk Elders Committee. Creation of community-based conservation plans was the first objective of the Inuvialuit Renewable Resource Conservation and Management Plan (1988), a document jointly prepared by the Wildlife Management Advisory Council (NWT) and the Fisheries Joint Management Committee in partial fulfillment of their obligations under the Inuvialuit Final Agreement. Numerous Inuvialuit and non-Inuvialuit organizations were consulted during the planning process. A wide range of existing conservation plans were considered by the joint Working Group and extensive use was made of the Land Use Plan for the Mackenzie Delta Beaufort Sea Region.

The updated 2000 Paulatuk Community Conservation Plan built upon the work of the original document. A Working Group was re-established as part of the review exercise, and extensive consultation was once again undertaken with Inuvialuit and non-Inuvialuit organizations.

In the spring of 2008 the conservation plans were updated with new working groups from each of the Inuvialuit communities.

In early 2015, Community Conservation Plan Working Groups were re-established in all 6 ISR communities. The Working group reviewed the plans, provided feedback of changes and consultation was once again undertaken with Inuvialuit and non-Inuvialuit organizations. In spring of 2016, all 6 Working Groups were brought together for a verification workshop in Inuvik.

The document is intended to provide guidance to all those with an interest in the planning area. The Plan contains a brief description of the current conservation and resource management system in the Inuvialuit Settlement Region and describes the strategy to address five broad goals:

1. To identify important wildlife habitat, seasonal harvesting areas and cultural sites and make recommendations for their management.
2. To describe a community process for land use decisions and managing cumulative impacts, which will help protect community values and the resources on which priority lifestyles depend.
3. To identify educational initiatives for the Inuvialuit of Paulatuk and others interested in the area, that will promote conservation, understanding and appreciation.
4. To describe a general system of wildlife management and identify population goals and conservation measures appropriate for each species of concern in the planning area using the knowledge of community and others with expertise.
5. To enhance the local economy by adopting a cooperative and consistent approach to community decision making and renewable resource management.

The Paulatuk Community Conservation Plan will be subject to a progress review and potential amendment every five years or as needed. The HTC is responsible for initiating the review, to be conducted by the Community Conservation Plan Working Group. All feedback should

be provided to the Joint Secretariat for integration in updated versions of the Plan. Minor revisions or corrections to the Plan may be sent to the Joint Secretariat at any time, for entry into subsequent versions. A complete review of the Plan by all stakeholders will occur a minimum of every eight years.

Copies of the Plan are available from the Wildlife Management Advisory Council (NWT), P.O. Box 2120, Inuvik, NWT, X0E 0T0. Phone (867) 777-2828.

ACKNOWLEDGEMENTS

1990

The Paulatuk Conservation Plan results from the efforts of many people. The Paulatuk Conservation Working Group was established to work on conservation principles as mandated in the *Inuvialuit Final Agreement*. This group also participated in the Land Use Planning Process for the Mackenzie Delta Beaufort Sea Region. The Working Group represents the interests of different organizations within the community. Working Group members who participated in the development of this Plan were Nelson Green, Noel Green, Peter Green, Tony Green, Adam Ruben, Albert Ruben, Edward Ruben, Pat Ruben and Paulatuk Community Corporation Chairs. In addition to Working Group members, the majority of community residents contributed directly to this Plan through the consultation process.

The Mackenzie Delta Beaufort Sea Regional Land Use Planning Commission deserves mention for its support and assistance throughout the planning process.

Other individuals who contributed to the various drafts of the Plan and workshops were: Jim Bourque, NWT Department of Renewable Resources, Yellowknife; Mike Drescher, Inuvialuit Land Administration, Tuktoyaktuk; Wanda Erikson, Mackenzie Delta Beaufort Sea Regional Land Use Planning Commission, Inuvik; Bob Ferguson, NWT Department of Renewable Resources, Yellowknife; Gord Hamre, Canadian Parks Service, Yellowknife; Ian Robertson, NWT Department of Renewable Resources, Yellowknife; and Nancy Witherspoon, Department of Fisheries and Oceans, Inuvik.

Tom Nesbitt from Avati Associates in Yellowknife facilitated workshops on the Conservation Plan, prepared early drafts of the document and worked closely with the community Working Group. The final drafts of the Plan were prepared by Leslie Treseder, with the help of Randal Glaholt, Peter Green, Lois Harwood, Bill Mair, the Paulatuk Working Group members and the members of the WMAC(NWT) and FJMC.

The map atlas that accompanies the Plan was drawn by Mike Draper and produced by the Mackenzie Delta Beaufort Sea Regional Land Use Planning Commission, except the fisheries map which was prepared by Jay Bradley under contract to the Land Use Planning Commission. Background research for the map atlas was done by Alan Fehr, also under contract to the Commission. The figures in the Plan were drawn by Mike Draper. The Plan was printed at Printworks Ltd. in Edmonton, Alberta.

2000

Revisions to the 2000 Community Conservation Plan could not have been achieved without the dedicated efforts of: Nelson Green, Noel Green, Ruben Green, Tony Green, Albert Ruben, Bobby Ruben, Edward Ruben, and the staff of the Joint Secretariat. Brian Johnston (Resource Person, WMAC(NWT)) and Michael Muller (GIS Specialist, Joint Secretariat) conducted community consultations and drafted the updated document, based on the recommendations of the community. The current plan is produced and distributed by the Joint Secretariat.

2008

The 2008 Paulatuk Community Conservation Plan would have not been such a success if it were not for the following: The Paulatuk Working Group; David Ruben, Anny Illasiak, Fred Thrasher, Lawrence Ruben, Ruben Ruben Sr. and Bobby Ruben Sr., The Wildlife Management Advisory

Council, Fisheries Joint Management Committee and the Joint Secretariat. Also, a very big thank you to the Department of Environment and Natural Resources for making the old maps available to the Working Group and drafting the amended maps.

2016

Revisions to the 2015/2016 Community Conservation Plan would not have been so successful without the dedicated efforts of: The Paulatuk Community Working Group (Peter Green, Michael Jonathon Green, Bobby Ruben Sr., Lily-Ann Green, Paul Green, Ruben Green & Lawrence Ruben), The Wildlife Management Advisory Council (NWT), Fisheries Joint Management Committee & Joint Secretariat. Thanks to CWS, DFO and ENR for reviewing and providing comments and to IRC and ENR for providing GIS support to change the maps. On behalf of the Paulatuk Working Group, we would like to recognize and acknowledge the advice and wisdom of the elders who helped lay out the original document.

1 INTRODUCTION

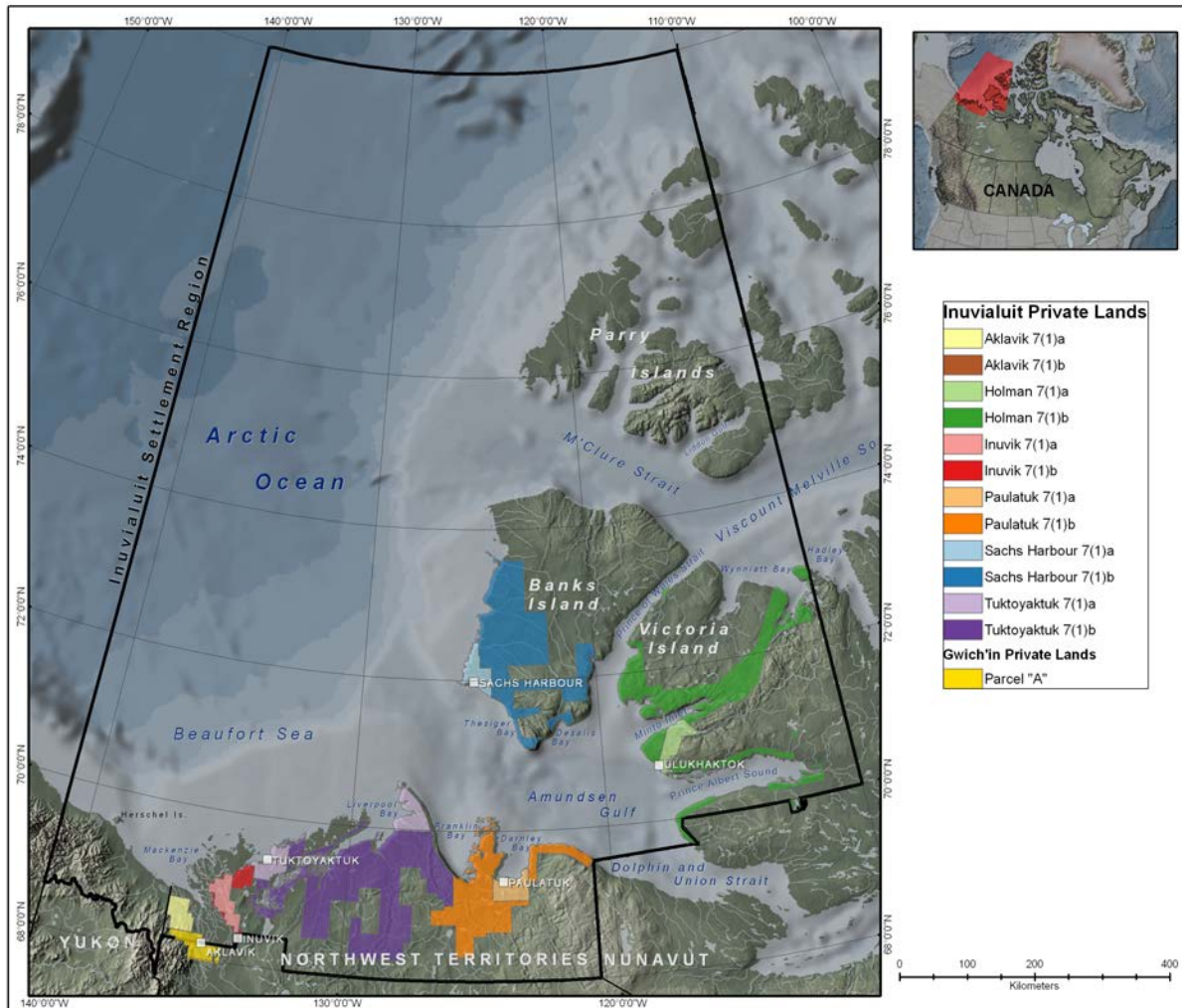
The Inuvialuit of the Beaufort Sea coastal area have relied upon the area's wildlife for many years. This plan was developed to help protect the environment in the Delta / Beaufort Sea coastal area and onshore and offshore areas to ensure cultural survival of the Inuvialuit Community, in accordance with the *Western Arctic (Inuvialuit) Claims Settlement Act* and the Inuvialuit Renewable Resource Conservation and Management Plan.

Development of the original plan was coordinated by representatives of the Paulatuk Hunters and Trappers Committee (PHTC), the Community Corporations, the Elders Committee, youth and other community representatives. To prepare this plan, the Paulatuk Community Conservation Plan Working Group carefully reviewed the previous community conservation plan, species management plans, the Inuvialuit Renewable Resources Conservation and Management Plan, the Regional Land Use Plan for the Mackenzie Delta-Beaufort Sea Region and relevant documents arising from the Inuit Circumpolar Conference.

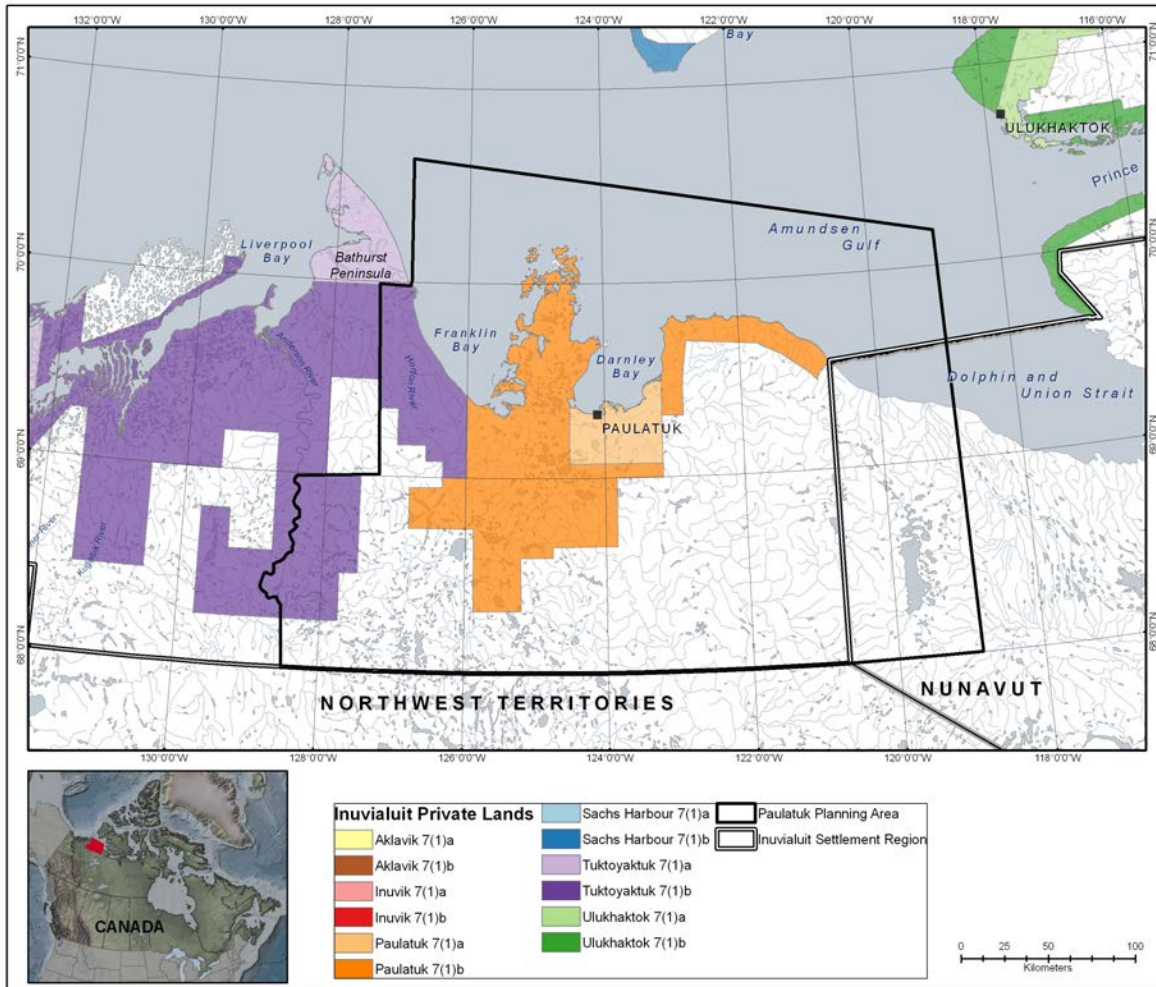
In addition, considerable effort was made to obtain opinion and advice from Inuvialuit members of the community as well as government agencies. The plan is intended to express the Inuvialuit community's specific goals and objectives with respect to conservation of lands, waters and living resources in the Inuvialuit Settlement Region (Map 1). It makes recommendations and describes activities to be undertaken by individuals and organizations at the local, regional and national level. The plan describes a process for avoiding land use conflicts and dealing with cumulative impacts. We hope the plan will assist the Inuvialuit and others in ensuring conservation and environmental protection of the area.

The Paulatuk Community Conservation Plan has been formally adopted in the PHTC and Community Corporation bylaws. The Plan will be reviewed every eight years and amended at that time if necessary. An additional annual progress evaluation will be conducted by the PHTC.

The updating exercise of 2015/2016 that has produced the current version of the Plan was spearheaded by the PHTC and PCC, a newly re-established Community Working Group, and the staff of the Joint Secretariat. Once again, consultation with Inuvialuit and non-Inuvialuit organizations and co-management bodies played an important role in the review process. A multi-stakeholder workshop was held in 2016 to exchange advice and recommendations before the final version of the Community Conservation Plans were drafted.



Map 1. Inuvialuit Settlement Region and Private Lands



Map 2 Paulatuk Conservation Planning Area and Private Lands

1.1 A BRIEF HISTORY OF THE PAULATUK AREA

The Inuvialuit have lived in the Paulatuk area for thousands of years. The region was abandoned around 1900 as people moved west to participate in whaling and fur-trading activities (Usher 1976). In the 1920's the area was re-colonized due to the success of the fur trade. Early successes were short-lived, however, and people soon returned to the nomadic way of life. Hunting and fishing were the foundations of the economy.

The Roman Catholic Church operated a mission and trading post at the present community site from 1935 to 1954. When people left, the post closed. In 1954-55 the Distant Early Warning (DEW) Line Station opened at Cape Parry, and a small settlement was established about five kilometers (3 mi) from there. At that time community living replaced the nomadic way of life.

Cape Parry was abandoned as a settlement in the mid-1960's. Several families returned to the site of the old mission to establish the present community.

During the 1970's the population of Paulatuk grew rapidly as the community was established (Staples, 1986). By 1986, the population of Paulatuk was 193, and half the people were under the age of 20 (Statistics Canada, 1986). The rapid rate of population increase is expected to continue. Most people who are born in Paulatuk stay in the community, and residents are concerned about supporting their growing population without damaging the renewable resources of the area. Community residents are also anxious to enhance economic opportunities for a growing population. In 2016, the population of Paulatuk was 327 (NWT Bureau of Statistics).

Paulatuk's current economy is based mostly on wage employment with a few members of the community still relying on sports hunting & trapping for their income. However, the majority of community members still rely heavily on country foods harvested in a traditional manner. Limited employment is available in private business and government services. In recent years, there has been a minimal interest in mineral exploration in the region.

In the past, big game hunting was a large part of the economy. With the establishment of Tukturnogait National Park, tourism is also a potential source of future income for the community. Most community residents still depend on the land, and more than 75 per cent of households derive most or all of their food from hunting and fishing (Staples 1986). Four outpost camps south of the community are the focus for trapping, and families live off the land year-round.

Residents of Paulatuk have experienced many changes in the recent past, and they expect more changes for the future. To cope with them they have tried to plan for development of their community. In 1968 Paulatuk was incorporated as a settlement. In 1984 Paulatuk and the other Inuvialuit communities signed the *Inuvialuit Final Agreement* with Canada. An economic development strategy was prepared in 1986 (Staples 1986). In 1987 Paulatuk was incorporated as a Hamlet. This Conservation Plan will help the community to further manage change and to preserve the option of living off the land for the present and future generations.

1.2 INUVIALUIT FINAL AGREEMENT AND RENEWABLE RESOURCE MANAGEMENT

1.2.1 Inuvialuit Final Agreement

To secure and protect the homeland of the Inuvialuit in the Beaufort Sea region, known as the Inuvialuit Settlement Region (ISR), the Inuvialuit and the governments of Canada, the Northwest Territories, and the Yukon, negotiated The Inuvialuit Final Agreement (IFA). Proclaimed on July 24, 1984, the IFA includes the Northern Mackenzie Delta, Yukon North Slope and the western portion of the Arctic Islands. The IFA established several new management bodies to help ensure that the land and its living resources are conserved for the benefit of the Inuvialuit (see Appendices D and E). In addition to the summaries presented below, additional detailed information is available from the organizations described.

1.2.2 Wildlife Management Advisory Councils (NWT and NS) and Fisheries Joint Management Committee

The IFA created three new co-management bodies: the Wildlife Management Advisory Council (NWT), (WMAC (NWT)), the Wildlife Management Advisory Council (North Slope) (WMAC (NS)) and the Fisheries Joint Management Committee (FJMC). The WMAC (NWT) provides advice to appropriate government ministers and Inuvialuit agencies on all matters relating to wildlife policy and the management, regulation and administration of wildlife, habitat and harvesting in the Northwest Territories portion of the Inuvialuit Settlement Region. The WMAC (NWT) also advises government on wildlife related issues of park planning and management. The WMAC (NS) fills a similar role as the WMAC (NWT) however, its focus is on the Yukon North Slope. In addition to providing advice to government ministers, the WMAC (NS) is also expected to provide advice to the Porcupine Caribou Management Board, the EIRB and other groups. The FJMC assists Canada and the Inuvialuit in a similar fashion, managing the area's marine mammals and marine and freshwater fisheries. The FJMC also coordinates delivery of the HTC registration system for fishing by non-beneficiaries on private land.

1.2.3 Inuvialuit Game Council and Hunters and Trappers Committees

The IFA also created the Inuvialuit Game Council (IGC) and provided for the creation of a Hunters and Trappers Committee (HTC) in each of the six Inuvialuit communities. The IGC is intended to represent the collective or entire Inuvialuit interest in wildlife and to advise the government, often through the WMAC (NWT) and FJMC. The HTC is, among other things, responsible for local resource allocation and is expected to encourage and promote Inuvialuit involvement in conservation, research, management, enforcement and utilization

1.2.4 Inuvialuit Land Administration

The Inuvialuit Land Administration (ILA) manages and administers access to Inuvialuit private lands - 7(1)(a) and 7(1)(b) lands (see Map 2). Development proposals on private land are screened by the ILA although they may also be referred to the Environmental Impact Screening Committee by the Inuvialuit.

All applications submitted to the ILA are distributed to the local HTCs and Community Corporations for review and comment. Final approval of applications is made by the ILA. ILA has the authority to attach a variety of conditions to land use authorizations for projects on Inuvialuit lands as described in the IFA. ILA is concerned with ensuring development activities are carried out responsibly and that economic benefits from development flow to Inuvialuit. The Inuvialuit Land Commission provides ILA with advice and guidance considers policy

considerations and acts as a liaison between ILA and Inuvialuit communities.

1.2.5 Environmental Impact Screening Committee and Environmental Impact Review Board

Under the terms of the IFA, the Environmental Impact Screening Committee (EISC) screens all development proposals on Crown lands within the ISR to determine if there is potential for significant negative environmental impact (see Appendix H). Projects in the offshore are also screened by the EISC, in response to a request from the Inuvialuit Game Council. Projects which may have significant negative impact are referred to the Environmental Impact Review Board (EIRB) or other equivalent environmental review processes for a public assessment and review. The EIRB has the authority to conduct a detailed public review and make recommendations to the competent governmental authority, with respect to proposed developments.

The community believes that the existing methods for environmental screening and review can be incorporated as part of the general conservation process for the Planning Area (see also Section 4.4). The community supports development where it is compatible with the Conservation Plan's land use and species management priorities. A copy of the EISC and EIRB *Operating Guidelines and Procedures* has been provided to the HTC for public information.

2 COMMUNITY VALUES

The following principles express Inuvialuit community beliefs and values with respect to conservation and resource management in the planning area (see Map 2):

(a) Conservation is First Priority

All uses of the land in the Planning Area, including renewable and non-renewable resource development, must recognize conservation of the renewable resource base as the foremost priority. This applies to uses of the land by the community and by other interests.

(b) Integrated Management

All parts of the environment are interconnected, so they must be managed together. Conservation, stable economic development and sound resource management can only be achieved if all parties work toward a common goal. The Inuvialuit community of Paulatuk recognizes the relationship between direct economic security and resource conservation and the importance of maintaining a spirit of cooperation between all people living in the region.

(c) Maximize Community Benefit

Renewable and non-renewable resource development in the Paulatuk planning area should be of maximum benefit to community residents, with priorities for Inuvialuit as detailed in the IFA. Development projects should be scaled to retain opportunities and ensure the most lasting benefit to the local economy.

(d) Protect Priority Community Activities

Priority activities to be supported and protected by the Paulatuk Community Conservation Plan are hunting, fishing, guiding, trapping, tourism and arts and crafts manufacturing.

(e) Cooperative Management of Shared Resources

The Paulatuk Community Conservation Plan recognizes a special need for cooperation in the management of migratory species, which are also used by other Inuvialuit and non-Inuvialuit.

(f) Maintain Healthy Environment

The Inuvialuit of Paulatuk place a high priority on maintaining air and water quality and the health of the resources.

(g) Consistency

The Paulatuk Community Conservation Plan should be consistent with the Principles of Wildlife Harvesting and Management from the IFA, (Appendix A), the goals and principles of the Inuvialuit Renewable Resource Conservation and Management Plan (1988), (Appendix B), the goals of the North Slope Wildlife Conservation and Management Plan (1993) (Appendix C), the Regional Land Use Plan (1991), the Arctic Environmental Strategy (1991), and other conservation plans or agreements endorsed by the community's representatives (e.g. Management Agreement for Polar Bears in Population H1 (1991), the Beaufort Sea Beluga Management Plan (1991). The plan has also been developed in consideration of the draft Inuit Regional Conservation Strategy (1986) prepared for the Inuit Circumpolar Conference Environmental Commission.

3 GOALS

The Inuvialuit Community has identified an overall strategy for conservation and resource management in the Paulatuk Planning Area. This strategy is based on five general goals:

1. Identify and Protect Important Habitats and Harvesting Areas

To identify important wildlife habitat, seasonal harvesting areas and cultural sites (for example, cabin sites) and make recommendations for their management.

2. Land Use Decisions

To describe the community process for making land use decisions and managing cumulative impacts, which will help, protect community values and conserve the resources on which priority lifestyles depend.

3. Education

To identify educational initiatives for the Inuvialuit of Paulatuk and others interested in the area, which will promote conservation, understanding and appreciation.

4. Define Species Management

To describe a general system for wildlife management and conservation and identify population goals and conservation measures appropriate for each species of concern in the planning area. This will be done using the knowledge of the Community and others with expertise.

5. Enhance Economy

To enhance the local economy by adopting a cooperative and consistent approach to community decision making and resource management. This approach will help ensure economic stability and maintenance of all components of the Arctic ecosystem.

Information and recommendations required to satisfy the above goals for the Planning Area are described in the sections, which follow.

4 SPECIAL AREAS AND RECOMMENDED LAND USE PRACTICES FOR THE PLANNING AREA

Most of the areas and recommended land use practices described in this section were originally identified in the Regional Land Use Plan for the Mackenzie Delta-Beaufort Sea Region (1991). These areas have been identified because they contain important wildlife habitat and/or harvesting areas. Recommendations have been revised and in some cases moved to more appropriate sections of this plan. The method by which special areas were identified and designated to one land use category or another is consistent with selection criteria first described in the Report of the Task Force on Northern Conservation (1984).

Guidelines for land use practices to be followed in these areas are included in the area descriptions which follow, as well as in other sections of this plan. A set of general land use recommendations is provided at the end of Section 4.1. A community-based process for arriving at land use decisions is presented in Section 4.2. Processes to assist with the management of cumulative impacts and recommendations for environmental screening and review of development proposals are presented in Sections 4.3 and Section 4.4, respectively.

In designating land use categories, the Inuvialuit community has attempted to recognize priority land uses and activities, as well as areas of special ecological and cultural importance. Land designations may be modified as additional information becomes available and provided the health and biological productivity of the planning area is maintained. Each area of importance has been given a letter designation corresponding to the categories below:

Category A

Lands where there are no known significant and sensitive cultural or renewable resources. Lands shall be managed according to current regulatory practices.

Category B

Lands where there are cultural or renewable resources of some significance and sensitivity but where terms and conditions associated with permits and leases shall assure the conservation of these resources.

Category C

Lands and waters where cultural or renewable resources are of particular significance and sensitivity during specific times of the year. These lands and waters shall be managed so as to eliminate, to the greatest extent possible, potential damage and disruption.

Category D

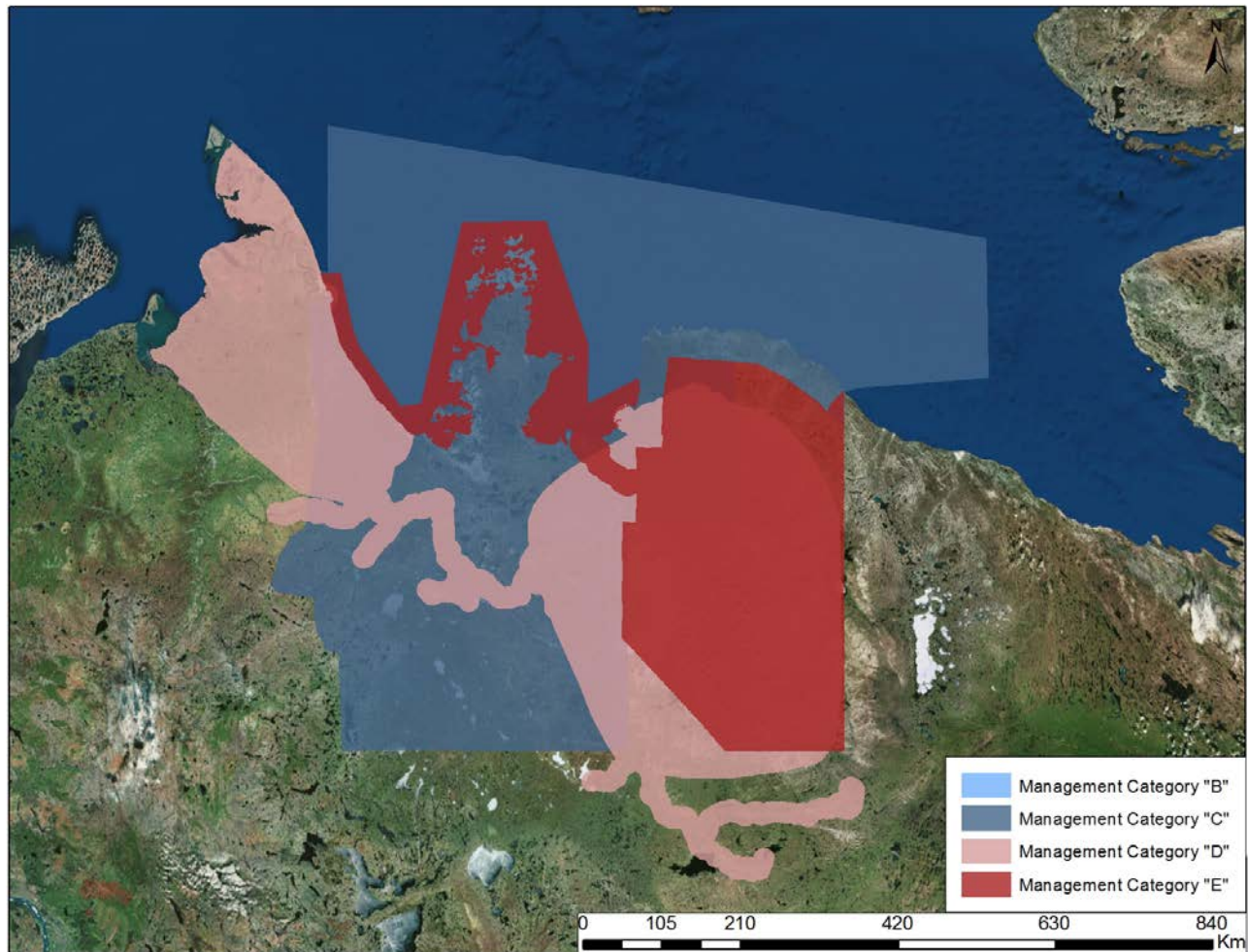
Lands and waters where cultural or renewable resources are of particular significance and sensitivity throughout the year. As with Category C, these areas shall be managed so as to eliminate, to the greatest extent possible, potential damage and disruption.

Category E

Lands and waters where cultural or renewable resources are of extreme significance and sensitivity. There shall be no development on these areas. These lands and waters shall be managed to eliminate, to the greatest extent possible, potential damage and disruption. This category recommends the highest degree of protection in this document.

4.1 PAULATUK PLANNING AREA - SPECIAL DESIGNATED LANDS

Maps and detailed description of the special designated lands listed below are described in the text, which follows (see list of maps page 9 for list of Paulatuk planning area sites). The following map (Map 3) shows an overlay of all designated sites in the Paulatuk planning area by management category.



Map 3. Overlay of all sites in the Paulatuk planning area by Management category

SITE NO. 400B PAULATUK OUTPOST CAMPS

Identified By

Paulatuk Community Working Group

Management Category

B

Ownership

Crown lands, private 7(1)a and 7(1)b lands, and Tuktut Nogait National Park

Description

The site is made up of outpost camps used by families from Paulatuk, which are located along the shorelines of Delease, Granet, Tadenet, Fallaize, Ewariege and Tsoko lakes, and at a river mouth south of Tsoko Lake.

Importance of the Site to the Community of Paulatuk

Extremely important to the families of Paulatuk for hunting, fishing, trapping and gathering berries. The Bluenose West caribou herd migrates through these areas every spring.

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

Overlapping Military, Transportation and Tourism Interests and Activities

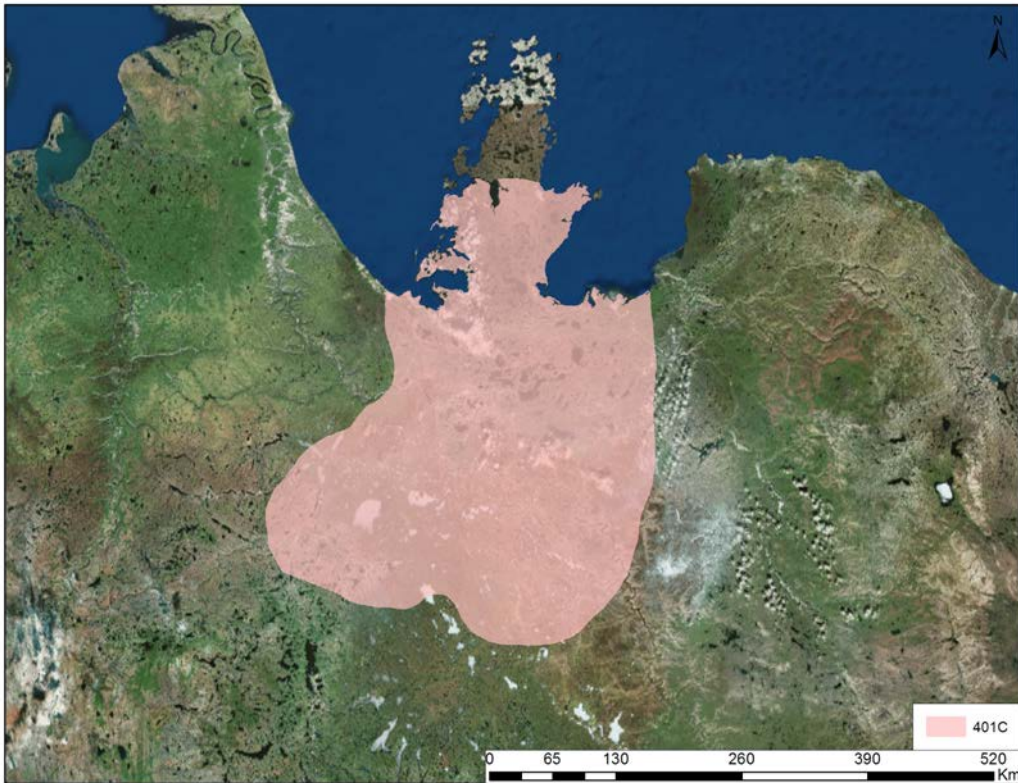
Sport hunting for caribou, muskox, wolf and grizzly bear take place in the vicinity of these outpost camps.

Community Working Group Concerns

The working group is concerned that the remains of these abandoned sites are contaminating the area.

Community Working Group Recommendations

The working group wishes to see these abandoned sites cleaned up and reclaimed to their original state. Including the removal of old oil drums and other waste materials.

SITE NO. 401C SPRING CARIBOU HARVESTING AREAS**Map 4. Site 401C Spring Caribou Harvesting Areas****Identified By**

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

Crown lands, private 7(1)a and 7(1)b lands.

Description

Extends from the middle of the Parry Peninsula, north of Ewariege Lake, west of Tadenet Lake and west of the Tuktut Nogait National Park.

Importance of the Site to the Community of Paulatuk

Subsistence caribou hunting.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

- Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
- Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
- Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
- Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
- Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)

Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Hornaday River (Site no. 426E)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)
Cape Bathurst Caribou Core Calving Grounds (Site no. 731D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

SITE NO. 402C SPRING FISH HARVESTING AREA**Map 5. Site 402C Spring Fish Harvesting Area****Identified By**

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

Crown lands, private 7(1)a and 7(1)b lands, and Tuktut Nogait National Park

Description

Various lakes within the planning area, including: Sadene Lake, Tadenet Lake, Tsoko Lake, Ewariege Lake, Delesse Lake, Granet Lake, Fallaize Lake, Billy Lake, Thrasher Lake, Tasseriuk Lake and Seven Islands Lake.

Importance of the Site to the Community of Paulatuk

Subsistence fishing.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

- Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)
- Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)
- Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
- Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
- Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)

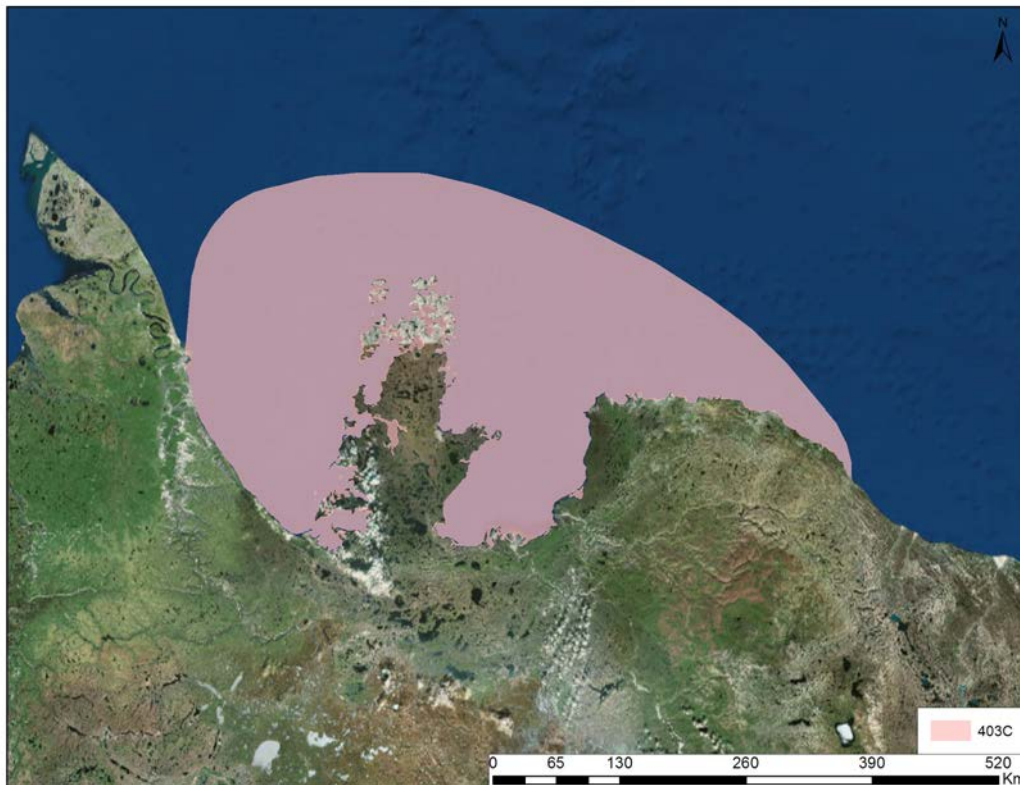
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Tuktut Nogait National Park (Site no. 423E)
Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)
Hornaday River (Site no. 426E)
Pearce Point Historic Site (Site no. 427C)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

Community Working Group Recommendations

See recommendations in the current Paulatuk Char Management Plan.

SITE NO. 403C SPRING POLAR BEAR/SEAL HARVESTING AREAS

Map 6. Site 403C Spring Polar Bear/Seal Harvesting Areas

Identified By

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

Crown waters in the ISR.

Description

Includes the nearshore and offshore waters of Franklin Bay and Darnley Bay, east to the west side of Clinton point.

Importance of the Site to the Community of Paulatuk

Subsistence and sports hunting of polar bears from December 1 to May 31. Important habitat for ringed seals all year.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)

Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)

Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)

Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)

Winter polar bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Franklin Bay, Darnley Bay, Amundsen Gulf-Offshore (Site no. 420C)
Horton and Brock Rivers (Site no. 421D)
Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)
Hornaday River (Site no. 426E)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

SITE NO. 404C SPRING GRIZZLY BEAR HARVESTING AREAS



Map 7. Site 404C Spring Grizzly Bear Harvesting Areas

Identified By

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

7(1)a and 7(1)b, and Crown Lands within the Inuvialuit Settlement Region.

Description

Parry Peninsula, west to the mouth of the Horton River, south along the west side of the Horton River, south to the west side of Simpson Lake at the ISR boundary, east to the Horton River, north to the Hornaday River, and east along the coastal zone to the ISR boundary.

Importance of the Site to the Community of Paulatuk

Subsistence and sport hunting of grizzly bear.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)

Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)

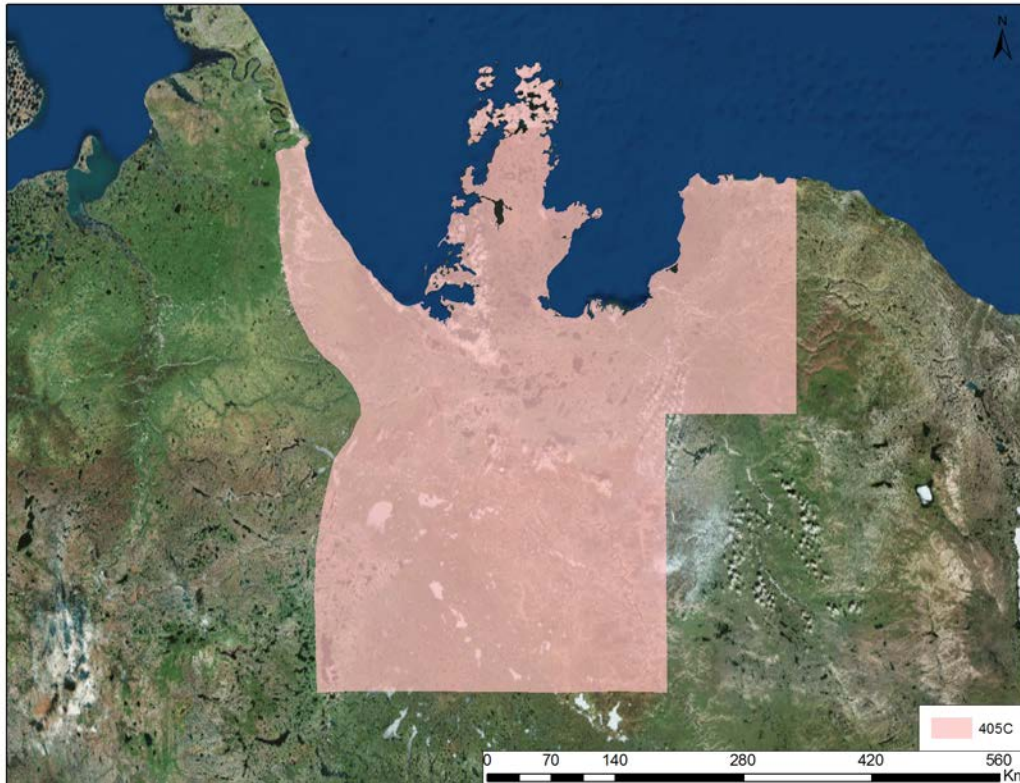
Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)

Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Tuktut Nogait National Park (Site no. 423E)
Hornaday River (Site no. 426E)
Pearce Point Historic Site (Site no. 427C)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)
Cape Bathurst Caribou Core Calving Grounds (Site no. 731D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

SITE NO. 405C SPRING MUSKOX HARVESTING AREAS



Map 8. Site 405C Spring MuskoX Harvesting Areas

Identified By

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

7(1)a and 7(1)b, and Crown Lands within the Inuvialuit Settlement Region.

Description

Extending from Cape Parry, west to the mouth of the Horton River, south to the ISR boundary, east to the Horton River, and north to the Brock Lagoon.

Importance of the Site to the Community of Paulatuk

Subsistence and sports hunting of muskoX.

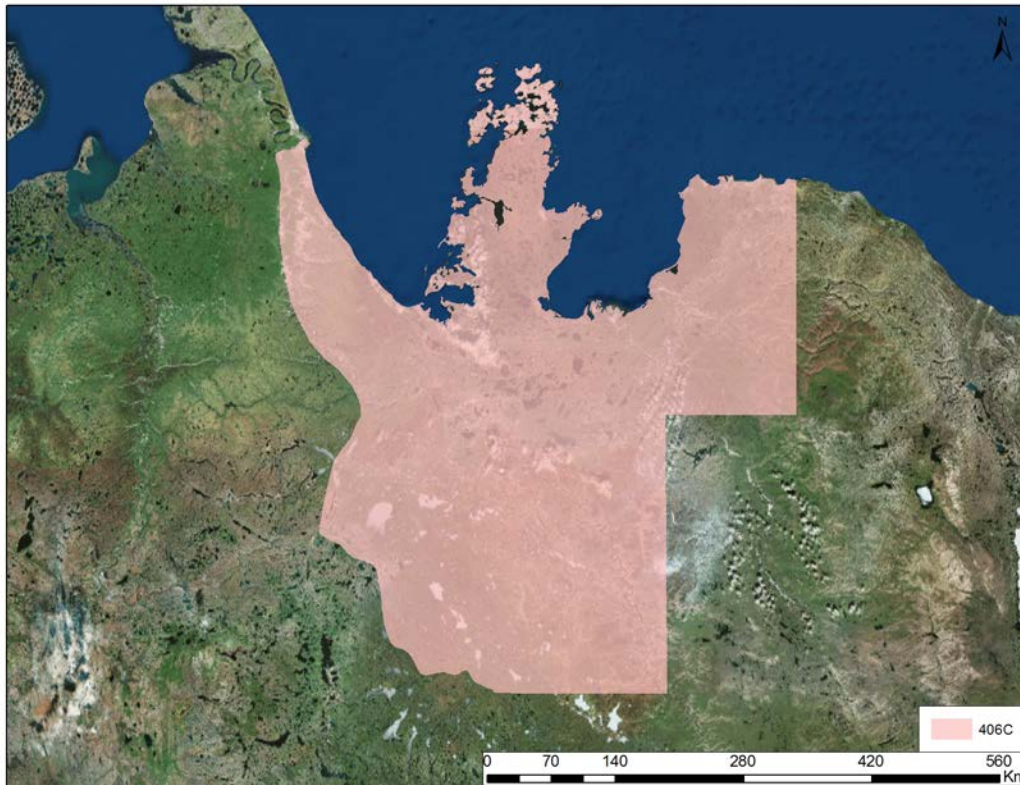
Overlap with Other Special Designated Areas within the Paulatuk Planning Area

- Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)
- Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
- Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
- Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
- Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)

Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Tuktut Nogait National Park (Site no. 423E)
Hornaday River (Site no. 426E)
Pearce Point Historic Site (Site no. 427C)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)
Cape Bathurst Caribou Core Calving Grounds (Site no. 731D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

SITE NO. 406C SPRING WOLF HARVESTING AREAS

Map 9. Site 406C Spring Wolf Harvesting Areas

Identified By

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

Private 7(1) a and 7(1) b, and Crown Lands within the Inuvialuit Settlement Region.

Description

The entire Parry Peninsula, west to the mouth of the Horton River, following the west side of the Horton River, south to the ISR boundary, northeast to the mouth of the Hornaday River, east to Brock Lagoon.

Importance of the Site to the Community of Paulatuk

Subsistence hunting of wolves.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)

Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)

Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)

Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Tuktut Nogait National Park (Site no. 423E)
Hornaday River (Site no. 426E)
Pearce Point Historic Site (Site no. 427C)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)
Cape Bathurst Caribou Core Calving Grounds (Site no. 731D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

SITE NO. 407C SUMMER/FALL CARIBOU HARVESTING AREA

Map 10. Site 407C Summer/Fall Caribou Harvesting Area

Identified By

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

Private 7(1)a and 7(1)b lands within the Inuvialuit Settlement Region.

Description

Cracroft Bay on the Parry Peninsula, to the south side of Fallaize Lake, northeast along the coastal private lands to House Point.

Importance of the Site to the Community of Paulatuk

Subsistence and sports hunting of caribou.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

- Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)
- Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
- Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
- Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
- Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)

Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
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Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
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Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Hornaday River (Site no. 426E)
Pearce Point Historic Site (Site no. 427C)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

SITE NO. 408C SUMMER/FALL GRIZZLY BEAR HARVESTING AREA**Map 11. Site 408C Summer/Fall Grizzly Bear Harvesting Area****Identified By**

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

Private 7(1)a and 7(1)b lands, and Crown Lands within the Inuvialuit Settlement Region.

Description

From the mouth of the Horton River, following a 15 km (9.3 mi) along the coastal shore, including Parry Peninsula, half way to the ISR boundary.

Importance of the Site to the Community of Paulatuk

Subsistence harvesting area for grizzly bears.

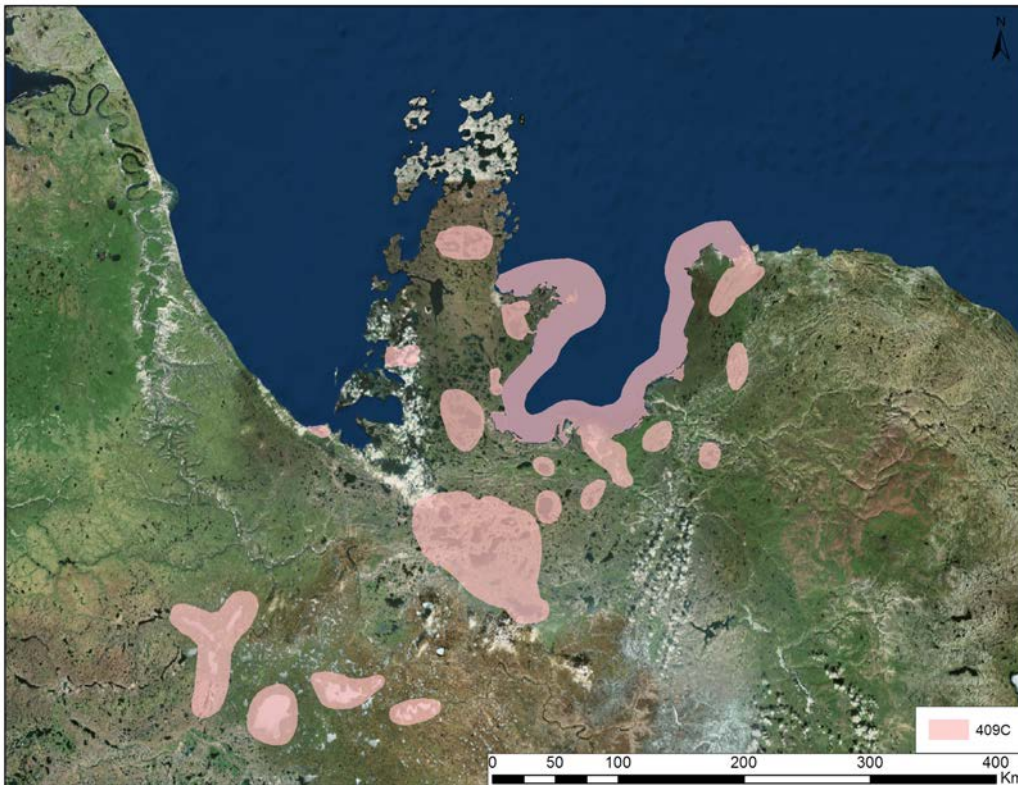
Overlap with Other Special Designated Areas within the Paulatuk Planning Area

- Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)
- Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
- Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)
- Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
- Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)

Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
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Hornaday River (Site no. 426E)
Pearce Point Historic Site (Site no. 427C)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)
Cape Bathurst Caribou Core Calving Grounds (Site no. 731D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

SITE NO. 409C SUMMER/FALL FISH HARVESTING AREA**Map 12. Site 409C Summer/Fall Fish Harvesting Area****Identified By**

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

Coastal waters, and freshwater lakes within 7(1)a, 7(1)b, and Crown Lands within the ISR.

Description

Various freshwater lakes, and coastal waters in Darnley Bay from north of Bennett Point to Pearce Point.

Importance of the Site to the Community of Paulatuk

Subsistence fishing of char (sea-run and land-locked), lake trout, herring and whitefish.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

- Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)
- Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
- Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)
- Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
- Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
- Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)

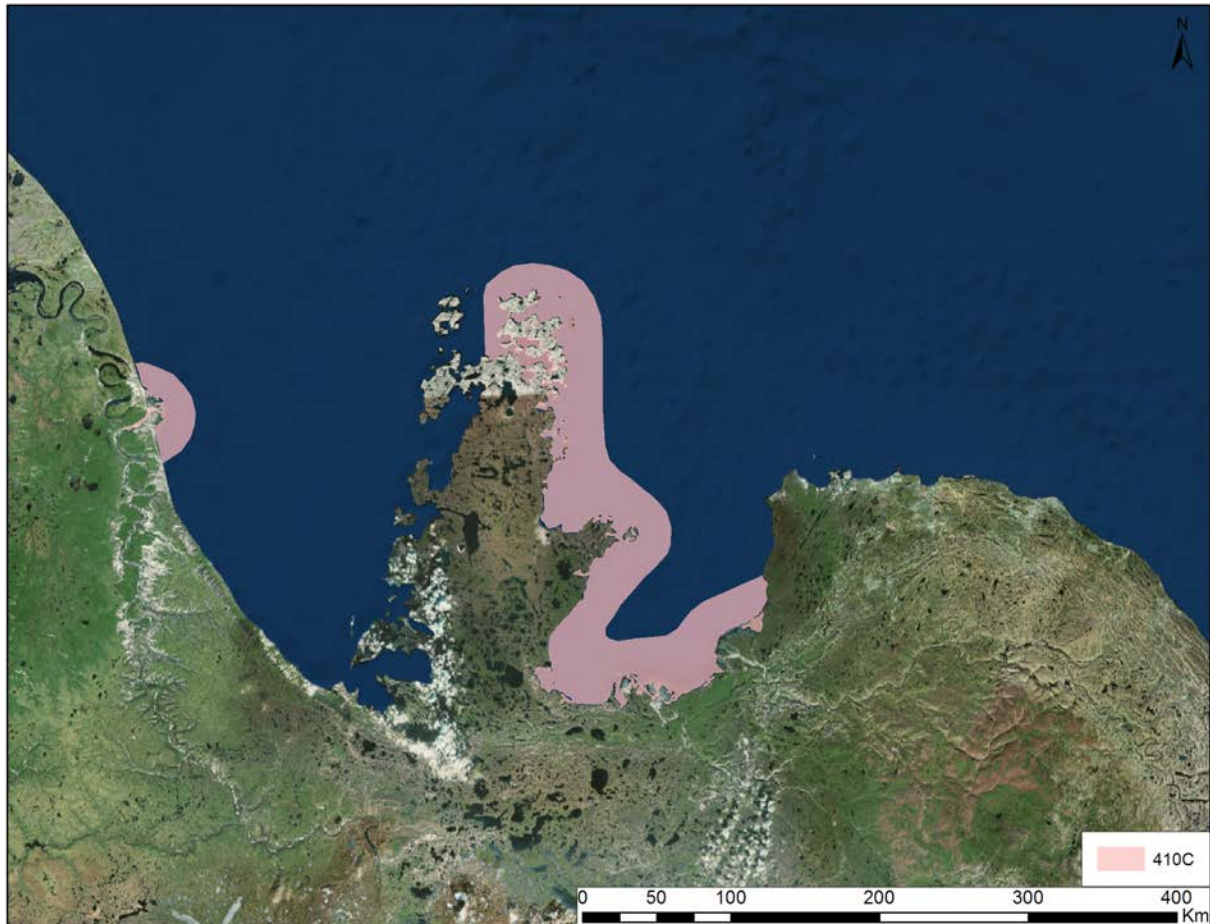
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Franklin Bay, Darnley Bay, Amundsen Gulf-Offshore (Site no. 420C)
Horton and Brock Rivers (Site no. 421D)
Tuktut Nogait National Park (Site no. 423E)
Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)
Hornaday River (Site no. 426E)
Pearce Point Historic Site (Site no. 427C)
Bluenose-West Caribou Core AN AOI

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

Community Working Group Recommendations

See recommendations in the current Paulatuk Char Management Plan.

SITE NO. 410C SUMMER/FALL BELUGA WHALE HARVESTING AREAS

Map 13. Site 410C Summer/Fall Beluga Whale Harvesting Areas

Identified By

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

Nearshore and offshore waters. (Crown)

Description

Mouth of the Horton River; a 15 km (9.3 mi) area from Balaena Bay at Parry Peninsula, following the coast around Darnley Bay, to Lasard Creek.

Importance of the Site to the Community of Paulatuk

Important summer feeding area for beluga and bowhead at the mouth of the Horton River. Subsistence beluga harvesting.

See Beluga Management Plan & PHTC Beluga Hunting Guidelines regarding by-laws for

conducting beluga hunts.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)

Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)

Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)

Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)

Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)

Beluga Management Zone 1B (Site no. 418E)

Parry Peninsula and Offshore Islands (Site no. 419C)

Franklin Bay, Darnley Bay, Amundsen Gulf-Offshore (Site no. 420C)

Horton and Brock Rivers (Site no. 421D)

Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)

Hornaday River (Site no. 426E)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

Overlapping Military, Transportation and Tourism Interests and Activities

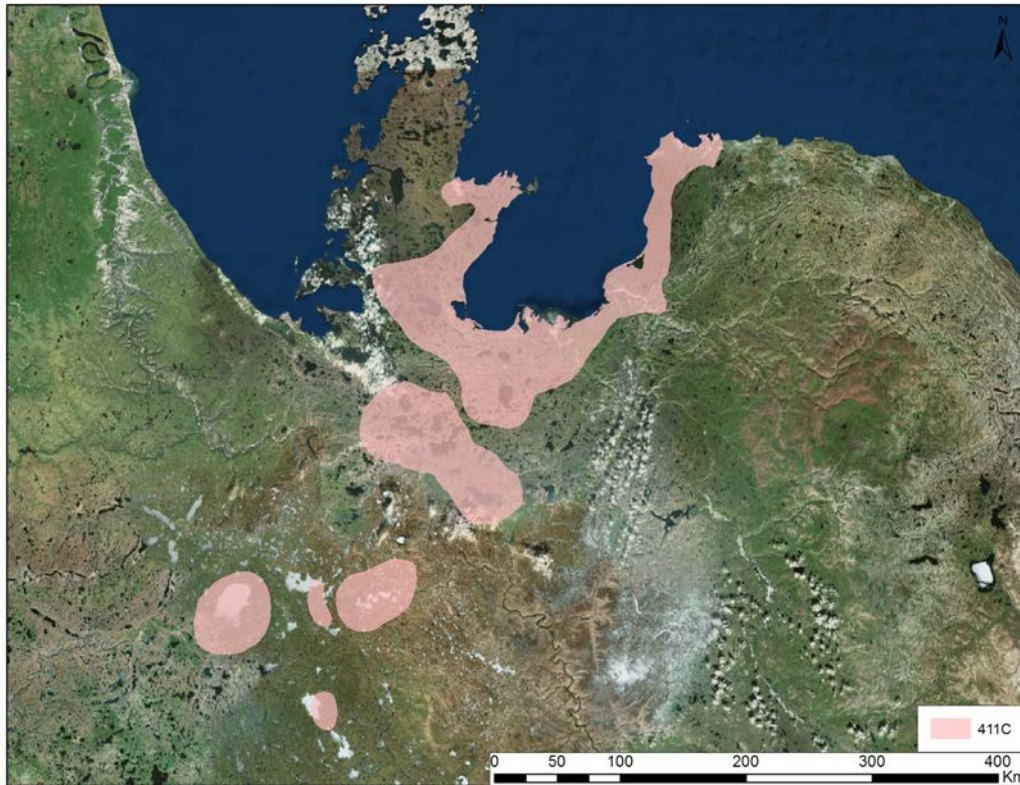
Annual sea lift.

Helicopter re-supply at North Warning DND Site.

Community Working Group Concerns

Need to share beluga resources collectively with other users.

Disturbance of belugas by helicopters during the re-supplying of the North Warning DND site.

SITE NO. 411C BERRY HARVESTING AREAS

Map 14. 411C Berry Harvesting Areas

Identified By

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

Private 7(1)a and 7(1)b lands within the Inuvialuit Settlement Region.

Description

Southeast portion of Parry Peninsula, south of Paulatuk, east along the private lands to Pearce Point.

Importance of the Site to the Community of Paulatuk

Subsistence harvesting of berries.

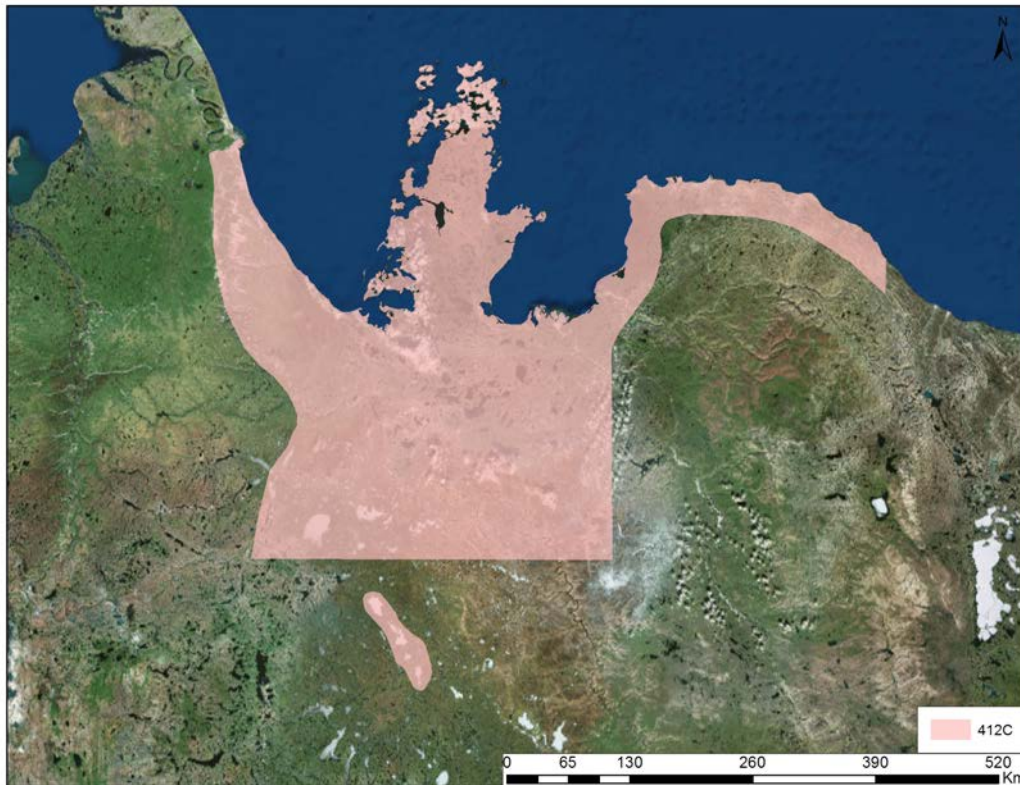
Overlap with Other Special Designated Areas within the Paulatuk Planning Area

- Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)
- Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
- Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
- Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
- Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)

Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Hornaday River (Site no. 426E)
Pearce Point Historic Site (Site no. 427C)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

SITE NO. 412C WINTER CARIBOU HARVESTING AREAS

Map 15. Site 412C Winter Caribou Harvesting Areas

Identified By

Paulatuk Community Conservation Plan Working Group

Land Management Category

C

Ownership

Private 7(1)b lands and Crown lands within the ISR.

Description

Cape Parry, west to the mouth of the Horton River, following southward along the west side of the Horton River, to the south side of Tadenet Lake, east to the Horton River, northeast along the coast to the Nunavut border.

Importance of the Site to the Community of Paulatuk

Subsistence harvesting of caribou during the winter.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)

Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)

Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)

Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Tuktut Nogait National Park (Site no. 423E)
Hornaday River (Site no. 426E)
Pearce Point Historic Site (Site no. 427C)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)
Cape Bathurst Caribou Core Calving Grounds (Site no. 731D)

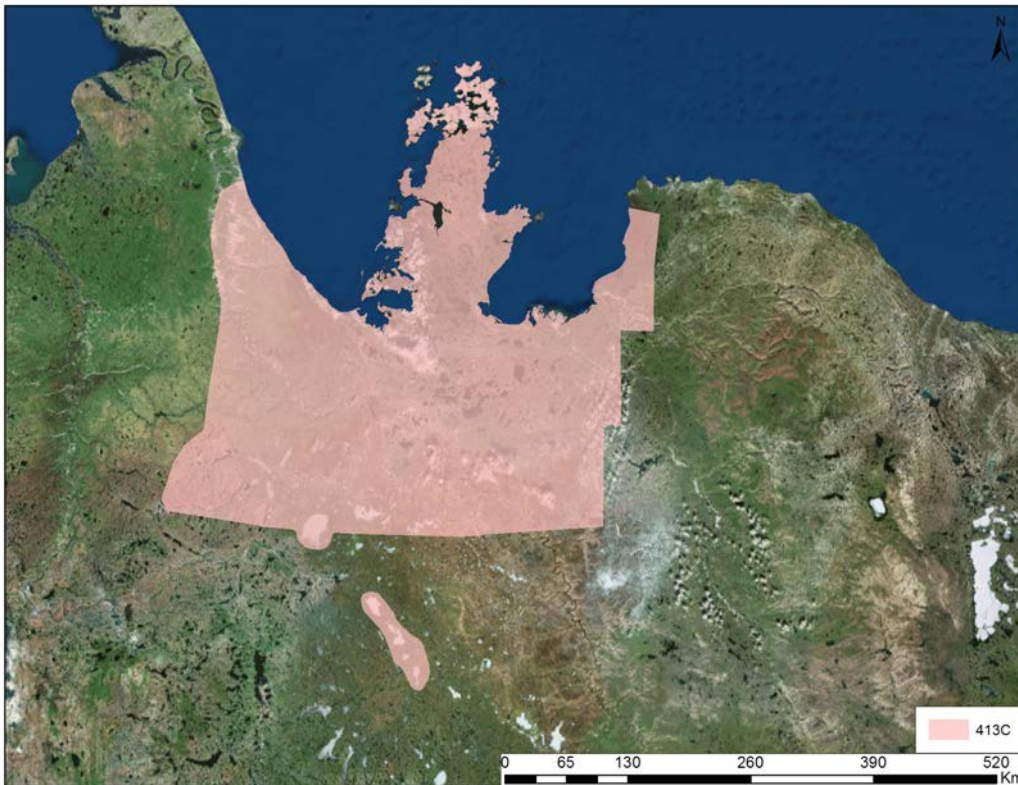
Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

Community Working Group Concerns

Possible disturbance of caribou by potential mining development.

SITE NO. 413C WINTER MUSKOX HARVESTING AREAS



Map 16. Site 413C Winter Muskox Harvesting Areas.

Identified By

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

Private 7(1)a and 7(1)b lands, and Crown lands within the ISR.

Description

Cape Parry, west to the mouth of the Horton River, following southward along the west side of the Horton River, to the south side of Tadenet Lake, east to the Horton River, northeast to Brock Lagoon.

Importance of the Site to the Community of Paulatuk

Subsistence and sports hunting of muskox.

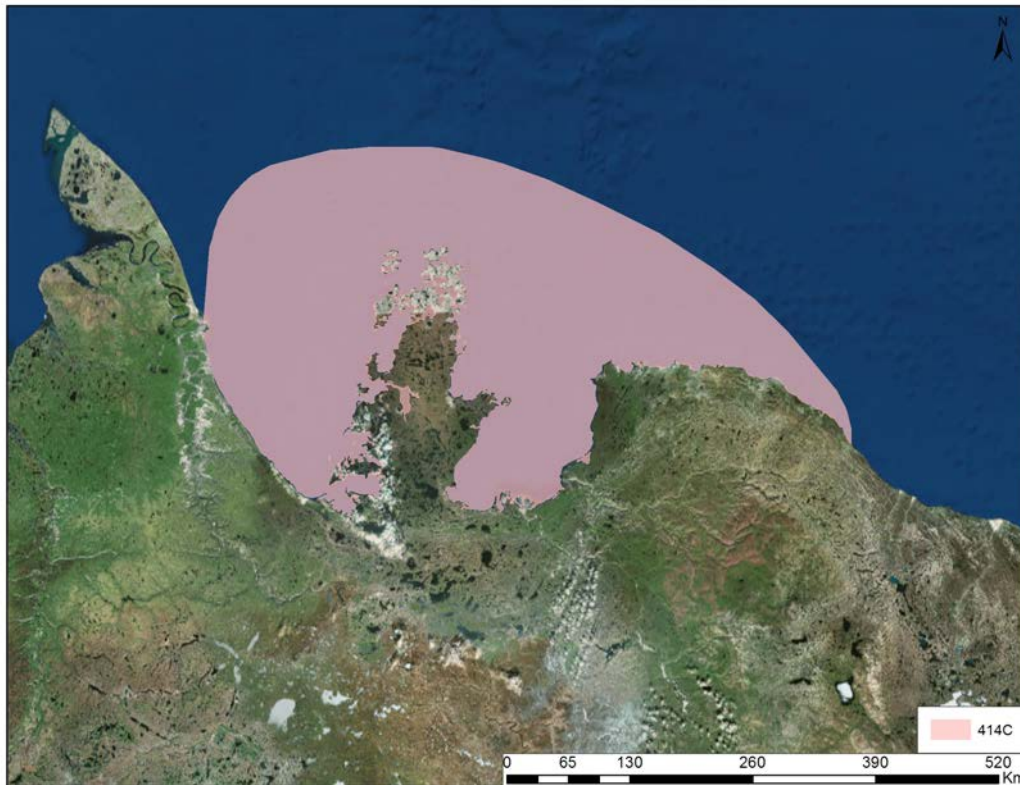
Overlap with Other Special Designated Areas within the Paulatuk Planning Area

- Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)
- Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
- Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)
- Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
- Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)

Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)
Hornaday River (Site no. 426E)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)
Cape Bathurst Caribou Core Calving Grounds (Site no. 731D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

SITE NO. 414C WINTER POLAR BEAR & SEAL HARVESTING AREAS

Map 17. Site 414C Winter Polar Bear & Seal Harvesting Areas

Identified By

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

7(1)b and offshore (Crown)

Description

Includes the nearshore and offshore waters of Franklin Bay and Darnley Bay, east to the west side of Clinton point.

Importance of the Site to the Community of Paulatuk

Subsistence and sports hunting of polar bears from December 1 to May 31.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)

Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)

Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)

Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)

Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)

Beluga Management Zone 1B (Site no. 418E)

Parry Peninsula and Offshore Islands (Site no. 419C)

Franklin Bay, Darnley Bay, Amundsen Gulf-Offshore (Site no. 420C)
Horton and Brock Rivers (Site no. 421D)
Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)
Hornaday River (Site no. 426E)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

Potential for offshore drilling.

Overlapping Military, Transportation and Tourism Interests and Activities

Tanker traffic.

Community Working Group Concerns

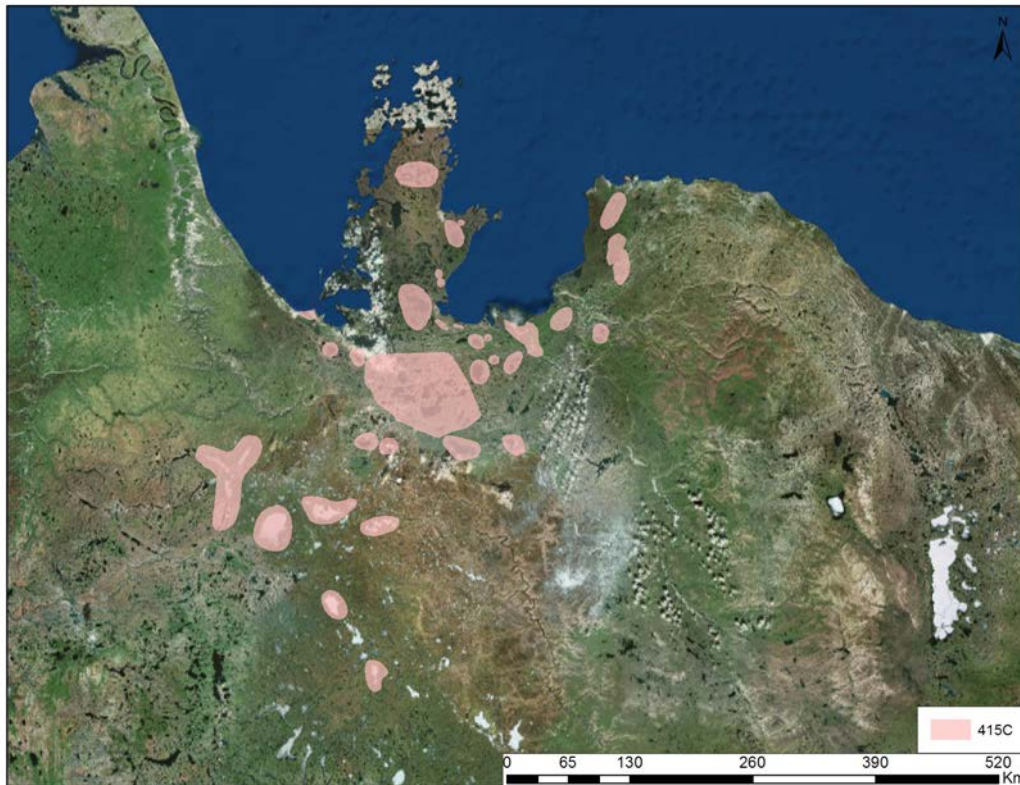
Possible disturbance of polar bear denning areas due to tanker traffic.

Potential disturbance of seal habitat due to offshore drilling.

Impacts of global warming on ice formation.

Community Working Group Recommendations

ENR, CWS and DFO should monitor effect of global warming on polar bear and seal habitat and advise Paulatuk of the expected effects. Paulatuk harvesters are the first to witness the impacts of climate change and resource managers should utilize their traditional ecological knowledge when making management decisions.

SITE NO. 415C WINTER FISH HARVESTING AREAS

Map 18. Site 415C Winter Fish Harvesting Areas

Identified By

Paulatuk Community Conservation Plan Working Group

Management Category

C

Ownership

Freshwater lakes within Private 7(1)a and 7(1)b lands and Crown Lands within the Inuvialuit Settlement Region.

Description

Various freshwater lakes within the planning area.

Importance of the Site to the Community of Paulatuk

Subsistence harvesting of char, whitefish, lake trout, loche and cisco.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

- Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)
- Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
- Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
- Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
- Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)

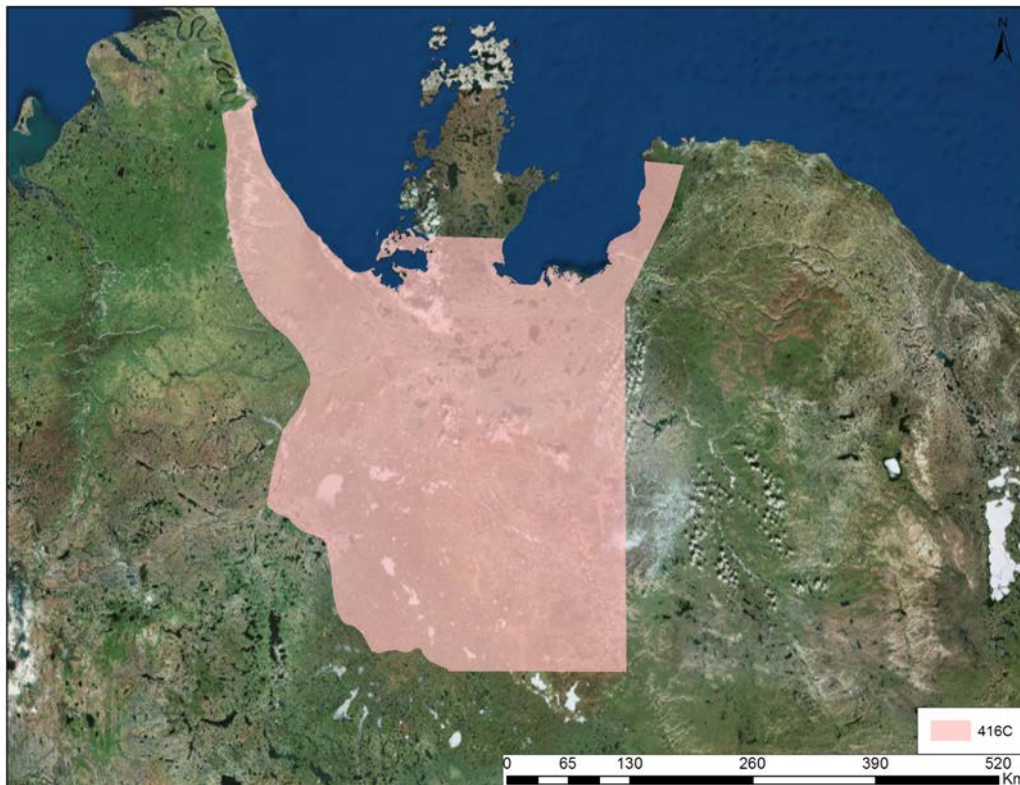
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Tuktut Nogait National Park (Site no. 423E)
Hornaday River (Site no. 426E)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

Community Working Group Recommendations

See recommendations in the current Paulatuk Char Management Plan.

SITE NO. 416C WINTER WOLF HARVESTING AREAS

Map 19. Site 416C Winter Wolf Harvesting Areas

Identified By

Paulatuk Community Conservation Plan

Management Category

C

Ownership

Private 7(1)a and 7(1)b lands, and Crown Lands within the ISR.

Description

From Tom Cod Bay at Parry Peninsula, west to the mouth of the Horton River, following the west side of the Horton River, south to the ISR boundary, northeast to the mouth of the Hornaday River, east past house point to Albert bay area.

Importance of the Site to the Community of Paulatuk

Subsistence harvesting of wolves.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)

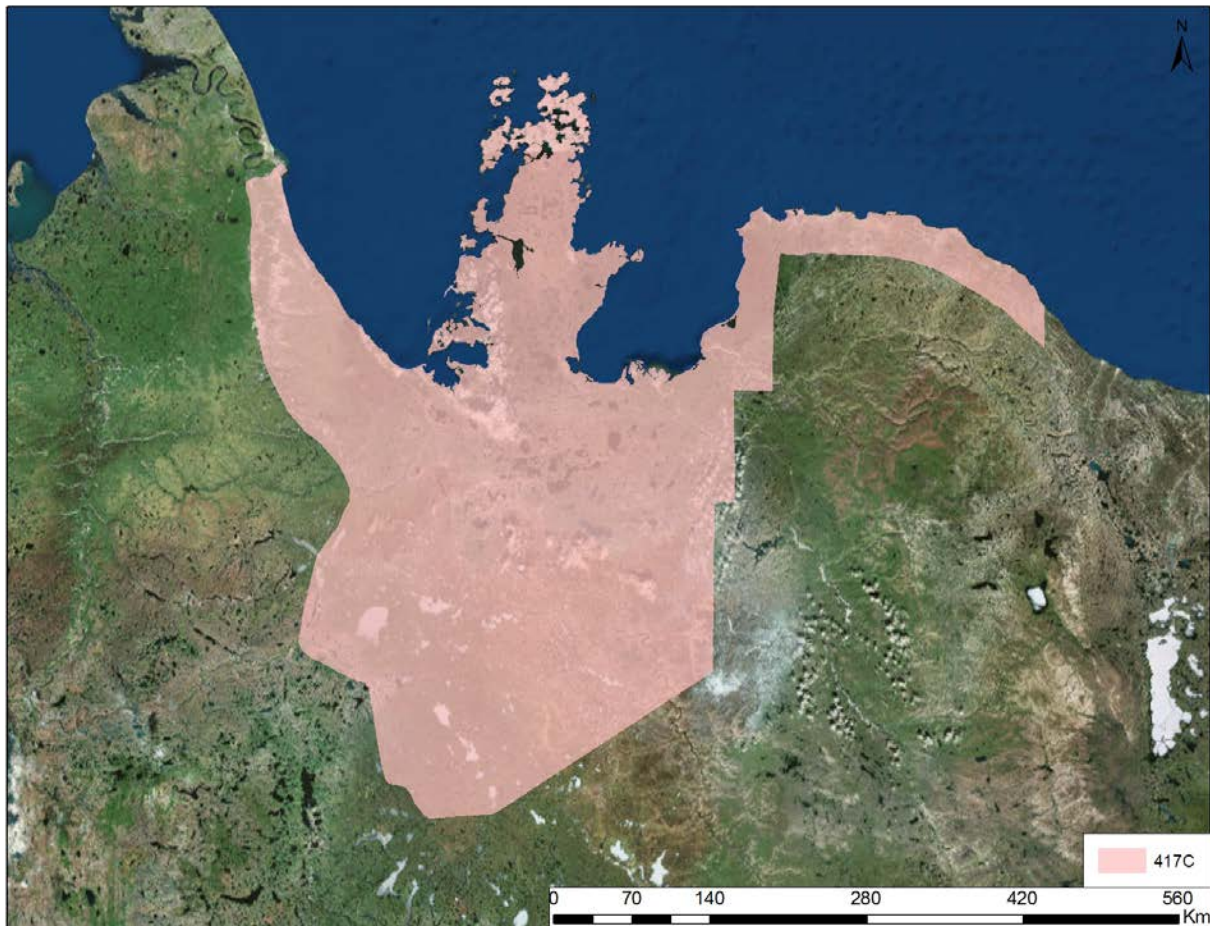
Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)

Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)

Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)
Hornaday River (Site no. 426E)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)
Cape Bathurst Caribou Core Calving Grounds (Site no. 731D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

SITE NO. 417C WINTER WOLVERINE HARVESTING AREAS

Map 20. Site 417C Winter Wolverine Harvesting Areas

Identified By

Paulatuk Community Conservation Plan

Management Category

C

Ownership

Private 7(1)a and 7(1)b lands, and Crown Lands within the ISR.

Description

Parry Peninsula, west to the mouth of the Horton River, south along the west side of the Horton River, to the south side of Ewariege Lake, the east side following the edge of Tuktut Nogait National Park to the Nunavut border.

Importance of the Site to the Community of Paulatuk

Subsistence harvesting of wolverines. Hunting occurs October to mid April.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)
Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Tuktut Nogait National Park (Site no. 423E)
Hornaday River (Site no. 426E)
Pearce Point Historic Site (Site no. 427C)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)
Cape Bathurst Caribou Core Calving Grounds (Site no. 731D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

SITE NO. 418E BELUGA MANAGEMENT ZONE 1B

Map 21. Site 418E Beluga Management Zone 1B

Identified By

FJMC and the Paulatuk Hunters and Trappers Committee

Management Category

E

Ownership

Crown waters within the Inuvialuit Settlement Region.

Description

Encircles Parry Peninsula and includes Darnley Bay, to Brock Lagoon.

Importance of Site to the Community of Paulatuk

This zone includes areas where beluga are occasionally harvested by residents of Paulatuk and Holman, and where residents of Sachs Harbour have shown interest in hunting beluga in the future.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)

Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)

Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)

Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)

Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)

Parry Peninsula and Offshore Islands (Site no. 419C)

Franklin Bay, Darnley Bay, Amundsen Gulf-Offshore (Site no. 420C)

Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)

Hornaday River (Site no. 426E)

Overlapping Nonrenewable Resource Interests and Activities

Mineral exploration is occurring in the area.

Community Working Group Recommendations

Guidelines for Zone 1b (as defined in the Beluga Management Plan):

In the review of any development proposal Zone 1 is to be considered a Protected Area according to the guidelines described in the Inuvialuit Renewable Resource Conservation and Management Plan.

The oil and gas industry should not be permitted to explore for resources within Zone 1 waters nor to produce hydrocarbons or construct/operate any type of facility.

No mining activities (e.g. gravel removal) should be permitted from break-up until 7 September.

Development activities such as hydro-electric developments, even if located outside of Zone 1 should be evaluated for their potential deleterious effects on water quality and quantity, or on the stability and integrity of ice in Zone 1a waters.

All shipping activities (including dredging) should be confined to designated routes and areas. Passage through or close to Zone 1 outside of designated routes, even if it's the shortest route, should be avoided from break-up to 15 August.

No port development should be allowed within or on the shores of any Zone 1 waters.

It is recommended that parties proposing industrial development and government agencies evaluating development proposals and other parties interested in development within the zone should seek the advice of the HTC's. To ensure the protection of the beluga resource and harvest, HTC's should be consulted regarding any licenses, permits or operating procedures approved for activities within the zones.

Commercial fishing proposals for Zone 1 should be evaluated and regulated with regard to beluga food species.

- That the Working Group re-discuss the management category of Zone 1B with the FJMC.
- Extend Zone 1B from the south end of Franklin Bay, westward to include the mouth of the Horton River.

SITE NO. 419C PARRY PENINSULA AND OFFSHORE ISLANDS

Map 22. Site 419C Parry Peninsula and Offshore Islands

Identified By

Paulatuk Community Working Group

Management Category

C

Ownership

Private 7(1)(b) lands within the Inuvialuit Settlement Region.

Description

The site includes the offshore islands and all of the Parry Peninsula south to an approximate boundary extending from the southern shore of Langton Bay on the west side of the Peninsula to Argo Bay on the east side. The site is made up of three areas: Cape Parry Islands, Bennett Point and Parry Peninsula - Fish Lake.

Importance of the Site to the Community of Paulatuk

Important habitat for a variety of wildlife. The Cape Parry Islands and Bennett Point are important nesting areas for waterfowl including eiders, gulls, brant and Canada geese.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)

Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)
 Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
 Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
 Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
 Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
 Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
 Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
 Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)
 Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
 Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
 Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
 Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
 Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
 Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
 Winter Wolverine Harvesting Areas (Site no. 417C)
 Beluga Management Zone 1B (Site no. 418E)
 Franklin Bay, Darnley Bay, Amundsen Gulf-Offshore (Site no. 420C)
 Cape Parry Migratory Bird Sanctuary (Site no. 422D)
 Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)

Overlapping Nonrenewable Resource Interests and Activities

None.

Overlapping Military, Transportation and Tourism Interests and Activities

Shipping and community resupply.

Sport hunting for polar bear takes place offshore of the peninsula.

Community Working Group Concerns

The Paulatuk Community Working Group is concerned that future tanker and ice breaker traffic and oil/gas development will have a negative impact on nesting waterfowl, polar bear denning and the Inuvialuit subsistence way of life.

Community Working Group Recommendations

1. ILA should restrict land use activities from November 1 to March 31 when polar bears are denning and from May 1 to June 30.
2. Canadian Coast Guard should pursue mechanisms to restrict ship, tanker and ice breaker traffic through Amundsen Gulf from November 1 to June 30.
3. One agency should have the overall responsibility for the offshore to avoid the shifting of responsibilities. Paulatuk will work with the WMAC (NWT), FJMC, IGC, CWS and DFO to determine what agency should have this responsibility.
4. ILA and ENR should include measures to protect polar bear dens through permits issued in the areas.

SITE NO. 420C FRANKLIN BAY, DARNLEY BAY, AMUNDSEN GULF – OFFSHORE



Map 23. Site 420C Franklin Bay, Darnley Bay, Amundsen Gulf Offshore

Identified By

Paulatuk Community Working Group and DFO

Management Category

C

Ownership

Crown lands within the Inuvialuit Settlement Region.

Description

The site extends offshore from Cape Bathurst, east to the ISR boundary. It includes Franklin Bay, Darnley Bay, and extends north into Amundsen Gulf for 150 km (93 mi).

Importance of the Site to the Community of Paulatuk

Important habitat for a variety of wildlife. Amundsen Gulf-west is an important pupping area for bearded and ringed seals. Franklin Bay is an important habitat for beluga and bowhead whales and ringed and bearded seals. Amundsen Gulf and tip of Darnley Bay provides a main migration route for beluga whales. The area from the Horton River to Tinney Point is used throughout the year for hunting, fishing and trapping by the people of Paulatuk.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)
Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)

Overlapping Nonrenewable Resource Interests and Activities

None.

Overlapping Military, Transportation and Tourism Interests and Activities

Possible future tanker, ship and ice breaker traffic.

Shipping and community resupply.

Sport hunting takes place in Amundsen Gulf-west November to March.

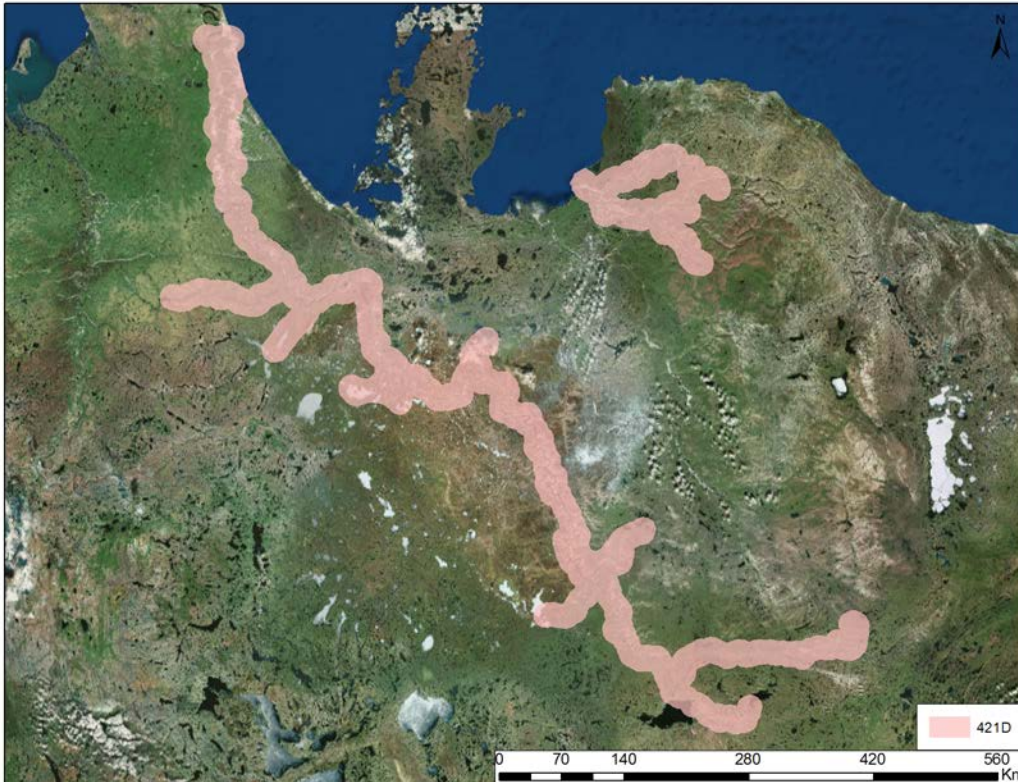
Community Working Group Concerns

The Paulatuk Community Working Group is concerned that future tanker and ice breaker traffic and oil/gas development activities will have a negative impact on the wildlife in the area and on the Inuvialuit subsistence way of life. If tanker, ice breaker, or oil and gas activities become a concern, these concerns should be addressed immediately.

Community Working Group Recommendations

Canadian Coast Guard should pursue mechanisms to restrict ship, tanker and ice breaker traffic through Amundsen Gulf from November 1 to June 30.

Paulatuk HTC should be consulted to assess timing of research and development projects with respect to potential wildlife concerns.

SITE NO. 421D HORTON AND BROCK RIVERS**Map 24. Site 421D Horton and Brock Rivers****Identified By**

Paulatuk Community Working Group

Management Category

D

Ownership

Private 7(1)(a), 7(1)(b) and Crown lands within the Inuvialuit Settlement Region.

Description

The site is made up of two rivers: Horton and Brock. The Horton River is northwest of Paulatuk. The Brock River is northeast of Paulatuk.

Importance of the Site to the Community of Paulatuk

Important habitat for a variety of wildlife. The residents of Paulatuk use the rivers extensively for fishing, hunting, trapping and recreational activities. Department of Fisheries and Oceans had allotted a commercial quota for arctic char, but the Paulatuk Hunters and Trappers Committee closed the fishery when a significant decline in the fish population was discovered. The Community Working Group would like the Brock River developed as a sightseeing area because the area has great tourism potential. Tuktoyaktuk also has interests in the Horton River area as stipulated by the Tuktoyaktuk HTC.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)
Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Tuktut Nogait National Park (Site no. 423E)
Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)
Cape Bathurst Caribou Core Calving Grounds (Site no. 731D)

Overlapping Nonrenewable Resource Interests and Activities

None.

Overlapping Military, Transportation and Tourism Interests and Activities

Limited sport fishing on the three rivers.

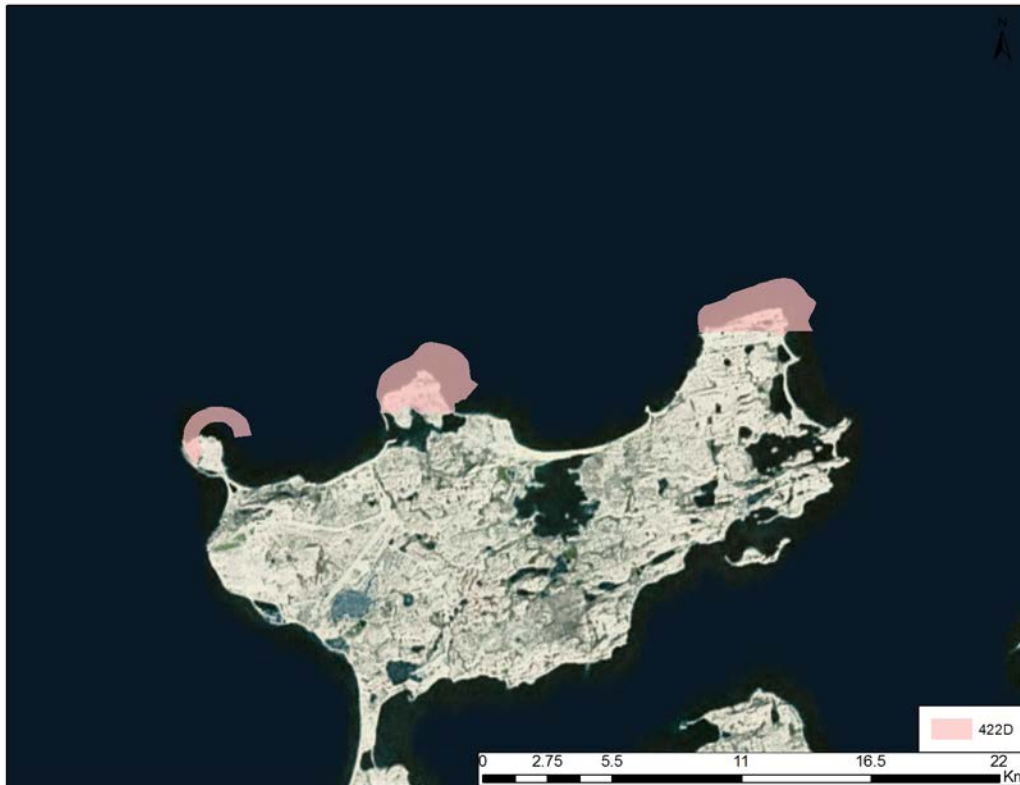
Recreational rafting and kayaking during the summer months on the Horton River.

Community Working Group Concerns

Water levels have been fluctuating drastically on the Hornaday and Brock rivers in recent years. The working group is concerned with the impacts this may be having on the fish populations and subsistence harvesting activities.

Community Working Group Recommendations

1. Water levels should be monitored in order to determine the cause of these fluctuations.
2. FJMC should restrict sport fishing on these rivers from June to September.
3. All tourists should be registered with the Paulatuk HTC before accessing these rivers.

SITE NO. 422D CAPE PARRY MIGRATORY BIRD SANCTUARY**Map 25. Site 422D Cape Parry Migratory Birth Sanctuary****Identified By**

Canadian Wildlife Service

Management Category

D

Legislatively protected under Migratory Birds Convention Act.

Ownership

Private 7(1)(b) lands within the Inuvialuit Settlement Region.

Description

Situated on the northern tip at Cape Parry.

Importance of the Site to the Community of Paulatuk

Only nesting thick-billed murre colony in western Canadian Arctic. Offshore staging area for thousands of king eider, common eider, mergansers and pintails.

Birds present during only part of the year - breeding season is May to August. Nesting habitat is coastal cliffs.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

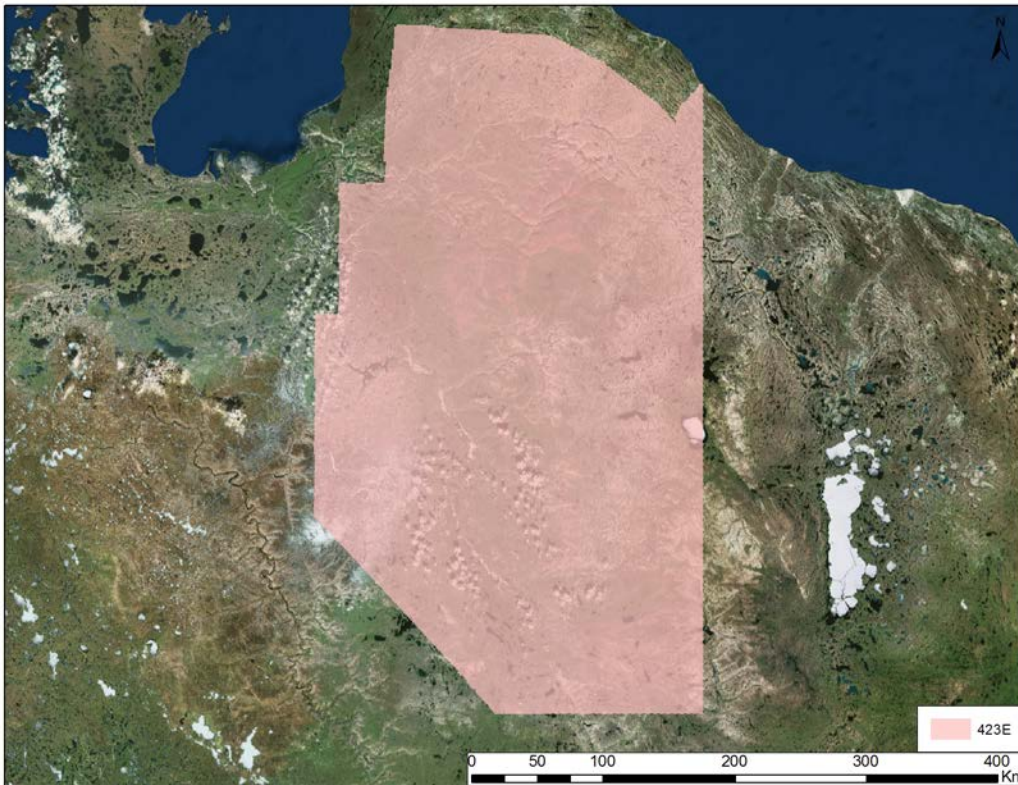
Tuktut Nogait National Park (Site 422D)

Overlapping Nonrenewable Resource Interests and Activities

None.

Overlapping Military, Transportation and Tourism Interests and Activities

North Warning DND site. Shipping traffic nearby.

SITE NO. 423E TUKTUT NOGAI NATIONAL PARK**Map 26. Tukut Nogait National Park****Identified By**

The Community of Paulatuk and Parks Canada

Management Category

E

Ownership

Crown lands within the Inuvialuit Settlement Region.

Description

This park is located 40 km (25 mi) east of Paulatuk, and covers 16,340 km² (6,307 mi²). It protects an area representative of the Tundra Hills Natural Region.

Importance of the Site to the Community of Paulatuk

Calving and post-calving ground of Bluenose-West Caribou Herd.

One of the highest densities of nesting falcons, hawks in the Canadian Arctic.

Grizzly bear habitat.

Important char habitat on the Hornaday River downstream of La Ronciere Falls.

Significant archaeological sites.

High ecotourism values including wilderness, wildlife viewing, hiking, canoeing/kayaking, etc.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Horton and Brock Rivers (Site no. 421D)
Hornaday River (Site no. 426E)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration west of the Park.

Overlapping Military, Transportation and Tourism Interests and Activities

Potential for tourism activities (see above).

Community Concerns

Any concerns are dealt with through the Tuktut Nogait National Park Management Board.

Tuktut Nogait National Park Management Board: The Board advises the Minister of Canadian Heritage, and other ministers as appropriate, on all aspects of Park planning, operation and management, and on the means of accomplishing the Park's purposes as set out in the Tuktut Nogait Agreement. Research priorities associated with the park have been developed collaboratively with a wide range of parties, and the Board has now recommended Interim Management Guidelines to the Minister. The Board and Parks Canada expect a Management Plan for Tuktut Nogait to be developed in 2003.

SITE NO. 424C COASTAL AREAS OF PARRY PENINSULA, FRANKLIN BAY, DARNLEY BAY

Map 27. Site 424C Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay

Identified By

Department of Fisheries and Oceans

Management Category

C

Ownership

Crown lands and waters within the Inuvialuit Settlement Region.

Description

Waters bordering the coast of the Paulatuk Planning Area for a distance of 3 km (2 mi) offshore.

Importance of the Site to the Community of Paulatuk

Arctic cod, capelin and sand lance throughout the site. Saffron cod in large numbers near Cape Parry. Large numbers of arctic cisco in Franklin Bay and Darnley Bay, which are food for ringed seals, beluga and arctic char. Feeding anadromous char from rivers in Franklin Bay and Darnley Bay.

Beluga feeding.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)

Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)

Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Parry Peninsula and Offshore Islands (Site no. 419C)
Horton and Brock Rivers (Site no. 421D)
Hornaday River (Site no. 426E)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration within this area.

Overlapping Military, Transportation and Tourism Interests and Activities

Shipping traffic.

Community Working Group Concerns

Potential oil spills from shipping transportation in the area.

SITE NO. 425B MAINLAND FRESHWATER AREAS**Identified By**

Department of Fisheries and Oceans

Management Category

B

Ownership

Private 7(1)(a) and 7(1)(b) lands and crown lands within the Inuvialuit Settlement Region.

Description

All freshwater lakes in the Planning Area, excluding Spring Fish Harvesting Area (Site 402C) and Hornaday River (Site 426E).

Importance of the Site to the Community of Paulatuk

Support resident populations of whitefish, ciscoes, land-locked char, lake herring, loche, lake trout, northern pike, and some arctic grayling.

Brock River - migratory anadromous arctic char.

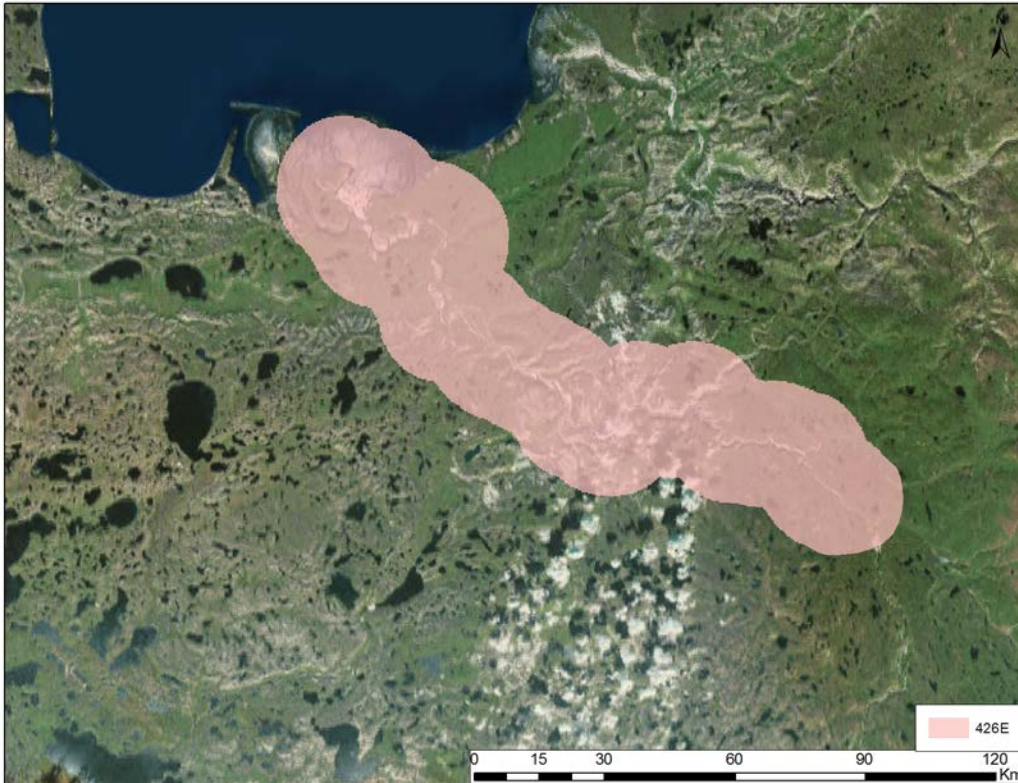
Roscoe River - anadromous arctic char in lower 20-25 km (12.4 - 15.5 mi).

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration west of the National Park.

Community Working Group Recommendations

See recommendations in the current Paulatuk Char Management Plan, for Rummy and Seven Islands Lakes and First Creek.

SITE NO. 426E HORNADAY RIVER**Map 28. Site 426E Hornaday River****Identified By**

DFO, Paulatuk Hunters and Trappers Committee, and the FJMC

Management Category

E

Ownership

Private 7(1)(a) lands and Crown lands within the Inuvialuit Settlement Region.

Description

Mouth of Hornaday River, including the estuary, to La Ronciere Falls.

Importance of the Site for the Community of Paulatuk

Lower 45 km (28 mi.) used by anadromous arctic char for spawning, nursery and overwintering. Fished commercially from 1968 until 1987, when it was closed because of declining stocks.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

- Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)
- Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
- Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)
- Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
- Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)

Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Beluga Management Zone 1B (Site no. 418E)
Tuktut Nogait National Park (Site no. 423E)
Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)
Bluenose-West Caribou Core Calving and Post-Calving Grounds (Site no. 428D)

Overlapping Nonrenewable Resource Interests and Activities

Potential for mineral exploration west of Tuktut Nogait National Park.

Overlapping Military, Transportation and Tourism Interests and Activities

Tuktut Nogait National Park.

Community Working Group Recommendations

See recommendations in the current Paulatuk Char Management Plan.

SITE NO. 427C PEARCE POINT HISTORIC LOCATION



Map 29. Site 427C Pearce Point Historic Location

Identified By

Paulatuk Community Working Group

Management Category

C

Ownership

Private 7(1)b lands.

Description

Situated on a jut of land between Cape Lyon and House Point, on the coast of Amundsen Gulf.

Importance of the Site to the Community of Paulatuk

A former RCMP post from the 1930s now locally owned by a harvester.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
 Spring Polar Bear/Seal Harvesting Areas (Site no. 403C)
 Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
 Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
 Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
 Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)

Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Polar Bear & Seal Harvesting Areas - Paulatuk (Site no. 414C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)

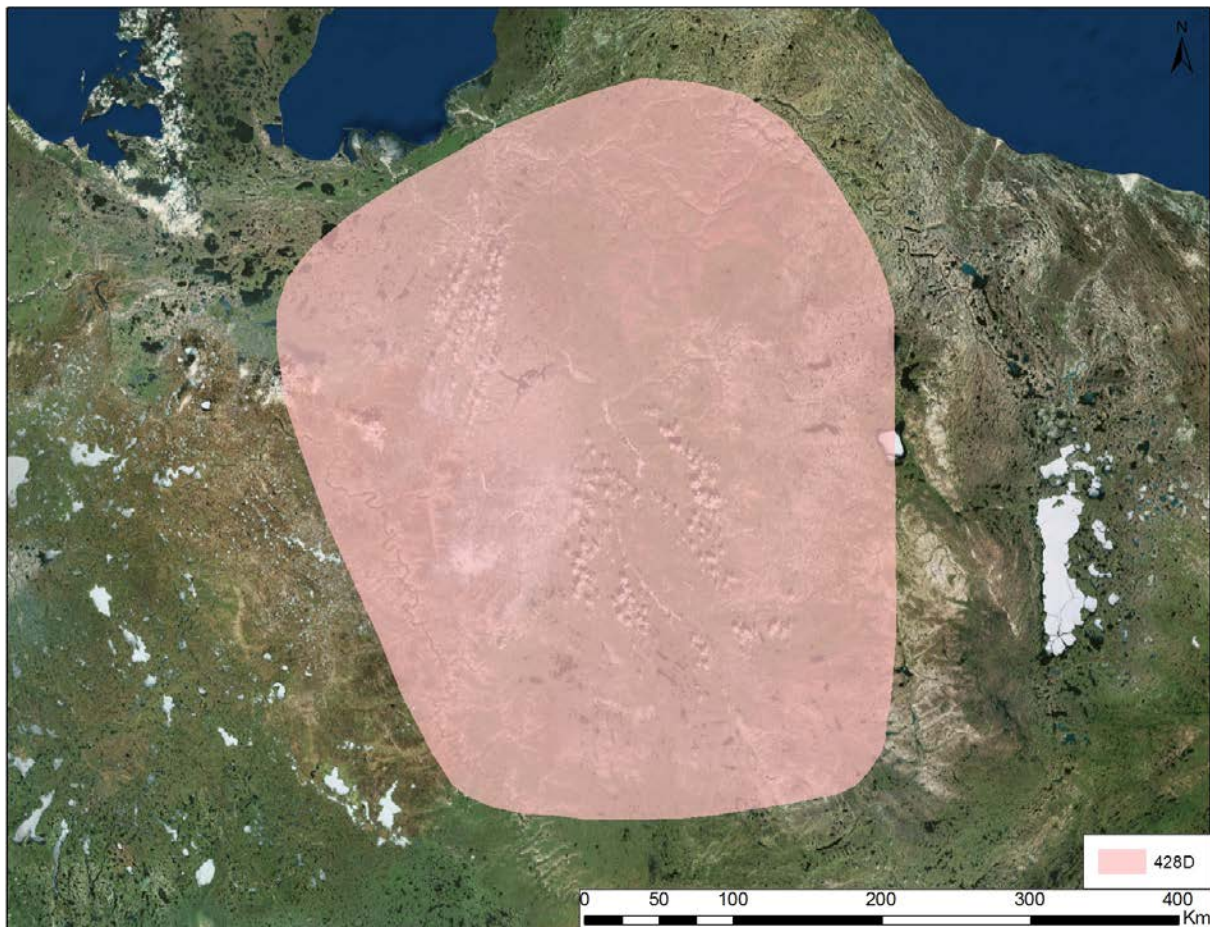
Overlapping Nonrenewable Resource Interests and Activities

None.

Community Working Group Recommendations

See recommendations in the current Paulatuk Char Management Plan.

SITE NO. 428D **BLUENOSE-WEST CARIBOU CORE CALVING AND POST- CALVING GROUNDS**



Map 30. Site 428D Bluenose-West Caribou Core Calving and Post Calving Grounds

Identified By

Paulatuk Working Groups

Management Category

D

Ownership

Private 7(1)(a) and 7(1)(b) lands and Crown lands within the Inuvialuit Settlement Region.

Description

Southeast of Paulatuk, encompassing most of the Hornaday River, the southern end of the Horton River, to the southern and eastern boundary of the ISR.

Importance of the Site to the Community of Paulatuk

Core and post-calving grounds of the Bluenose caribou herd.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)
Spring Fish Harvesting Area - Paulatuk (Site no. 402C)
Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)
Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)
Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
Summer/Fall Caribou Harvesting Area - Paulatuk (Site no. 407C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Fish Harvesting Areas - Paulatuk (Site no. 409C)
Summer/Fall Berry Harvesting Areas - Paulatuk (Site no. 411C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Fish Harvesting Areas - Paulatuk (Site no. 415C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Horton and Brock Rivers (Site no. 421D)
Tuktut Nogait National Park (Site no. 423E)
Hornaday River (Site no. 426E)

Overlapping Nonrenewable Resource Interests and Activities

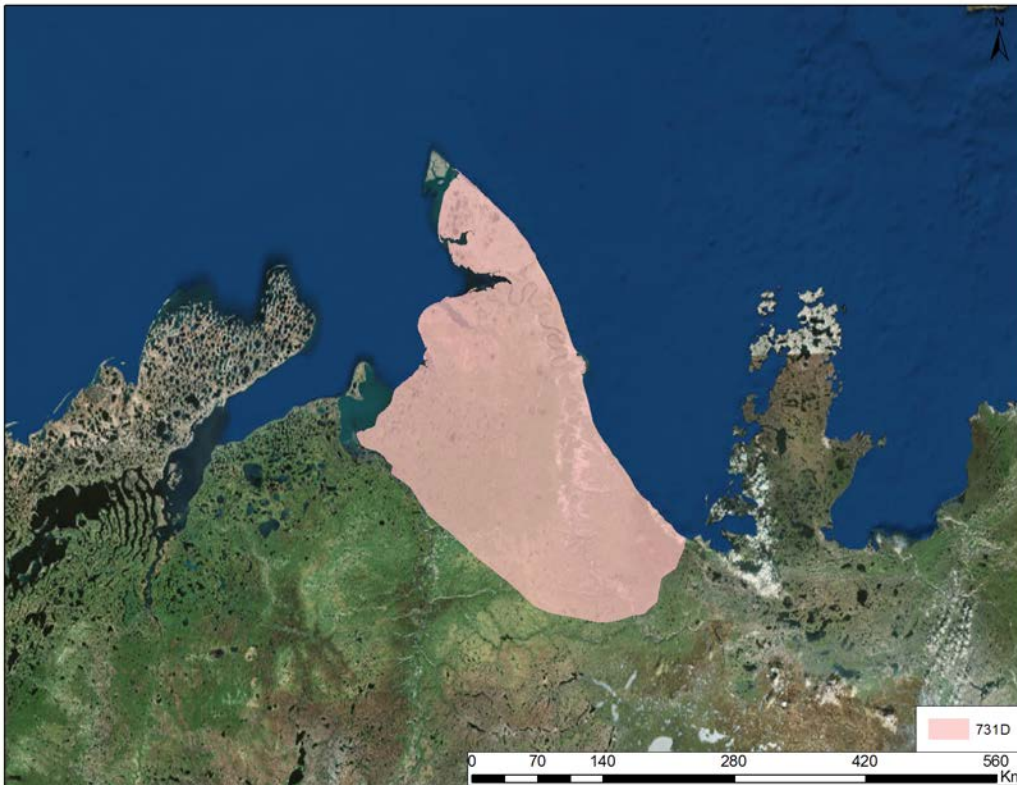
Potential for mineral exploration west of Tuktut Nogait National Park.

Community Working Group Concerns

The Community Working Group is concerned that future non-renewable resource development and exploration would have negative impact on the caribou calving grounds and summer range, and the fish species found in the area.

Community Working Group Recommendations

All regulatory agencies must take appropriate mitigation measures to protect caribou from disturbances during the calving period.

SITE 731D**CAPE BATHURST CARIBOU CORE CALVING AND POST-CALVING GROUNDS**

Map 31. Site 731D Cape Bathurst Caribou Core Calving and Post Calving Grounds

Identified By

Tuktoyaktuk and Paulatuk Working Groups

Management Category

D

Ownership

Private 7(1)(a) and 7(1)(b) lands in the ISR.

Description

Situated on the Cape Bathurst Peninsula, with the Anderson River representing the western boundary, and the mouth of the Horton River representing the eastern boundary and extending south through Coal Creek.

Importance of the Site to the Community of Paulatuk

Core and post-calving grounds of the Cape Bathurst caribou herd.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Caribou Harvesting Areas - Paulatuk (Site no. 401C)

Spring Grizzly Bear Harvesting Areas - Paulatuk (Site no. 404C)

Spring Muskox Harvesting Areas - Paulatuk (Site no. 405C)

Spring Wolf Harvesting Areas - Paulatuk (Site no. 406C)
Summer/Fall Grizzly Bear Harvesting Areas - Paulatuk (Site no. 408C)
Summer/Fall Beluga Whale Harvesting Areas - Paulatuk (Site no. 410C)
Winter Caribou Harvesting Areas - Paulatuk (Site no. 412C)
Winter Muskox Harvesting Areas - Paulatuk (Site no. 413C)
Winter Wolf Harvesting Areas - Paulatuk (Site no. 416C)
Winter Wolverine Harvesting Areas (Site no. 417C)
Horton and Brock Rivers (Site no. 421D)
Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site no. 424C)

Overlapping Nonrenewable Resource Interests and Activities

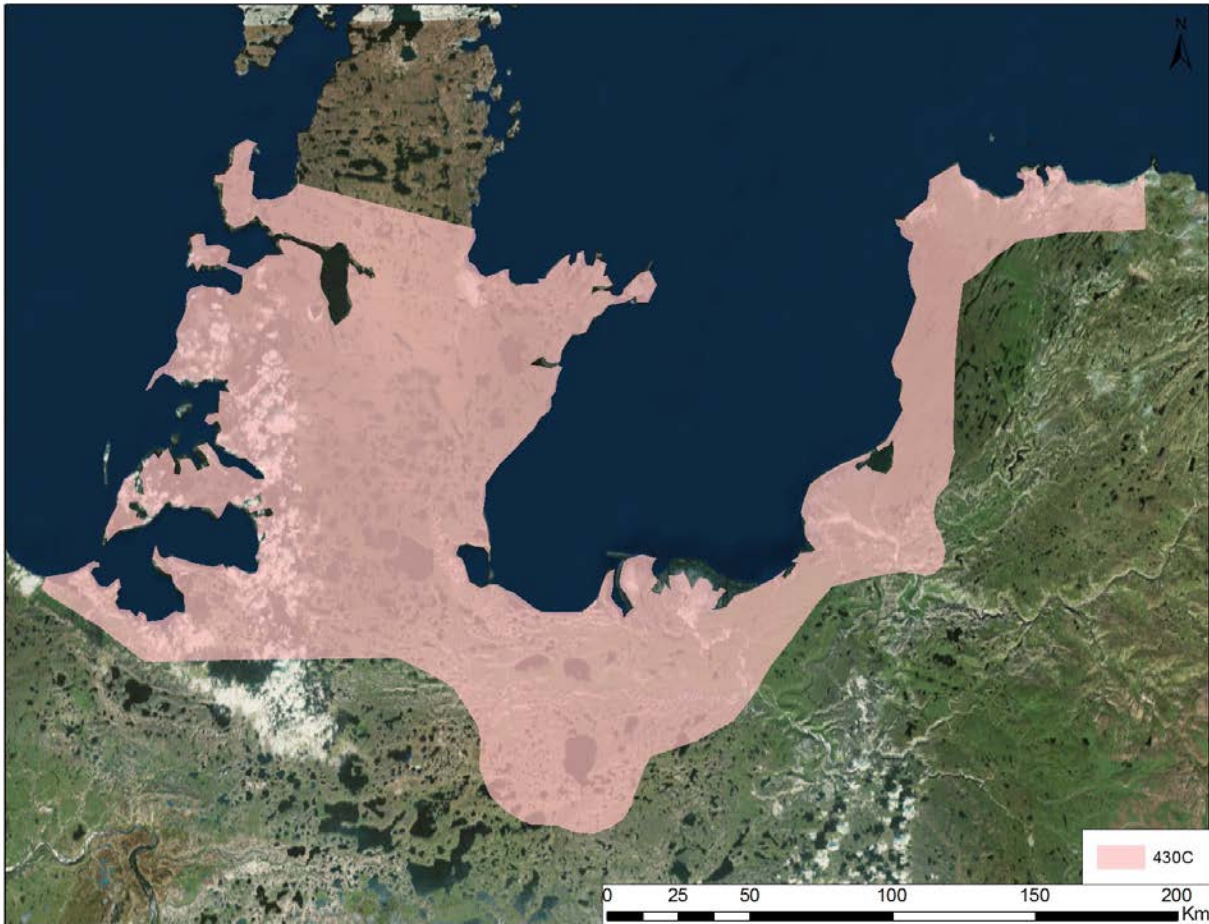
Mineral exploration activity is occurring west of Tukturnogait National Park. Aeromagnetic surveys have been conducted and core sampling is planned for more specific sites.

Community Working Group Concerns

The Community Working Group is concerned that future non-renewable resource development and exploration would have negative impact on the caribou calving grounds and summer ranges.

Community Working Group Recommendations

All regulatory agencies must take appropriate mitigation measures to protect caribou from disturbances during the calving period.

SITE NO. 430C SPRING / FALL GOOSE HARVESTING AREA

Map 32. Site 430C Spring/Fall Goose Harvesting Area

Identified By

Paulatuk Working Groups

Management Category

C

Ownership

Private 7(1)(a) and 7(1)(b) lands in the ISR.

Description

Extends south from Letty Harbour Lakes on the Parry Peninsula to Biname Lake west to McDonald Lake and east along the coast to House Point area inland.

Importance of the Site to the Community of Paulatuk

These are areas that community members have travelled to and harvested migratory birds with their families for generations and as such are very culturally important to the community.

Overlap with Other Special Designated Areas within the Paulatuk Planning Area

Spring Polar Bear / Seal Harvesting Area (Site No. 403C)
Spring Grizzly Bear Harvesting Area (Site No. 404C)
Spring Muskox Harvesting Area (Site No. 405C)
Spring Wolf Harvesting Area (Site No. 406C)
Summer / Fall Caribou Harvesting Area (Site No. 407C)
Summer / Fall Grizzly Bear Harvesting Area (Site No. 408C)
Summer / Fall Fish Harvesting Area (Site No. 409C)
Summer / Fall Beluga Whale Harvesting Area (Site No. 410C)
Summer / Fall Berry Harvesting Area (Site No. 411C)
Winter Muskox Harvesting Area (Site No. 413C)
Winter Polar Bear / Seal Harvesting Area (Site No. 414C)
Winter Wolf Harvesting Area (Site No. 416C)
Winter Wolverine Harvesting Area (Site No. 417C)
Parry Peninsula and Offshore Islands (Site No. 419C)
Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site No. 424C)
Spring Caribou Harvesting Area (Site No. 401C)

Overlapping Nonrenewable Resource Interests and Activities

No current activity in the area, however there is interest in mineral exploration.

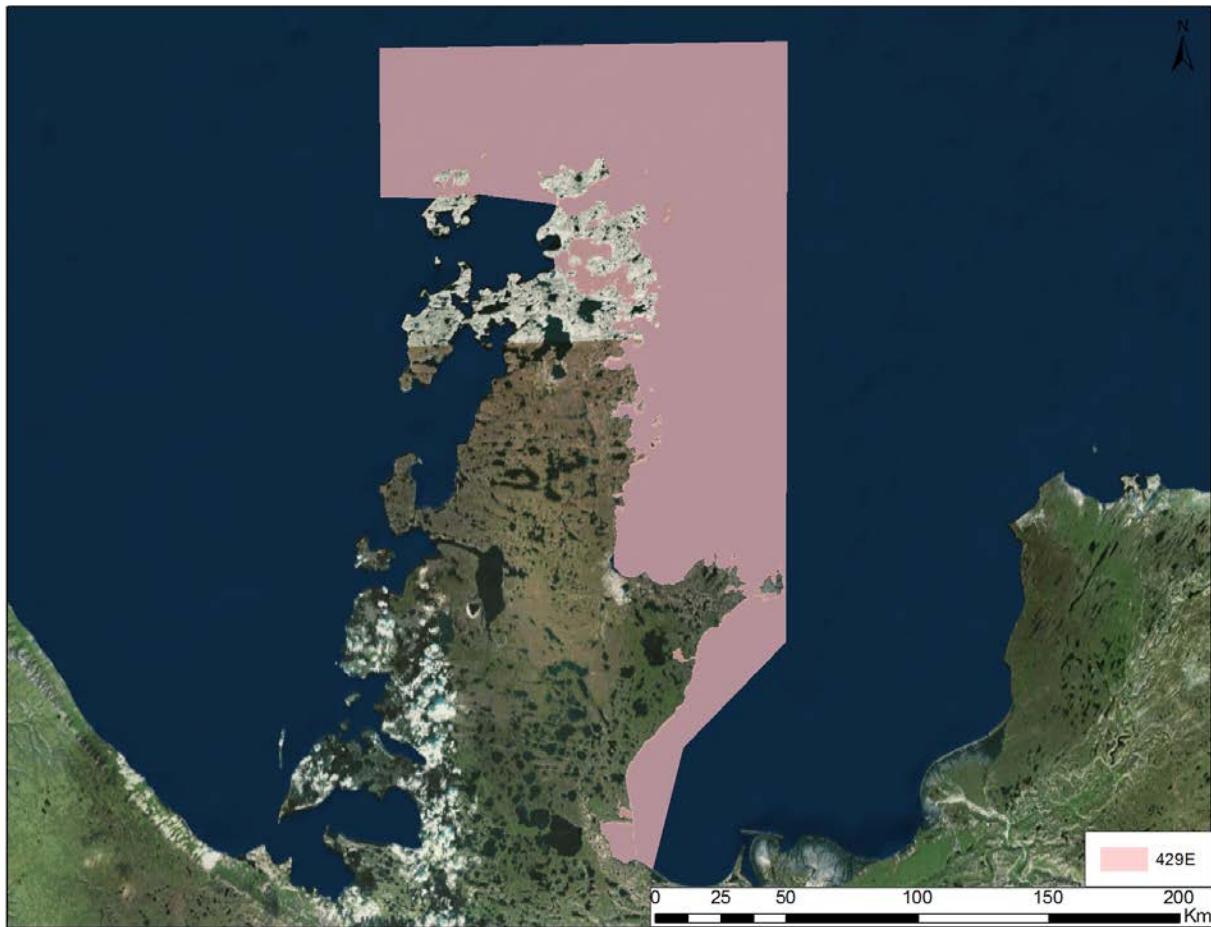
Community Working Group Concerns

The working group is concerned that future aircraft (especially helicopter) activity in the region will disrupt migratory bird hunting areas and distribution.
Climate change is threatening the length of the hunting season, geese are coming earlier, not staying as long and laying eggs earlier.

Community Working Group Recommendations

The ANAOI will be designated in summer 2016 and should be included within the overlapping areas section once this is finalized.

SITE NO. 429E ANGUNIAQVIA NIQIYUAM AREA OF INTEREST (ANAOI)



Map 33. Site 429E Anguniaqvia Niqiyuam Area of Interest (ANAOI)

Identified By

Paulatuk HTC, Fisheries and Oceans Canada, Fisheries Joint Management Committee

Management Category

E

Ownership

Private 7(1)(a) and 7(1)(b) lands in the ISR.

Description

The Anguniaqvia niqiyuam Area of Interest (ANAOI) is located in Darnley Bay, near Paulatuk, NWT, and is a highly productive area for a variety of species. It provides important habitat for Arctic Char, beluga whales, polar bears, ringed seals and a variety of birds. In fact, it is home to the only thick billed murre colony in the western Canadian Arctic. Many species such as char and beluga use Darnley Bay for feeding. This region is also culturally important to the Inuvialuit people who use the area for subsistence fishing and hunting.

The two conservation objectives for the ANAOI are:

- “To maintain the integrity of the marine environment offshore of the Cape Parry Migratory Bird Sanctuary so that it is productive and allows for higher trophic level feeding by ensuring that the Cape Parry polynyas and associated sea-ice habitat, and the role of key prey species (e.g., Arctic Cod), are not disrupted by human activities.”
- “To maintain the habitat to support populations of key species” (i.e. beluga, char, ringed and bearded seals)

The ANAOI was designated as a Marine Protected Area (MPA) in November 2016.

Draft General Prohibitions for ANMPA

No person shall:

- (a) Disturb, damage, destroy in the Marine Protected Area, or remove from the Area, any living marine organism or any part of its habitat; or
- (b) Carry out any activity in the Marine Protected Area – including depositing, discharging or dumping any substance, or causing any substance to be deposited, discharged or dumped – that is likely to result in the disturbance, damage, destruction or removal of a living marine organism or any part of its habitat.

Draft Exceptions to General Prohibitions for ANMPA

1. **Emergency, Safety, Security and Sovereignty:** Any activity carried out for the purpose of public safety, national defence, national security, or law enforcement or carried out in response to an emergency would be allowed to occur within the MPA (e.g. emergency search and rescue, response to shipping or aircraft accidents, national security requirements).
2. **Fishing:** Fishing carried out in accordance with the *Inuvialuit Final Agreement* or other applicable land claims agreements would continue to be able to occur in the MPA. Fishing in accordance with the *Fisheries Act* and its regulations would also be allowed in the MPA if it is carried out in a manner that does not adversely impact the Conservation Objectives of the MPA.
3. **Vessel Travel:** Navigation and shipping activities would be allowed to be carried out within the MPA in accordance with applicable Canadian law.
4. **Dredging:** Dredging would be allowed to occur in the MPA if:
 - a. A recommendation has been made with respect to the proposed activity in accordance with the *Inuvialuit Final Agreement* and the activity is authorized by a competent government authority and all applicable approvals/authorizations have been issued;
 - b. It is for the purpose of community resupply of goods; and
 - c. The activity is carried out in accordance with applicable Canadian law.
5. **Marine scientific research and commercial marine tourism:** Marine scientific research, MPA management activities (including monitoring), habitat restoration, remediation, commercial marine tourism, and/or educational activities would be allowed within the MPA if:
 - a. The proponent submits an activity plan to DFO and the activity plan is approved by the Minister of DFO based on conditions set out in the MPA regulations that are intended to ensure that these activities do not compromise the achievement of the Conservation Objectives of the MPA.
 - b. When applicable, a recommendation has been made with respect to the proposed activity in accordance with the *Inuvialuit Final Agreement* and the activity has been authorized by a competent government authority and all applicable authorizations and

permits have been obtained.

The activity plan would have to be submitted within a set number of days in advance of the day on which the proposed activity is intended to be carried out and would be required to include the information set out in the regulations that would enable a risk evaluation of environmental effects of the proposed activity on the Conservation Objectives of the MPA. The Minister of DFO would be required to approve an activity plan within a set period of time after receiving the activity plan if it meets the conditions outlined in the proposed regulations (e.g., the individual and cumulative environmental effects of the proposed activity, in combination with all other past and current activities being undertaken within the MPA are not likely to result in the damage or destruction of the habitat of any living marine organism within the MPA). The timelines may be revised for special circumstances.

Importance of the Site to the Community of Paulatuk

Summer char, whitefish & beluga harvesting camps located on the coast within the AN AOI. Important habitat for char, beluga, ringed & bearded seals. Potential for community shrimp & crab fishery in the future.

Overlapping Lands of Territorial, National, and International Conservation Interest

Spring Polar Bear / Seal Harvesting Area (Site No. 403C)
 Summer / Fall Fish Harvesting Area (Site No. 409C)
 Summer / Fall Beluga Whale Harvesting Area (Site No. 410C)
 Winter Polar Bear / Seal Harvesting Area (Site No. 414C)
 Beluga Management Plan Zone 1B (Site No. 418E)
 Parry Peninsula and Offshore Islands (Site No. 419C)
 Franklin Bay, Darnley Bay, Amundsen Gulf-Offshore (Site No. 420C)
 Coastal Areas of Parry Peninsula, Franklin Bay, Darnley Bay (Site No. 424C)

Overlapping Nonrenewable Resource Interests and Activities

Once the MPA is finalized there will be no development activity allowed in the waters.

Community Working Group Concerns

Potential for unregulated tourism activity to interfere with community harvesting in the future.

Potential oil spills from shipping transportation in the area.

There is an active DEW line site at Cape Parry. There is large debris and old equipment still on the shore and in the ocean and the main fueling dock is within the AN AOI.

Helicopter activity in the area may be impacting the marine mammal migration and behavior.

Community Working Group Recommendations

The working group recommends that tourism guidelines be created once the MPA is finalized. The working group recommends that the MPA regulations be strictly enforced especially when it comes to shipping traffic.

The working group recommends that a study be done to determine the impacts of the DEW line debris and that work be done to reclaim the site to its natural state (Aqpaq Point). The Working group recommends that all resupply and fueling activities at the DEW Line be closely monitored.

The working group recommends that more near shore baseline data collection be completed for this area (Aqpaq Point).

The working group recommends that air traffic over the AN AOI be regulated and strictly enforced.

References

- Darnley Bay Area of Interest (AOI). DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2011/009.
- DFO. 2011. Proceedings of the Central and Arctic Regional Science Advisory Process on the Identification of Conservation Objectives and Boundary Delineation for the Darnley Bay Area of Interest; December 8, 2010.
- DFO. 2012. Socio–Economic Assessment of the Paulatuk Area of Interest. Fisheries and Oceans Canada: viii + 32p.
- IBA Canada. 2013. Important Bird Areas of Canada - Cape Parry, Paulatuk, NWT. <http://www.ibacanada.com/site.jsp?siteID=NT041&lang=EN>.
- KAVIK-AXYS Inc. 2012. Traditional and Local Knowledge Workshop for the Paulatuk Area of Interest. Prepared for Fisheries and Oceans Canada. Unpublished.

4.1.1 General Land Use Guidelines

These recommended guidelines relate to all lands in the Inuvialuit Community Planning Area for Paulatuk:

1. The Inuvialuit Community, the WMAC (NWT), FJMC, IGC, EISC, EIRB and ILA will rely on their procedures, the Paulatuk Community Conservation Plan and the provisions of the IFA to ensure the protection of the Paulatuk community harvesting areas that are within the ISR.
2. All Inuvialuit and non-Inuvialuit bodies with an interest in the planning area acknowledge and actively support the Paulatuk Community Conservation Plan, associated land use designations and recommendations.
3. The Community supports the maintenance of the bird sanctuaries.
4. The protective status of all other candidate areas (areas identified by non-Inuvialuit) for protection be resolved by having the government (e.g. Minister of the Environment, Minister of Fisheries and Oceans and GNWT and YTG, Minister of Renewable Resources) demonstrate to the satisfaction of the Community, WMAC (NWT), FJMC and IGC that such areas are necessary.
5. All regulatory agencies support the priority land uses as outlined in the Paulatuk Community Conservation Plan.
6. Individuals wishing to build a camp will abide by any camp-building bylaw specified by the HTC. That bylaw is presented in points (a) to (g) following:
 - (a) Contact your local HTC for information before applying.
 - (b) Secure lease for the land you want to build on through ILA.
 - (c) No one may build within a five mile radius of another camp already established, unless they have written permission from the person of the established camp to build a cabin, and must respect their wishes to the fullest degree.
 - (d) People must respect already established traplines and must not hunt within a 1.6 km (1 mi) radius of an established camp.
 - (e) When apply to build, the person must apply on his own and not through someone else.
 - (f) Jiggling areas used for many years for the purpose of catching fish in the fall time should be respected.
7. The permission granting authority for camps on private land is ILA. ILA has adopted a practice to canvass for comments from existing cabin owners within an 8 km (5 mi) radius and will base a decision for a permit on the merits of each case and not on an HTC bylaw. Reasonable concerns or comments will be considered.
8. The Community, HTC, WMAC (NWT) and FJMC will encourage the people of Paulatuk and others using and visiting the area to keep the land clean and to bring back any garbage for disposal at the local dump or other appropriate location (as determined by the community).

The Prince of Wales Northern Heritage Centre and DoL should implement protection of heritage resources through a strengthened *Heritage Resources Act*.

4.2 INUVIALUIT COMMUNITY PROCESS FOR LAND USE DECISIONS

The community land use decision making process involves a number of steps which are described below and also presented graphically in Appendix H.

1. The Community Corporation and Hunters and Trappers Committee receive notification of development proposals from the Inuvialuit Land Administration, DoL and/or the EISC.¹
2. The Community Corporation and HTC hold separate meetings to discuss the proposal.

3. The Community Corporation and HTC review relevant sections of the Community Conservation Plan with careful consideration of land use categories (Sections 4.0, 4.1) and independently pass on their concerns to the ILA and/or EISC.
4. The HTC and Community Corporation formally work together to develop a consensus or community- based land use decision in special cases.
5. The HTC and Community Corporation will hold a secret ballot when considered necessary.
6. The Community Corporation and HTC review relevant sections of the Community Conservation Plan with careful consideration of land use categories (Sections 4.0, 4.1).
7. The ILA or EISC (see Section 4.4) review the responses and decide whether to grant approval (where the ILA is involved) or to refer the project to the Environmental Impact Review Board (for further public review) or to the appropriate government department for permitting (where the EISC is involved).

¹ See recommendation 4.4.1(5)

4.3 CUMULATIVE IMPACTS MANAGEMENT

Cumulative impacts occur when changes to the environment, both good and bad, add to one another over time. Several small impacts may appear unimportant when they occur but, if continued, may result in a large impact over time. Successful management of cumulative impacts involves the following three steps:

- Clearly identify the type of environment and lifestyle you want in the future;
- Monitoring environmental change;
- Appropriate decision making.

In order to better account for incremental or gradual losses of wildlife habitat resulting from changes in land use over time, the Community, as represented by the HTC and Paulatuk Community Corporation, will re- designate areas of remaining habitat in a given management category (Category A, B, C, D) to a more protective category (Category B, C, D, E) in proportion to the amount of effective habitat lost or affected by the authorized land use.

For example, if a proposed land use has negative effects on five percent of Category A wildlife habitat, then five percent (or any other amount) of what Category A habitat remains would be re-designated Category B or higher until such time as the impact of the land use has stopped and the land restored to its original ecological productivity.

This process acknowledges the principle that as wildlife habitat is lost, that which remains becomes more valuable and should require greater public support to alter. Re-designation will be carried out coincident with the two-year conservation plan review by the Community Working Group, and the complete review by all stakeholders every eight years.

4.4 ENVIRONMENTAL SCREENING & REVIEW

Review of development proposals within the Inuvialuit Settlement Region is carried out in a cooperative manner and primarily involves the Environmental Impact Screening Committee (EISC), the Environmental Impact Review Board (EIRB) and Inuvialuit Land Administration (ILA) (as described in Section 1.2 and Appendices F and G). These committees routinely seek the advice and comments of the community in reaching their decisions.

At the present time, the ILA is able to specify enforceable conditions for attachment to ILA Land Use Permits on Inuvialuit 7.1(a), 7.1(b) Lands. On Crown lands within the Inuvialuit Settlement Region non- Inuvialuit bodies, such as DoL, are responsible for attaching conditions to land use permits. ENR issues wildlife research permits and tourism licenses. The Prince of Wales Northern Heritage Centre issues permits for archaeological research. Within a national park, Parks Canada issues permits.

4.4.1 Recommendations

1. The consideration of the Community Conservation Plans be mandatory for ILA & DoL when making land use decisions.
2. DoL and ILA work together wherever possible to develop a consistent set of general land use procedures.
3. The Community recommends that the ILA require developers to indicate the extent to which relevant elements of their development are at variance or consistent with Section 19, (Conduct of Operations in ILA Rules and Procedures) (Appendix I of this plan).

Environmental Screening Procedures - The HTC, IGC, WMAC (NWT), WMAC (NS) and FJMC will periodically review the Environmental Impact Screening Committee, Environmental Impact Review Board and Inuvialuit Land Administration operating rules/guidelines and procedures, and offer advice with regard to any changes that may be required to help improve environmental screening and review.

1. Regulatory bodies with jurisdiction over lands within the ISR should work with the Community to ensure that developers are bound to adequately address the Community's environmental concerns. These regulatory bodies should also work with the Community to identify practical state-of-the-art mitigation and reclamation techniques and to involve local people as environmental inspectors (see Section 5.0).
2. Reclamation Plans - As part of land use permits, reclamation plans should be agreed to and a costing mechanism (e.g. bond, promissory note) established to ensure compliance.
3. Consultation - The Community should be consulted on all land use activities in the Paulatuk Planning Area.
4. Revoke Permits - Where there is a violation of land use permit conditions deemed serious by the PHTC or Paulatuk Community Corporation, the permitting agency (e.g. ILA, DoL) shall investigate immediately and take appropriate action, which with HTC support, may include revoking permits.
5. Education - The Environmental Impact Screening Committee, Environmental Impact Review Board, and Inuvialuit Land Administration should increase community awareness of their mandates and activities (see also Section 5.0).
6. The Inuvialuit Community in Paulatuk will:
 - (a) Carefully review all land use proposals and only give their support to land use activities where they are consistent with the Paulatuk Community Conservation Plan.
 - (b) Through the HTC, IGC or the IRC, refer any projects on Inuvialuit Land that may be in conflict with the Paulatuk Community Conservation Plan to the environmental screening and review process;
 - (c) Through its HTC, consult with developers on projects proposed within the Paulatuk

Planning Area;

- (d) With the assistance of the IGC, familiarize itself with the terms and conditions of any relevant Wildlife Compensation Agreements prior to signing off by the IGC, HTC and Developer.
 - (e) Through its HTC, advise the EISC and/or ILA of community concerns about development projects in the Paulatuk Planning area;
 - (f) Develop a monitoring system with industry, transportation companies and local tourist operators to determine the numbers, impacts and rate of increase of activity to provide the data for more stringent regulations as required.
7. The HTC will ensure that community harvest data are kept current in order to facilitate development of practical and fair Wildlife Compensation Agreements.

5 EDUCATION, TRAINING AND INFORMATION EXCHANGE

The successful implementation of the Paulatuk Community Conservation Plan will require ongoing efforts to educate, train and exchange information. The community recommends that the WMAC (NWT) and FJMC work with other Inuvialuit and non-Inuvialuit agencies to obtain funding and expertise to fulfill the following initiatives:

- (a) Prepare an educational audio and videotape or tapes on the local ecosystem, the people, conservation practices and the Inuvialuit Final Agreement.
- (b) Organize training for local Inuvialuit in environmental inspection and monitoring as well as proper harvesting techniques.
- (c) Prepare summaries (written summaries and as translated audio tapes) of the Paulatuk Community Conservation Plan suitable for school use and for elders.
- (d) Prepare home education package (for delivery by parents) to convey cultural values, language and conservation.
- (e) Develop and implement a Community Information Program to present and explain the Paulatuk Community Conservation Plan.
- (f) Promote the use of environmentally friendly products and proper handling of hazardous wastes.
- (g) Encourage researchers visiting the area to make presentations to the Community, and to convey the results of their studies.
- (h) Continue to record and convey traditional knowledge of the land, culture, wildlife, and conservation.
- (i) The Community should actively assist with the undertaking of the above initiatives.
- (j) Continue to promote the use of the local language among the young and others with an interest.

6 WILDLIFE MANAGEMENT AND RESEARCH

The Community supports the general wildlife management process as described in the Inuvialuit Renewable Resource Conservation and Management Plan (1988), the IFA. Interested readers are advised to consult both of these documents. Both documents provide for the full consultation and participation of the Community and its representatives in the management process.

Improvements to the system can be made in terms of more use of local knowledge, more community involvement in wildlife research and better communication between the Community, government agencies, researchers and the joint management groups. To that end, the Community has developed preliminary guidelines for wildlife management and conservation, including subsistence and commercial harvesting, tourism and local enjoyment. The Community has incorporated local knowledge and outside expertise in developing a one page conservation summary for each species of concern in the area (Section 6.4).

6.1 GENERAL GUIDELINES

To implement the strategy for wildlife management and research the following steps will be taken:

6.1.1 The Paulatuk HTC will:

- (a) Provide input to the IGC and the joint management groups on wildlife management and research programs in the Planning Area.
- (b) Through the IGC and the joint management groups, inform government agencies of its priorities for wildlife research in the Planning Area.
- (c) Support conservation initiatives for shared migratory species developed by others, where the Inuvialuit bodies with a mandate for wildlife management endorse those initiatives.
- (d) Participate in wildlife research projects in the Paulatuk Planning Area, when they have been consulted and support such projects.
- (e) Discourage the use of aircraft for low level (<610 m) (<2,000 ft.) wildlife spotting at any time unless being done in conjunction with authorized research in order to avoid unnecessary disturbance or harassment of wildlife (see also Section 6.3(c)).
- (f) Monitor the state of the wildlife and habitats in the Planning Area in cooperation with the biologists employed by the Government of the NWT, FJMC, DFO, Parks Canada and DOE and report any concerns to the WMAC (NWT) and FJMC through the HTC and the IGC.
- (g) Regulate Inuvialuit harvesting using bylaws and traditional conservation methods as described in this plan (see Section 6.4), or when this is recommended through community monitoring, by the joint management committees or the IGC.
- (h) Pass a bylaw which provides a strong and positive incentive for trappers to carefully manage their harvest. This bylaw will define individual trapping areas and allow trappers to rotate their harvest within their trapping area from one year to the next. The system to be covered by the bylaw will be biologically and culturally based.
- (i) Keep the joint management bodies informed, through the HTC, of education programs (see Section 5.0), which are needed to increase community awareness of conservation, wildlife management and research.
- (j) Where appropriate, participate in the development and delivery of education programs (see Section 5.0).
- (k) Encourage active participation in implementing the Paulatuk Community Conservation Plan. Membership and privileges associated with membership in the HTC will only be granted where individuals support the plan to the satisfaction of the HTC membership.
- (l) Manage all harvests on a sustained yield basis.

6.1.2 The WMAC (NWT), FJMC and IGC will:

- (a) Assist the Community in obtaining regular monitoring information on water quality and ecosystem integrity. (This is a very high priority within the Community).
- (b) Recommend to the Minister of Environment, the Minister of Fisheries and Oceans and the GNWT that species management plans continue to be developed and implemented for important wildlife populations identified by the Community in the Paulatuk Planning Area, in consultation with the community and joint management groups. These plans should build upon the species conservation summaries presented in Section 6.4.
- (c) Make more use of the media to publicize their activities in the Paulatuk Planning Area.
- (d) Recommend to the Aurora Research Institute of the Northwest Territories, the CWS, the DFO, GNWT and YTG that they continue to work with both groups to develop a consistent process for community consultation on wildlife research and the distribution of research results to the Community (see also Section 5.0). They (FJMC, WMAC (NWT), IGC) will further recommend that as part of their research permit, all researchers in the planning area mail or fax a one page summary of the work undertaken to the HTC, within two weeks of leaving the area.
- (e) Respond to Community initiatives for conservation measures and education programs.
- (f) Develop a consistent set of criteria for establishment of harvest quotas in cooperation with the HTC.

6.1.3 Community, the WMAC (NWT), FJMC and IGC will:

- (a) Support the development of species management plans, when such plans are prepared in consultation with all groups. In the interim, these bodies and the people represented will endorse and follow conservation guidelines provided in the species summaries (Section 6.4).
- (b) Ensure that Inuvialuit are aware that animal numbers typically increase and decrease with the seasons and over the years as part of natural cycles. Ensure that harvesting and management programs consider natural cycles of animal abundance.
- (c) Support proposals for renewable resource development in the Planning Area, when they are consistent with the Principles of the Inuvialuit Final Agreement, the Regional Conservation Plan, and with the Community Conservation Plan.
- (d) Revise the species conservation summaries listed in Section 6.4 during plan review conducted every four years.

6.2 SUBSISTENCE AND COMMERCIAL HARVESTING - GENERAL GUIDELINES

Under the Inuvialuit Final Agreement (Section 14(36)(a)) the Wildlife Management Advisory Council (NWT) is required to determine the total allowable harvest for game to ensure long term resource conservation. The effectiveness of this activity is very dependent on the cooperation of local subsistence harvesters in Paulatuk and those involved in promotion of

commercial wildlife harvesting.

In addition to recommendations and guidelines described elsewhere in this document, the guidelines below will be followed:

- (a) Subsistence harvest and traditional patterns of land use associated with subsistence harvesting will take precedence over commercial harvesting.
- (b) Subsistence and commercial harvesting will be done in a manner consistent with the Paulatuk Community Conservation Plan, specific population goals and conservation measures stated in the species conservation summaries.
- (c) Commercial harvesting of wildlife will be undertaken in a manner developed cooperatively with and endorsed by the FJMC (for crustaceans, fish, seals, whales), WMAC (NWT) (for all other animals) and the GNWT.
- (d) Where a commercial quota is identified and considered consistent with conservation for a given species (for example, caribou) a percentage of tags will be retained to preserve for small scale operations (for example, sport hunting, individual supply to commercial market).
- (e) Harvests will be monitored monthly by the ISR Community-Based Monitoring Program (CBMP) in order to provide information necessary for compensation and resource conservation.
- (f) Well managed commercial fishing will be allowed in the rivers, but is not recommended for the lakes.
- (g) The Community will consider and support the use of alternate harvesting methods (e.g. humane traps, steel shot) where there is a demonstrated need.

6.3 TOURISM GUIDELINES

The Community of Paulatuk believes tourism is a valuable economic activity within the area, that is compatible with conservation and cultural needs, provided it is properly managed. The Community recognizes the need to maintain the environment and cultural lifestyles in order to promote tourism. To do this the Community recommends the following:

- (a) The total number of tourist operators and/or tourists should be restricted in certain areas at certain times of the year (e.g. nesting and molting areas for migratory birds, calving areas, denning areas.)
- (b) The ILA, and ENR will request that all tourist operators (Inuvialuit and non-Inuvialuit) endorse the Paulatuk Community Conservation Plan and follow its recommendations as one of the conditions of operator's license or permit. Licenses may be revoked where operators contravene the recommendations and guidelines of this Plan and the conditions of their permit.
- (c) Aircraft should fly no lower than 1,100 m (3,500 ft.) over a migratory bird sanctuary during times when nesting birds are present.

- (d) Aircraft will not be used to land at sites where concentrations of nesting birds may occur.
- (e) Aircraft will not be used for low level (<610 m) (<2,000 ft.) wildlife spotting at any time unless being done in conjunction with authorized research.
- (f) Wolf dens should be approached no closer than 500 m (547 yd) if wolves are present.
- (g) Tourists and tourist operators should not handle or harass wildlife.
- (h) DoL or ILA, in conjunction with the HTC, should establish a Travel Restricted Area to protect heritage resources when necessary.
- (i) ENR should inform tourist operators of concerns regarding protection of heritage resources when issuing outfitting licenses.
- (j) Tourists and tourist operators shall respect any bylaws passed by the HTC with respect to tourism.

6.4 SPECIES CONSERVATION SUMMARIES

The following Species Conservation Summaries have been prepared by the Community in consultation with the WMAC (NWT), FJMC and IGC. Both local indigenous knowledge and that of others with expertise has been used. General conservation measures are provided in addition to those to be followed in the event of declining wildlife populations. Additional information on important wildlife habitat is contained in the Land Use Section (4.1).

The WMAC (NWT) commissions ENR and CWS to provide updated Species Status Reports on an annual basis for species in the NWT portion of the ISR.

Species Conservation summaries will be updated every two years by the WMAC (NWT), with input from the appropriate agencies. In most cases, precise population or threshold levels remain to be specified. The WMAC (NWT), FJMC, IGC, CWS, GNWT and DFO are encouraged to move forward with species management plans, with priority to species of importance to the Community and which may be impacted by likely developments.

BEAVER (*Castor canadensis*) / KIGIAQ

Biology

Mating occurs in water during late winter (February and March). After spring break-up, 3 to 4 kits are born in the lodge or burrows. One litter is produced per year. Kits mature at 2 years of age or older.

Traditional Use

Furbearer and food to lesser extent.

Important Habitat

Mostly found in tree line area.

Management Plans/Agreements

No management plans specifically for beaver; managed under general hunting and trapping regulations. Draft Co-management Plan for the Fur Industry (2000)

Recent Research

Young, D.A., Kerr, D.S., and M.A. Weber. 1984. Beaver and muskrat investigations: fall 1983. Environmental Management Associates.

Study done by CWS (Vern Hawley) in late 50's, early 60's.

Research Priority

Low.

Population Status

Unknown.

Population Goal

None.

Conservation Measures

- Harvest on a sustainable basis.
- Identify and protect important habitats from disruptive land uses.
- Support HTC bylaw (proposed) on designated trapping areas.

BLACK BEAR (*Ursus americanus*) / AKŁAQ

Biology

The most northern black bear population in Canada occurs in the ISR but their numbers or densities are unknown. Black bears occur in forested areas and den from October to May. Black bear numbers or densities are unknown in the ISR. Breeding peaks in June and July and cubs are born toward end of January, early February. Cubs tend to leave mother in second year of life. Females mature at 3-5 years of age and have an average of 2 cubs per litter every 3 years. Most northern black bear population in Canada occurs in ISR. Black bears may live to 20 years of age though average maximum age about 10. Average weights for females are 40-70 kg (88-154 pounds), and males weigh 60-140 kg (132-308 pounds). While they feed on a wide variety of plants and animals, black bears are primarily herbivorous.

Traditional Use

Furbearer.

Important Habitat

Below the tree line.

Management Plans/Agreements

No management plans specifically for black bears; managed under the *NWT Wildlife Act* and its related regulations”.

Recent Research

Research Priority

Low.

Population Status

Fairly common but at northern extent of range.

Population Goal

Maintain natural densities, adequate supply at present.

Conservation Measures

- Keep camps clean, properly dispose of garbage.
- Identify and protect important habitats from disruptive land uses.
- Reduce bear-people conflict situations and the number of bears destroyed in problem bear situations.

CARIBOU (*Rangifer tarandus*) / TUKTU

Pangniq (bull), Kulavak (cow), Narraq (calf)

Biology

Barren-ground caribou (*Rangifer tarandus groenlandicus*) that occupy the northern portion of the Northwest Territories and western Nunavut, Canada, were considered to be part of the Bluenose herd. Work completed by ENR (formerly RWED) in 1999 indicated that there are three herds within that area; the Cape Bathurst, Bluenose-West, and Bluenose-East caribou herds. Since the reindeer were moved off the Tuktoyaktuk peninsula in 2001 there appears to be another group of caribou calving at the upper end. The degree of hybridization occurring is unknown.



Calving occurs late May or early June; typically a single calf. Cows calve every year if in good condition. Sexual maturity is reached at 2 to 4 years of age. The Porcupine herd winters in high mountains (Richardson, Ogilvie and Barn Mountains), migrate to calving grounds April and May, spend spring and summer on Alaskan and Yukon North Slope, return to wintering grounds September and October, with rut occurring in October. Bluenose-West and Cape Bathurst herds generally winter near or below the treeline east, northeast and southeast of Inuvik, and calve and summer in Brock, Hornaday and Horton River area.

Traditional Use

Highly valued food resource, historically also for clothing and tools.

On the mainland, the Cape Bathurst herd is typically harvested by 5 Inuvialuit and Gwich'in communities. The Bluenose-West herd is harvested by Inuvialuit, Gwich'in, and Sahtu Dene and Metis in 12 communities. In addition, Inuvialuit from Sachs Harbour on Banks Island have historically relied on caribou from the Bluenose-West and Cape Bathurst herds.

Important Habitat

Porcupine Caribou Herd: Coastal plain N.E. Alaska and N.W. Yukon North Slope for calving and insect relief, also Northern Richardson Mountains. Winter habitat in Richardson, Ogilvie and Hart Basins and Eagle Plains/Whitestone River area.

Bluenose-West Caribou Herd: Hornaday, Brock and Horton Rivers area for calving (Tuktut Nogait National Park)

Cape Bathurst Herd: Bathurst peninsula for calving and insect relief; winter habitat northeast of Inuvik.

Tuktoyaktuk Peninsula Herd: north end of Tuktoyaktuk peninsula for calving and insect relief

Management Plans/Agreements

Porcupine:

Canadian (1985) and International (1987) Porcupine Management Agreements in place for the

Porcupine Caribou Herd.
Draft North Yukon Land Use Plan (2009).

Cape Bathurst, Bluenose-West and Tuktoyaktuk Peninsula

Taking Care of Caribou – the Cape Bathurst, Bluenose-West and Bluenose-East Barren Ground Caribou Herds Management Plan (2014)
ACCWM Terms of Reference

GNWT Environment and Natural Resources. 2006. Caribou Forever – Our Heritage, Our Responsibility: A Barren-ground Caribou Management Strategy for the Northwest Territories 2006-2010.

The drafting and implementation of the Bluenose and Porcupine Caribou management plans has involved the cooperation of the various land claim groups and co-management boards in each jurisdiction, thereby reflecting the trans-boundary nature of the herds.

Research Priority

See Porcupine Caribou Strategic Framework
Taking Care of Caribou Management Plan

Population Status

Porcupine:

- approximately 178,000 (1989)**
- approximately 160,000 (1992)**
- approximately 152,000 (1994)**
- approximately 129,000 (1998)**
- approximately 123,000 (2001)**
- 169,000 (95% CI 153,493-184,403) (2010)**
- 197,228 (95%CL 168,667-225,789) (2013)**

Census attempted every year between 2003 and 2009 with no success due to various reasons. Radio collars (conventional and satellite) continue to be monitored to provide calf birth rate, calf survival rate, and adult female survival rates.

Herd	Estimate	95% Confident Intervals	Year
Tuktoyaktuk Peninsula	3,078		2006
	2,752	276	2009
	2,192	178	2012
	1,701		2015
Cape Bathurst	13,476		1986
	12,516	3,504	1987
	19,278	5,397	1992
	11,089	1,756	2000
	2,434	257	2005
	1,821	149	2006
	1534	349	2009
	2,427		2012

	2,259	84	2015
Bluenose-West	88,369	6,899	1986
	106,887	4,655	1987
	112,360	25,566	1992
	76,376	14,347	2000
	20,800	2,040	2005
	18,050	527	2006
	17,897	1,310	2009
	20,465	3,489	2012
	15,268	1369	2015
Bluenose-East	119,584	25,419	2000
	70,081	8,120	2005
	66,754	5,182	2006
	98,600	7,100	2010
	68,295	18,040	2013
	34,223	8,681	2015

Population Goal

Porcupine:

To keep the herd in the green zone, above 115,000 caribou, allowing for enough caribou to meet local demands — see Draft Harvest Management Strategy

Cape Bathurst, Bluenose-West and Tuktoyaktuk Peninsula

Maintain herds within the known natural range of variation.

Conservation Measures

- Support Porcupine Caribou Management Board and Management Plan.
- Support implementation of Porcupine Caribou Harvest Management Plan
- Identify and protect important habitats from disruptive land uses.
- Avoid shooting mature bulls during the rut.
- Do not harvest more than is needed.
- Convey and promote traditional means of using all of each animal harvested, discourage waste of meat.
- Develop cooperative management relationship between the co-management boards of each relevant land claim group through the ACCWM.
- Harvest on sustainable basis, and in manner consistent with recommendations of the management plans and HTC bylaws.
- Support the Barren-ground Caribou Management Strategy

FOXES

RED FOX (*Vulpes vulpes*) / **AUKPILAQTAQ**
ARCTIC FOX (*Alopex lagopus*) / **TIRIGANNIAQ**

Biology

Arctic Fox

Arctic Foxes breed in March and den in April. Females may have from 8 to 20 pups that become active in May, and may stay near den until October. There appears to be a four-year population cycle (likely coincident with cycle in lemmings). Foxes are known to move great distances (e.g. Alaska to Banks Island).



Trevor Lucas

Red Fox

Breed February to April, with 1-13 young, average 5. Family stays together until fall. Sexually mature at approximately 10 months. May live up to 12 years of age. Fur may be various colours (coloured, silver (Marraq), cross (Kaihirutilik)).

Traditional Use

Furbearer.

Important Habitat

Arctic fox are widespread above, often near coastal areas and are widespread below the treeline.

Management Plans/Agreements

No management plans specifically for foxes; managed under general hunting and trapping regulations. Information can be found in Draft Co-management Plan for the Fur Industry (2000).

Research Priority

Low: though there is interest/concern over rabies.

Population Status

Can be highly variable year to year.

Population Goal

Unspecified.

Conservation Measures

- Identify and protect important habitats from disruptive land uses.
- Only trap in season.
- Do not disturb denning foxes.

GRIZZLY BEAR (*Ursus arctos horribilis*) / AKŁAQ

Biology

Grizzly bears in the ISR den from approximately October to April and breed mainly in August to September. On average, females might not begin producing cubs at 5-8 years of age, have 1-3 cubs per litter, and produce a litter every 3-5 years. Grizzly bears are primarily vegetarians, although they will take advantage of any high energy food source available. Some foods and areas may be more important than others from season to season, and from year to year. In the NWT, home range sizes of females average approximately 2000km², whereas males average approximately 7000km², much larger than those reported in other North American populations. Average weight for adult females is 125 kg (276 lb), and 250 kg (551 lbs) for adult males. Bears can live up to 25 years – the oldest aged bear in ISR is 35.

Traditional Use

Furbearer.

Important Habitat

Richardson Mountains, Richards Island, Delta, Major river drainages, eskers and southerly slopes for denning. More sightings on Arctic Islands in recent years.

Management Plans/Agreements

Co-Management Plan for Grizzly Bears in the Inuvialuit Settlement Region, Yukon Territory and Northwest Territories, with Work Plans for the Years 1997/98 to 2001/2002. (WMAC (NWT), 1998)

In 1994, community hunting areas were established for Inuvik and Aklavik and the boundaries of all hunting areas were extended to conform to the ISR boundary in the Yukon and NWT. Grizzly bear bylaws were written for each hunting area in consultation with the affected HTC's and were approved by the WMACs and IGC. Quotas established for entire ISR in 1993-94. Interim quota adjustments were made by WMAC (NWT) and WMAC (NS) based on local knowledge. Work is underway to get new scientific estimates. Quotas are adjusted when new information is available.

Research Priority

Research on grizzly bear populations to provide information to set sustainable harvest quotas and look at impacts of human disturbance. Hair and scat collection at cabins for DNA provides additional information on bears visiting cabins. DNA hair snag grid conducted between Inuvik and Tuktoyaktuk (2013-2014) provided densities in area.

Population Status

In most areas hunters are reporting more grizzly bears. More grizzly bears are being sighted and harvested on the arctic islands indicating an expanding population.

Population Goal

Stable population that can sustain an annual harvest. Research will be used to determine appropriate harvest rate.

Conservation Measures

- Identify and protect important habitats from disruptive land uses.
- Reduce bear-people conflict situations and the number of bears destroyed in problem situations.
- Do not hunt females and cubs.
- Do not hunt bears in or constructing dens.
- Selectively harvest males.
- Harvest on a sustainable basis and in a manner consistent with Management Plan and HTC bylaws.
- Camp assessment and Electric fence program maintained to reduce interactions
- Guidelines for mitigating impacts of development

LYNX (*Lynx canadensis*) / PIQTUQSIRAQ

Biology

Lynx breed in March to May, with young observed June through August. Usually 2 to 6 young are born. Numbers of lynx in area tends to cycle with number of snowshoe hare/rabbits. Local observations indicate that lynx are fat when there are lots of rabbits and thin when rabbits are few. Lynx travel when rabbits are scarce.

Traditional Use

Lynx are highly valued for their fur and as food.

Important Habitat

River valleys and Mackenzie Delta.

Management Plans/Agreements

No management plans specifically for lynx; managed under general hunting and trapping regulations. Information can be found in Draft Co-management Plan for the Fur Industry (2000).

Recent Research

Ongoing pelt measurements.

Ongoing snowshoe hare abundance surveys across NWT.

Carriere, S. 2007. Small mammal survey and hare transect survey in the Northwest Territories – summary report 2006. GNWT, ENR, Yellowknife, NT.

Research Priority

The community would like to know more about what data has already been collected as well as information on:

1. Population status;
2. Movements;
3. Habitat productivity.

Population Status (as indexed by NWT wide pelt sales): Population cycles through highs and lows. Peaks at beginning of decade, lows at centre. Hare abundance surveys undertaken to track changes.

Population Goal

Unspecified.

Conservation Measures

- Harvest on sustainable basis.
- Identify and protect important habitats from disruptive land uses.

MARTEN (*Martes americana*) / QAVVIASIAQ

Biology

Martens occur throughout forested regions of Canada and to a limited extent in Rocky Mountains of Northwestern U.S. Males may weigh up to or greater than 1.8 kg (4 pounds), females to 1.2 kg (2.6 pounds). Marten mature at about 15 months of age but may not breed until 2 years old. May live to 13 years in wild. Pairs breed in mid-summer, with young born mid-March to late April. Females produce one litter or 3-5 young per year. Martens den in tree hollows high off ground or under rocks, squirrel middens, logs, tree roots or in snow dens. While generally active within a range of a 1-20 km² (0.4 - 7.8 mi²), males use larger area than females. Martens feed on small mammals (e.g. lemmings, hares), birds, insects and fruits.

Traditional Use

Furbearer.

Important Habitat

Usually older evergreen forests with abundant small mammals (squirrels, mice, voles). Some regenerated forests following fire are also important. Rarely leave the tree line.

Delesse Lake, Tadenet, Granet, to Tsoko Lake; willowy creeks; occasionally in coastal areas.

Management Plans/Agreements

No management plans specifically for marten; managed under general hunting and trapping regulations. Information can be found in Draft Co-management Plan for the Fur Industry (2000).

Research Priority

Unspecified.

Population Status

Unknown but variable seasonally and annually.

Population Goal

Unspecified.

Conservation Measures

- Identify and protect important habitats from disruptive land uses.
- Only trap in season when pelt is prime.
- Support HTC bylaw (proposed) on designated trapping areas.

MINK (*Mustela vison*) / TIRIAQPAK

Biology

Mink may occur at densities of 1 to 8 animals per km² (per 0.4 mi²) and are usually solitary. Mink mate February to April, and give birth late April to early May to 2-10 young. Young leave the den in 7-8 weeks. Females mature in approximately 12 months, while males in approximately 18 months. Mink can dive to depths of at least 5-6 m (16 - 20 ft.) and swim underwater for up to 30 m (98 ft.). They are usually active at night, early morning and evening, with minimal day time activity, feeding on small mammals, fish, small birds, insects. Mink may travel to 25 km (15.5 mi) in a night if food is scarce.

Traditional Use

Furbearer.

Important Habitat

Den in vacant beaver or muskrat houses, burrows, under tree roots or stones near water. Burrows may be up to 3 m (9.8 ft.) long and 1 m (3.3 ft.) beneath the surface with more than one entrance.

Delesse Lake, Tadenet, Granet, to Tsoko Lake; willowy creeks; occasionally in coastal areas.

Management Plans/Agreements

No management plans specifically for mink; managed under general hunting and trapping regulations. Information can be found in Draft Co-management Plan for the Fur Industry (2000).

Research Priority

Moderate to high: The community is interested in knowing more of the local biology, population status and important habitat areas. Interest has also been expressed in determining what the best time for a trapping season would be.

Population Status

Unknown.

Population Goal

Unspecified.

Conservation Measures

- Harvest only when pelt is in prime condition
- Identify and protect important habitats from disruptive land uses.
- Support HTC bylaw (proposed) on designated trapping areas.
- Follow ENR's and Local HTC Guidelines

MOOSE (*Alces alces*) / TUKTUVAK

Biology

Calving occurs in May or early June, typically single calf, however mature females may have two calves. Males mature by about 2 1/2 years, and cows by 2 to 4 years of age. Breeding occurs approximately third week of September (September 20).

Traditional Use

Seldom harvested by the community. 1 individual harvested ~ every 3 years.

Important Habitat

Mainly river valleys below the treeline.

Management Plans/Agreements

None at present.

Research Priority

Implement periodic population and productivity surveys.

Population Status

Unknown for the Paulatuk Area

Population Goal

Unspecified. Maintain population at level, which will provide maximum sustained yield.

Conservation Measures

- Do not hunt more than is needed.
- Harvest on sustainable basis.
- Avoid shooting mature bulls during the rut.
- Identify and protect important habitats from disruptive land uses.

MUSKOX (*Ovibos moschatus*) / UMINGMAK

Biology

The muskox on the Yukon North Slope today is an introduced subspecies from Greenland originally introduced to Alaska in 1969 and 1970. Calving generally occurs from about mid April to mid May with the majority born by May 1 and normally cows produce single calf annually. It is approximately 3 weeks before calf can keep up with herd. Breeding occurs throughout August and early September. Females are generally sexually maturing at 3 years of age, males at 5 and can live to at least 24 years of age. Wolves are the main predator.

Muskox winter along valleys, drainages, hilltops. In summer, the range includes river valleys and lakeshores where there is growth of grasses, sedges, crowberry, blueberry and willow.



Trevor Lucas

Traditional Use

Important food source used as a substitute for caribou. Fur used for resale and sometimes used for traditional clothing.

Important Habitat

Riparian corridors of the Anderson, Horton, Hornaday and Brock rivers.

Management Plans/Agreements

None east of the Delta

Research Priority

There is interest in knowing more about muskox diets, and relationship with caribou. Information on population numbers and movements of high to moderate priority.

Population Status

Muskox population estimates:		
Mainland (ISR, TNNP)	2,855+1356	(2009)
	1215 + 526	(2002)
	2587 ± 1505	(1997) - smaller area surveyed

The population has been expanding eastward since first survey in 1980.

Population Goal

Unspecified. Maintain a healthy population that allows for continued subsistence and non-

resident hunter outfitting.

Conservation Measures

- Identify and protect important habitats from disruptive land uses.
- Allow population to increase but not to point where this might have impact on caribou (if there is an impact).

MUSKRAT (*Ondatra zibethicus*) / KIVGALUK

Biology

Young are born from June through mid-August, 6-8 young typically. The average weight at maturity is 1.4 - 2.3 kg (3-5 lb). Muskrats move around a lot in spring. Feed on aquatic weeds from the lake bottoms. There seems to be a cycle in the number of muskrats as with many other animals, sometimes they are scarce other times abundant. Local trappers feel that muskrats were healthier in Delta when there was more trapping.

Traditional Use

Furbearer. Seldom harvested by the community.

Important Habitat

Rat Lake and other small inland lakes

Management Plans/Agreements

No management plans specifically for muskrat; managed under general hunting and trapping regulations. Information can be found in draft Co-management Plan for the Fur Industry (2000).

Research Priority

There is local interest in knowing about the health of muskrats.

Population Status

Abundant. Recent concerns about high numbers of beavers and otter and less muskrats.

Population Goal

Adequate numbers at present.

Conservation Measures

- Hunt only in specific seasons (March 1- June 15)
- Identify and protect important habitats from disruptive land uses

POLAR BEAR (*Ursus maritimus*) / NANUQ

Biology

Females den from November to late March, early April and breed late April early May. Average litter size is between 1 and 3 cubs. Females may have young every 3 to 4 years. Females may successfully breed at 4 years of age but most do not breed until 5 years of age. Though bears can live close to 30 years in the wild, most do not survive beyond 20-25 years of age. Ringed seals are eaten more frequently than bearded seals.



Trevor Lucas

Traditional Use

Furbearer, occasionally used for clothing. Historically food; still eaten in some communities.

Important Habitat

Denning areas along North Slope of Yukon, Herschel Island, Kay Point, shear zone offshore from coast.

Management Plans/Agreements

Inuvialuit-Inupiat Polar Bear Management Agreement in the Southern Beaufort Sea (1988, latest revision 2011)

Polar Bear Management Agreement between the Inuvialuit and the Inuit of the western Kitikmeot region (2006)

Hunters and Trappers Bylaw written into Regulations under the NWT *Wildlife Act*.

Research Priority

Moderate: Community interest in movements. Population estimates provide information to try to ensure sustainable harvest. International interest very high.

Population Status

Southern Beaufort:	1,215	(2006 - based on new boundary
(Likely declining)	1,526 (95% CI 1211 – 1841)	(2006)
	1,800	Used for management purposes until 2006 estimate
	1,778 (SD 803)	(1983)
Northern Beaufort:	1,711	(2006 – based on new boundary)
	1,400	(2006 – adjusted for negative sampling bias)
(Stable)	980 (825 – 1135)	(2006)
	867 (726 – 1008)	(1987)
	745 (499 – 991)	(1975)

Viscount Melville Sound	215 (SE 57.4)	(1999- based on RISKMAN modeling of 5 year moratorium)
	161 (SE 34)	(1992)

Population Goal

Maintain at a level, which can produce the maximum sustained yield.

Conservation Measures

- Follow regulations agreed to in HTC bylaws and follow the Inuvialuit and Inupiat Agreement and the Inuvialuit and West Kitikmeot Agreements
- Do not kill females with cubs and restrict female harvest to no more than 33% of total harvest.
- Do not disturb bears in dens or constructing dens.
- Only hunt from December 1 to May 31. (varies depending on community)
- Collect and report all information requested in bylaws after making a kill.
- Identify and protect important habitats from disruptive land uses.

SNOWSHOE HARE or RABBIT (*Lepus americanus*) / UKALIQ

Biology

The Rabbits breed in May having up to 8 in a litter, and the young are born in June and July. Rabbits are very important for the food chain for other animals (e.g. lynx, fox, owls, eagles).

Traditional Use

Highly valued as food item and hides for trim, duffles for mukluks, blankets, arts and crafts.

Important Habitat

Cape Parry to Bennett Point; Pearce Point; around tree line area.

Management Plans/Agreements

None

Recent Research

Long term snowshoe hare monitoring program (annual pellet count) being undertaken by GNWT.

Research Priority

High interest in population biology and role in ecosystem.

Population Status

Unknown.

Population Goal

Adequate numbers to provide for subsistence harvest by local people.

Conservation Measures

- Harvest on sustainable basis.
- Identify and protect important habitats from disruptive land uses.



WOLF (*Canis lupus*) / AMARUQ

Biology

Wolves are at dens from May to late July, with from 2 to 9 pups observed. Average litter size on mainland in ISR is 4.5. Wolves may be sexually maturing at about 2 years of age though younger and older ages of maturity are possible. Maximum age of wolves observed in ISR is 12 years old, however, the average age of adult wolves is about 3. Local people report that there were many wolves in the 1930s and 1940s. Wolves appeared to decline due to control programs in 1950s, and then began to recover in mid 1970s.



Trevor Lucas

Traditional Use

Furbearer, help maintain balance of nature.

Important Habitat

Treeline-tundra transition area.
Bluenose caribou wintering range.

Management Plans/Agreements

No management plans specifically for wolves; managed under general hunting and trapping regulations. Information can be found in Draft Co-management Plan for the Fur Industry (2000).

Research Priority

Seasonal movements and ecology.

Population Status

Relative low density but population may be increasing.

Population Goal

Maintain a healthy population that can sustain an annual harvest by hunters and trappers. Harvest is monitored through sample\carcass collections.

Conservation Measures

- Identify and protect important habitats from disruptive land uses.
- Do not harvest in summer when fur is poor.
- Hunt by traditional means; do not use aircraft or poison to control wolves.
- Do not disturb wolves or remove pups from den. Keep at least 500 m (547 yd) from active dens.
- If guiding tourists, do not hunt wolves.
- Submit information \ samples from wolves harvested

WOLVERINE (*Gulo gulo*) / QAVVIK

Biology

Wolverine breed in March to May and generally have 1-2 young (may have up to 5) which appear in June to July. Young are nursed 8-10 weeks, and leave mother in the fall. Wolverine are sexually mature at 2-3 years of age. In the north wolverine may be active for 3-4 hour intervals between rests and may travel up to 45 km (28 mi) per day. Caves, rock crevices, fallen logs, holes in snow and burrows are used for shelter. Home-range sizes in the central Arctic vary between 126 km² (females) and 404 km² (males). Dispersal distances by females average 133 km (range 69 - 225 km), and males average 231 km (range 73 – 326 km). Wolverine feed on dead animals, eggs, small and large mammals (lemmings, caribou, sheep); most large mammals are obtained from kills of wolves or bears.

Traditional Use

Fur very important for local use, also important for maintaining balance in nature.

Important Habitat

Coastal areas; Parry Peninsula; around tree line; Tadenet, Tsoko, Granet Lakes area; Hornaday, Brock and Horton Rivers.

Management Plans/Agreements

No management plans specifically for wolverine; managed under general hunting and trapping regulations. Information can be found in Draft Co-management Plan for the Fur Industry (2000)

Research Priority

Low: Some interest in population status, biology, important habitat areas and information from carcass collections.

Population Status

Relatively few in Delta.

Population Goal

Unspecified. Harvest monitored by carcass/sample collections

Conservation Measures

- Identify and protect important habitats from disruptive land uses.
- Do not disturb dens.
- Do not hunt in summer.
- Do not poison.
- Support HTC bylaw (proposed) on designated trapping areas.

BELUGA WHALE (*Delphinapterus leucas*) / QILALUGAQ

Biology

The beluga is an odontocete, or toothed whale, having up to 40 teeth that are similar in shape and size. They are dark grey and about 1.5 m (5 ft.) in length when they are born. Calving occurs in spring. With each passing year, the skin lightens in colour, by the time a beluga is about 9 years of age, it is white in colour. Adult males are larger than adult females. Belugas primarily feed on Arctic cod and squid; however, they also feed on a variety of other fish including sandlance and capelin that appear to be becoming a more prominent food source in recent years. Belugas harvested in Ulukhaktok in 2014 had been feeding primarily on sandlance based on stomach contents; the stomachs of belugas harvested in the Mackenzie Delta are generally empty. They themselves are preyed upon by polar bears, killer whales and humans, and to a limited extent walrus.

They are a very vocal species, having earned the name of “the sea canary”. They make sounds that are used for echolocation, that is to help them find their way and their food, as well as sounds to communicate, which are those which can be heard by other whales. They have a habit unique among whales, and that is that they concentrate in estuaries during the summer. This has made them well accessible to hunters and well known to the general public.

Traditional Use

Highly valued food resource.

Important Habitat

Mouth of Horton River, Argo Bay, Brown’s Harbour, Fish Camp, Darnley Bay, Tippi, Egg Island
Calving in Mackenzie Bay and Shallow Bay.

Major summer concentrations occur in mid-July in Mackenzie Bay, Kendall Island, and Shallow Bay. Also smaller summer aggregations occur at the mouth of the Horton River and Liverpool Bay. During the summer, large male beluga travel to feed in offshore areas such as Viscount Melville Sound, while smaller males, females with calves tend to remain in more shallow coastal areas.



Frank Pokiak

Management Plans/Agreements

- Beaufort Sea Beluga Management Plan (FJMC, 2013)
- Paulatuk HTC Beluga Hunting Bylaws and Guidelines
- Inuvialuit Inupiat Beaufort Sea Beluga Whale Agreement (2000)

Recent Research & Monitoring

FJMC Fish & Marine Mammal Community Monitoring Program (formerly Beluga Monitoring Program):

- Inuvialuit beluga harvest monitoring began in the Mackenzie Delta in the 1970s through the Fisheries and Marine Service of the Government of Canada (1973-1975) and the oil and gas industry (1977-1982). DFO led this program between 1981-1986, and the FJMC took over the program in 1987. This program is the largest and longest database of beluga harvest monitoring in the Arctic.
- Currently monitors are selected by local HTC's to sample belugas harvested at Hendrickson Island, East Whitefish, Kendall Island, and Paulatuk, with on-call monitors in Ulukhaktok. Harvesters from the communities of Aklavik and Sachs Harbour, in addition to the other communities, have the option of sampling their own whales through the Harvester Rewards Program. Where and when a monitor is not present, the harvester may sample their whale by using sampling kits that are available at their HTC office.
- The monitoring information collected through this program includes the date and location of each harvested whale, measurements from each whale (length, fluke width, girth, blubber thickness), sex, colour and whether or not any scars or skin abnormalities were observed. A number of samples (blubber, muscle, blood, milk, skin, eyeball, liver, kidney, lower jaw) are also collected to learn more about the whales.

Aerial Surveys:

- 1970s and 1980s by oil and gas industry contractors
- 2007-2009 surveys led by DFO repeated previous work for comparison (used same methods as 1980s surveys)
- 2011-2013 surveys led by DFO focused on how the arrival of beluga in the Mackenzie River estuary and Tuktoyaktuk Peninsula is influenced by ice conditions

DNA:

- Beaufort Sea beluga constitute one of the largest stocks of beluga in Canada, and one of four that overwinters in the Bering Sea.
- Together these four stocks make up the Bering Sea population.
- Genetic studies have shown the stocks are discreet, with the exception of some wanderings by the large males.

Local and traditional ecological knowledge:

- A DFO program (2013-2016) has begun to document the local knowledge of beluga from harvesters in Tuktoyaktuk, Inuvik, Paulatuk and Ulukhaktok. The findings will be used to build upon existing long-term beluga monitoring in the ISR.

Satellite Telemetry:

- A total of 27 beluga whales were tagged with satellite transmitters in the Mackenzie Delta in 1993 (n=4), 1995 (n=16), 1997 (n=7)
- In two of the study years, when the whales were tagged earlier in the season, the largest males travelled to Viscount Melville Sound where they spent 2-3 weeks diving/feeding, before undertaking their migration back to the Bering Sea where they overwinter
- Females and calves tended to swim counter-clockwise circuits in Amundsen Gulf and fed in shallower waters along the coast.

Research Priority

High - Community interest in the following.

1. Improve collection and analysis of information obtained from harvest, process and summarize all existing data, compare data with other data sets, record traditional knowledge.
2. Regular census including survey of summering range.

3. Inshore and Offshore Movement Study.

Population Status

- The Eastern Beaufort Sea Beluga population is estimated at almost 40,000 (COSEWIC 2004).
- Growth rate 2.5%
- Stock is stable or increasing (recent surveys show a 3x greater abundance in the surveyed area when compared to 1970 observations (Harwood and Kingsley 2013)).
- Present annual harvests are less than 1% of conservative estimate of stock size

Population Goal

Unspecified, adequate numbers at present.

Conservation Measures

- Support the Beaufort Sea Beluga Management Plan.
- Follow HTC Beluga Bylaws.
- Identify and protect important habitats from disruptive land uses.

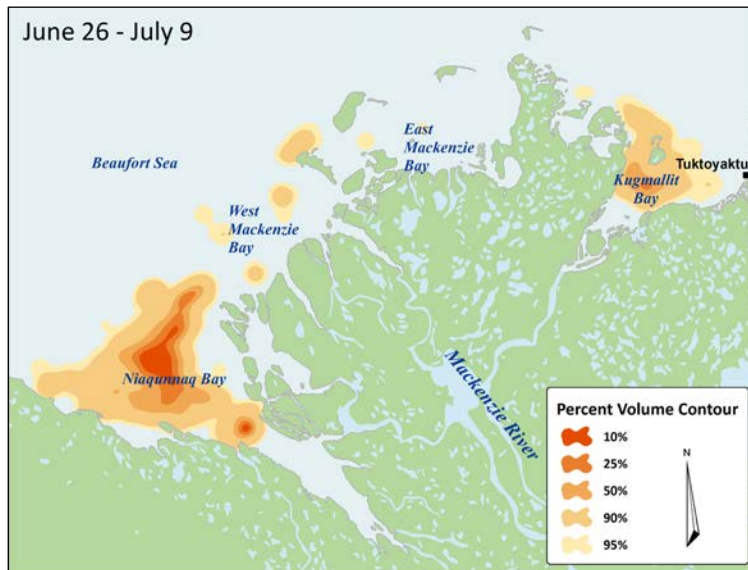
PAULATUK HUNTERS & TRAPPERS COMMITTEE BELUGA HUNTING BYLAWS

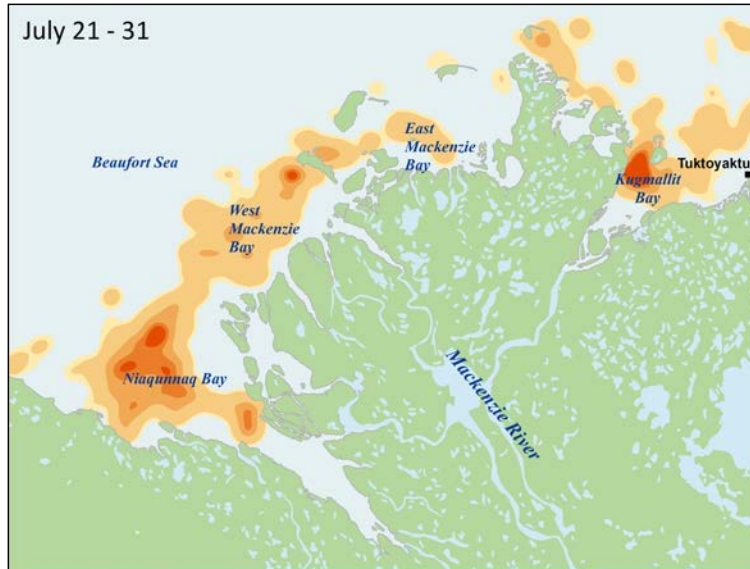
1. Each boat will have the following equipment:
 - a) A rifle of not less than .30-30 calibre;
 - b) Two harpoons equipped with line and float, or one such harpoon and a “seal hook”;
 - c) One grapple hook attached to a sufficient length of line to reach the ocean bottom in the area being hunted;
 - d) One float marker with enough line to reach the ocean bottom in the area being hunted, and equipped with an anchor;
 - e) A towing line.
2. Each hunter must attempt to retrieve sunken or wounded whales before hunting for another whale.
3. No person shall, at any time, take more whales on a hunt than can adequately be taken care of considering limitations of the boat, weather, the towing distance, and the number of people in the camp available for processing.
4. Beluga hunters must provide Beluga Harvest Monitors with the requested information and reasonable access to harvested whales for measurements and samples.
5. There shall be no hunting in “No Hunting Zones” if applicable
6. There shall be no interference during the hunt by tourists, operators or others.

Beluga Hunting Guidelines

1. A proven method by some hunters has reduced loss rates considerably, by harpooning first. Whales should be harpooned before shooting. No person should hunt alone.
2. Each hunting boat should have at least one experienced hunter.
3. A hunting leader shall be appointed at each camp, and approved by the Paulatuk Hunters and Trappers Committee (PHTC). The hunting leader will advise and make any necessary decisions on matters concerning the safety and efficiency of beluga hunting based from that camp, according to guidelines for hunting leaders provided by the PHTC.
4. Hunters should follow the directions of the appointed hunting leader in each camp.
5. All carcasses must be towed out to deep water or burned after processing.

6. These rules may from time to time be changed by the PHTC.





Map 34. Percent volume contours of beluga sightings made during systematic aerial surveys in the Mackenzie Estuary during early (top), mid (middle) and late July (lower) time periods, 1977-1985 and 1992 (Harwood et al. 2014)

References

- Asselin, N.C., Barber, D.G., Stirling, I., Ferguson, S.H., and Richard, P.R. 2011. Beluga (*Delphinapterus leucas*) habitat selection in the eastern Beaufort Sea in spring, 1975–1979. *Polar Biol.* DOI 10.1007/s00300-011-0990-5.
- Asselin, N.C., Barber, D.G., Richard, P.R., and Ferguson, S.H. 2012. Occurrence, Distribution and Behaviour of Beluga (*Delphinapterus leucas*) and Bowhead (*Balaena mysticetus*) Whales at the Franklin Bay Ice Edge in June 2008. *Arctic.* 65-2. P. 121-132.
- Barber, D.G., Saczuk, E., and Richard, P.R. 2001. Examination of beluga-habitat relationships through use of telemetry and a geographic information system. *Arctic* 54: 305-316.
- Brennin, R., Murray, B.W., Friesen, M.K., Maiers, D., Clayton, J.W. and B.N. White. 1997. Population genetic structure of beluga whales (*Delphinapterus leucas*): mitochondrial DNA sequence variation within and among North American populations.
- Brown-Gladden, J.G., Ferguson, M.M. and J.W. Clayton. 1997. Matriarchal genetic population structure of North American beluga whales, *Delphinapterus leucas*, (Cetacea: Monodontidae).
- Byers, T. and L.W. Roberts. 1995. Harpoon and Ulus: Collective wisdom and traditions of Inuvialuit regarding the beluga (qilalugaq) in the Mackenzie River estuary. Unpublished Report. DIAND / FJMC.
- COSEWIC. 2004. COSEWIC assessment and update status report on the Beluga Whale *Delphinapterus leucas* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 70 p.
- Desforges J.P., Ross P.S., Dangerfield N., Palace V.P., Whitarcar M., and Loseto LL. 2013. Vitamin A and E profiles as biomarkers of PCB exposure in beluga whales (*Delphinapterus leucas*) from the western Canadian Arctic. *Aquatic Toxicology* 2013.142-143:p.317-28.
- de March, B.G.E., Maiers, L.D. and M.K. Freisen. 1999. Genetic differences among Canadian and adjacent beluga whale stocks as determined by mitochondrial DNA and 15 nuclear DNA microsatellite loci. NAMMCO Scientific Committee.
- Harwood, L.A., Innes, S., Norton, P. and M.C.S. Kingsley. 1996. Distribution and abundance of beluga whales in the Mackenzie Estuary, Southeast Beaufort Sea, and west Amundsen Gulf during late July 1992. DFO.

- Harwood, L.A., and Smith, T.G. 2002. Whales of the Inuvialuit settlement region in Canada's Western Arctic: An overview and outlook. *Arctic* 55(Suppl. 1):77 – 93.
- Harwood, L.A. and Kingsley, M. 2013. Trends in the Offshore Distribution and Relative Abundance of Beaufort Sea Belugas, 1982 – 85 vs 2007 – 09. *Arctic*: 66-3: 247-256.
- Harwood, L.A., Iacozza, J., Auld, J.C., Norton, P., and Loseto, L. 2014. Belugas in the Mackenzie River estuary, NT, Canada: Habitat use and hot spots in the Tarium Niryuutait Marine Protected Area. *Ocean & Coastal Management* 100: 128-138.
- Harwood, L.A., Smith, T.G., George, J.C., Sandstrom, S.J., Walkusz, W. and Divoky, G.J. 2015. Change in the Beaufort Sea ecosystem: Diverging trends in body condition and/or production in five marine vertebrate species. *Progress in Oceanography* 136: 263-273
- Hornby, C., Hoover, C., Joynt, A., Torontow, V., Hynes K., and Loseto, L. 2014. Arrival of beluga (*Delphinapterus leucas*) to the Mackenzie Estuary in relation to sea ice: report on spring 2011-2013 aerial surveys. *Can. Data Rep. Fish. Aquat. Sci.* 1251: vii + 25 p.
- Loseto, L.L., Richard, P., Stern, G.A., Orr, J., and Ferguson, S.H. 2006. Segregation of Beaufort Sea beluga whales during the open-water season. *Can. J. Zool.* 84, 1743–1751.
- Loseto, L.L., Stern, G.A., and Ferguson, S.H., 2008. Size and biomagnification: how habitat selection explains beluga mercury levels. *Environmental Science and Technology* 42, 3982-3988.
- Loseto, L.L., Stern, G.A., Connelly, T.L., Deibel d, D., Gemmill, B., A. Prokopowicz, A., Fortier, L., and Ferguson, S.H. 2009. Summer diet of beluga whales inferred by fatty acid analysis of the eastern Beaufort Sea food web. *Journal of Experimental Marine Biology and Ecology* 374 (2009) 12–18.
- Luque, S. P. and Ferguson, S.H. 2010. Age structure, growth, mortality, and density of belugas (*Delphinapterus leucas*) in the Canadian Arctic: responses to environment? *Polar Biology* 33:163–178
- Martin, A.W. and T.G. Smith. 1999. Strategy and capability of wild belugas, *Delphinapterus leucas*, during deep benthic diving. *Cdn Jnl of Zoology* 77: 1783-1793.
- Richard, P.R., Martin, A.R. and J.R. Orr. 2001. Summer and autumn movements of belugas of the Eastern Beaufort Sea. DFO.
- Wagemann, R., Innes, S. and P.R. Richard. 1996. Overview and regional and temporal differences of heavy metals in Arctic whales and ringed seals in the Canadian Arctic. *Science and the Total Evt* 186: 41-66.
- Wong, P.L. 1999. Beluga whale (*Delphinapterus leucas*), bowhead whale (*Balaena mysticetus*) and ringed seal (*Phoca hispida*) in southeastern Beaufort Sea. DFO.

BOWHEAD WHALE (*Balaena mysticetus*) / ARVIQ

Biology

The bowhead whale is a baleen whale, black in colour except for white markings on chin and tail that usually come with age. Bowheads may reach a length of up to 20 m (65 ft.), with 12-15 m (40-50 ft) being the usual size. A small adult weighs 13,608 kg (30,000 lb). Blubber can be up to 51 cm (20 in.) thick. They reach adulthood at about 20 years, and have one calf every 3 to 5 years. They feed lower in the food chain than beluga, choosing areas where zooplankton is concentrated. They usually travel alone or in small groups. They make vocalizations that are a lower frequency than beluga.

Bowheads from the Bering-Chukchi-Beaufort population winter (November to April) in the western and central Bering Sea amongst broken pack ice. In spring (April through June) the whales migrate north and east along the northern coast of Alaska to the eastern Beaufort Sea, initially appearing in western Amundsen Gulf in offshore lead areas (>200 m) as break-up is under way. Their summer (June to September) distribution is centred in the southeastern Beaufort Sea, along the southern and western coasts of Banks Island, in Amundsen Gulf, and along the waters offshore of the Tuktoyaktuk Peninsula approximately 20-50 m in depth, Yukon coastal waters, the shelf break, the Mackenzie and Kugmallit Canyon areas. Recent satellite tracking indicates that they also occur around northwestern Banks Island and into M'Clure Strait (Heide-Jørgensen, et al, 2012).

The Alaskan Inupiat harvest about 60 whales per year. Aklavik took one bowhead in 1991, and another in 1996.

Important Habitat

Darnley Bay, Pearce Point, Cape Bathurst, Franklin Bay, King Point, Shingle Point, Mackenzie Bay, Herschel Island, West Whitefish Station.

Management Plans/Agreements

Management Plan for the Bering-Chukchi-Beaufort population of Bowhead Whale (*Balaena mysticetus*) in Canada (SARA, 2014).

Recent Research

Satellite tagging of bowhead in the Alaskan and Canadian Beaufort Sea has been a cooperative effort by DFO, Alaska Department of Fish and Game, Alaska Eskimo Whaling Commission, Aklavik HTC, Tuktoyaktuk HTC, Greenland Institute of Natural Resources, and the BC Center for Animal Health. Between 2006 and 2014, 68 bowhead whales were tagged in Alaska and the ISR (the 23 whales from the ISR were tagged between 2007-2010 and in 2014). This program will continue in 2016, and potentially until 2017 (dependent on funding).

In the 1980s, extensive, multi-year programs were undertaken to monitor distribution of bowheads in both the Canadian and Alaskan Beaufort Sea areas, to study the effects of industry on bowheads, and photogrammetry to identify individuals.

Currently, if a bowhead whale is harvested, a community monitor takes the measurements and samples, with a biologist from DFO.

Research Priority

High: Community interested in knowing more about species biology.

Population Status

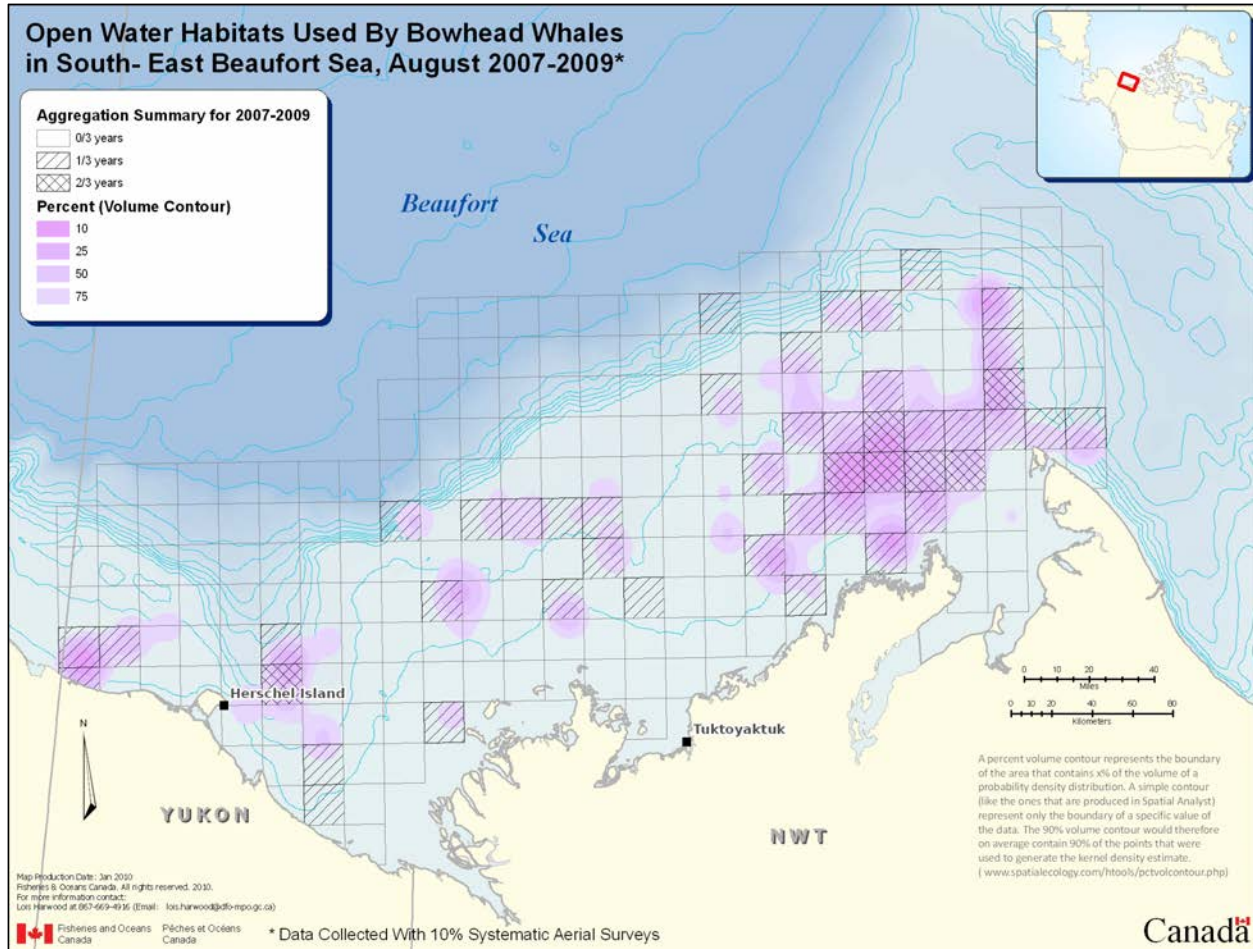
- The 2001 Bering-Chukchi-Beaufort bowhead population estimate is 10,470 (95% confidence intervals 8,100-13,500).
- Population growth rate from 1978-2001 was 3.4%
- Since 2009, the Bering-Chukchi-Beaufort population of bowhead has been designated as a species of 'special concern' under COSEWIC (Committee on the Status of Endangered Wildlife in Canada). The SARA (*Species at Risk Act*) status of this population is also 'special concern'.

Population Goal

Maintain thriving population for subsistence harvest. Unspecified. Currently being managed for population recovery.

Conservation Measures

- Identify and protect important habitats from disruptive uses.



Map 35. Bowhead open water habitat use in South-East Beaufort Sea, August 2007-2009 based on DFO aerial surveys.

References

- Asselin, N.C., Barber, D.G., Richard, P.R., and Ferguson, S.H. 2012. Occurrence, Distribution and Behaviour of Beluga (*Delphinapterus leucas*) and Bowhead (*Balaena mysticetus*) Whales at the Franklin Bay Ice Edge in June 2008. *Arctic*. 65-2. P. 121-132.
- Braithwaite, L.F., Aley, M.G. and D.L. Slater. 1983. The effects of oil on the feeding mechanism of the bowhead whale.
- COSEWIC. 2009. COSEWIC assessment and update status report on the Bowhead Whale *Balaena mysticetus*, Bering-Chukchi-Beaufort population and Eastern Canada-West Greenland population, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 49 pp. (www.sararegistry.gc.ca/status/status_e.cfm).
- George, J.C., Bada, J., Zeh, J., Scott, L., Brown, S.E., O'Hara, T. and Suydam, R. 1999. Age and growth estimates of bowhead whales, *Balaena mysticetus*, via aspartic acid racemization.
- Harwood, L.A. and T.G. Smith. 2000. Whales of the Beaufort Sea: an overview and outlook. DFO.
- Harwood, L.A., Auld, J., Joynt, A., and Moore, S.E. 2010. Distribution of Bowhead Whales in the S.E. Beaufort Sea during late summer, 2007-2009. DFO Can. Sci. Advis. Sec. Res. Doc. 2009/111. iv + 22 p.

- Harwood, L.A., Smith, T.G., George, J.C., Sandstrom, S.J., Walkusz, W. and Divoky, G.J. 2015. Change in the Beaufort Sea ecosystem: Diverging trends in body condition and/or production in five marine vertebrate species. *Progress in Oceanography* 136: 263-273
- Heide-Jørgensen, M. P., Laidre, K.L., Quakenbush, L.T. and Citta, J.J. 2012. The Northwest Passage opens for bowhead whales. *Biol. Lett.* 8, 270-273.
- Koski, W.R., Miller, G.W. and R.A. Davis. 1988. The potential effects of tanker traffic on the bowhead whale in the Beaufort Sea. NOGAP.
- Richardson, W.J., Greene, C.R., Koski, W.R., Smultea, M.A., Cameron, G., Holdsworth, C., Miller, G., Woodley, T. and Wursig, B. 1991. Acoustic effects of oil production activities on bowhead and white whales visible during spring migration near Pt. Barrow, Alaska, 1989 phase: sound propagation and whale responses to playbacks of continuous drilling noise from an ice platform, as studied in pack ice conditions. LGL Limited.
- Treacy, S.D. 1998. Aerial surveys of endangered whales in the Beaufort Sea, fall 1997. U.S. Minerals Management Service.
- Wagemann, R., Innes, S. and P.R. Richard. 1996. Overview and regional and temporal differences of heavy metals in Arctic whales and ringed seals in the Canadian Arctic. *Science and the Total Environment* 186: 41-66.
- Walkusz, W., Williams, W.J., Harwood, L.A., Moore, S.E., Stewart, B.E., and Kwasniewski, S. 2012. Composition, biomass and energetic content of biota in the vicinity of feeding bowhead whales (*Balaena mysticetus*) in the Cape Bathurst upwelling region (south eastern Beaufort Sea). *Deep-Sea Research I* 69 25–35.
- Wong, P.L. 1999. Beluga whale (*Delphinapterus leucas*), bowhead whale (*Balaena mysticetus*) and ringed seal (*Phoca hispida*) in southeastern Beaufort Sea. DFO.
- Zeh, J.E. 1995. Population size and rate of increase, 1978-1993, of bowhead whales, *Balaena mysticetus*. International Whaling Commission.

SEALS

RINGED SEAL / NATCHIQ

BEARDED SEAL / UGYUK

Biology

Ringed seals and bearded seals are important components of the marine ecosystem. Ringed seals are the main prey of polar bears.

Ringed Seals

Ringed seals are the smallest of all pinnipeds (seals, sea lions, and walruses) with adults in the Beaufort Sea rarely exceeding 1.5 m (5 ft.) in length and 68 kg (150 lb) in weight. Ringed Seals weigh the most in the winter and early spring when they

have a thick layer of blubber under their skin. The blubber serves as insulation and as an energy source during the breeding and pupping season. The weight of ringed seals declines with the decrease in feeding during the reproductive and moulting season.

The colouration of ringed seals is quite variable, but the basic pattern is a grey back with black spots and a light belly. The seal gets its name from the black spots that are ringed with light marks.

Ringed seals eat a variety of invertebrates and fish. The particular species eaten depends on availability, depth of water, and distance from shore. In the Beaufort Sea. The most important food species is arctic cod, with saffron cod, shrimp, mysids and other large crustaceans being important locally and at certain times of the year.

The ringed seal is an important element of the arctic marine ecosystem, both as the main prey of polar bears and a major consumer of marine fish and invertebrates. It continues to be an important species in the subsistence harvests and economy of Ulukhaktok, and to a lesser extent in Sachs Harbour, Tuktoyaktuk and Paulatuk. Seals are harvested for food, for dog food, and for pelts for handicrafts and clothing. Seal harvests in the ISR between 1988-1996 averaged 1,050 per year, with more than 70% of this coming from Ulukhaktok. Present day harvests are 20-30% of what they were in the 1960s.

Bearded Seals

The bearded seal is the largest true seal that is normally found in the Beaufort Sea. Bearded seals are heaviest during winter and early spring when they may attain a weight of more than 340 kg (750 lb). From June through September adults usually weigh from 216-239 kg (475-525 lb). This seasonal loss of weight results from decreased feeding during spring and summer and is most obvious in changes of the thick layer of blubber under the skin. Measured from nose to tip of tail (not including hind flippers), adults average about 2.4 m (93 in.). Colour varies from a tawny-brown or silver-grey to dark brown.

Bearded seals have neither spots nor bands. They have comparatively long whiskers, rounded fore-flippers of which the middle one of the five digits is longest, relatively small eyes, and four mammary teats rather than two as in the ringed seal.



Lois Harwood

Females give birth to a single pup on the moving sea ice, usually during late April or early May. The average weight of pups at birth is around 34 kg (75 lb), and average length is about 1.3 m (52 in.). By the end of a brief nursing period, which lasts only 12 to 18 days, pups have increased their weight almost three times, to around 86 kg (190 lb).

Bearded seals eat a wide variety of invertebrates and some fishes, mainly in benthic habitats in the Beaufort, Chukchi and Bering seas. Their main prey are crabs, shrimp, clams and snails.

Traditional Use

Clothing (boots, mittens), some used for food.

Important Habitat

Nearshore (east and west of Paulatuk) in Darnley Bay; Pearce Point; Brown's Harbour area

Management Plans/Agreements

None

Recent Research & Monitoring

Ringed Seal:

- A study was conducted to examine the effect of activities related to a drilling program on ringed seals off the Mackenzie Delta area between 2003-2006.
- Paulatuk: seal monitoring program was conducted from 1992-1994 (reproduction and condition), and from 2014-2015 (diet), and a tagging program was conducted in 2001 and 2002.
- Sachs Harbour:
 - Seal monitoring programs (reproduction and condition) were conducted from 1987-1989, in 1992, and again from 2003-2007.
 - Since 2005, ringed seals (4 to 25 animals per year) have been sampled by a community monitor for contaminant analyses (this work is part of the Northern Contaminants Program and is led by Environment Canada). Samples of blubber have been analyzed for persistent organic pollutants such as PCBs, DDT and flame retardants, while liver and muscle have been analyzed for mercury and toxic metals. In addition to contaminants measurements, data is available for the ages and diet (carbon and nitrogen stable isotope ratios) of each seal. Overall, contaminant levels in the seals are similar to other locations in the Canadian arctic.
- Ulukhaktok: have been monitoring reproduction and condition of seals each year from 1992-2014, and in Minto Inlet for five years from 1992-1996. Satellite tagging program for ringed seals was conducted in Ulukhaktok in 1999, 2000 and 2010.

Bearded Seal:

None at the present time. Vocalizations were studied in the 1970s near Ramsay Island, near Ulukhaktok.

Research Priority

High priority: interest in information on sick seals and potential effects on population, as well as biology and monitoring health and presence of contaminants.

Population Status

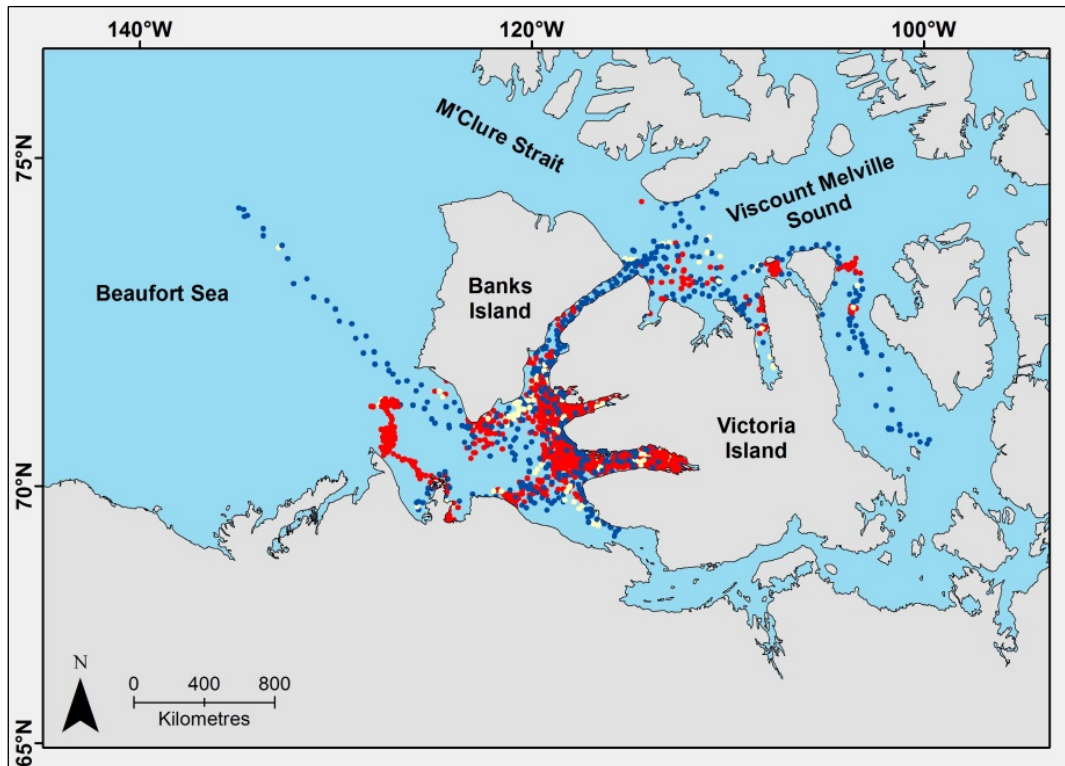
Ringed seals generally more abundant than bearded seals; surveys in the 1970s estimated their ratio to be 17:1. Bearded seals are more common in certain localized areas.

Population Goal

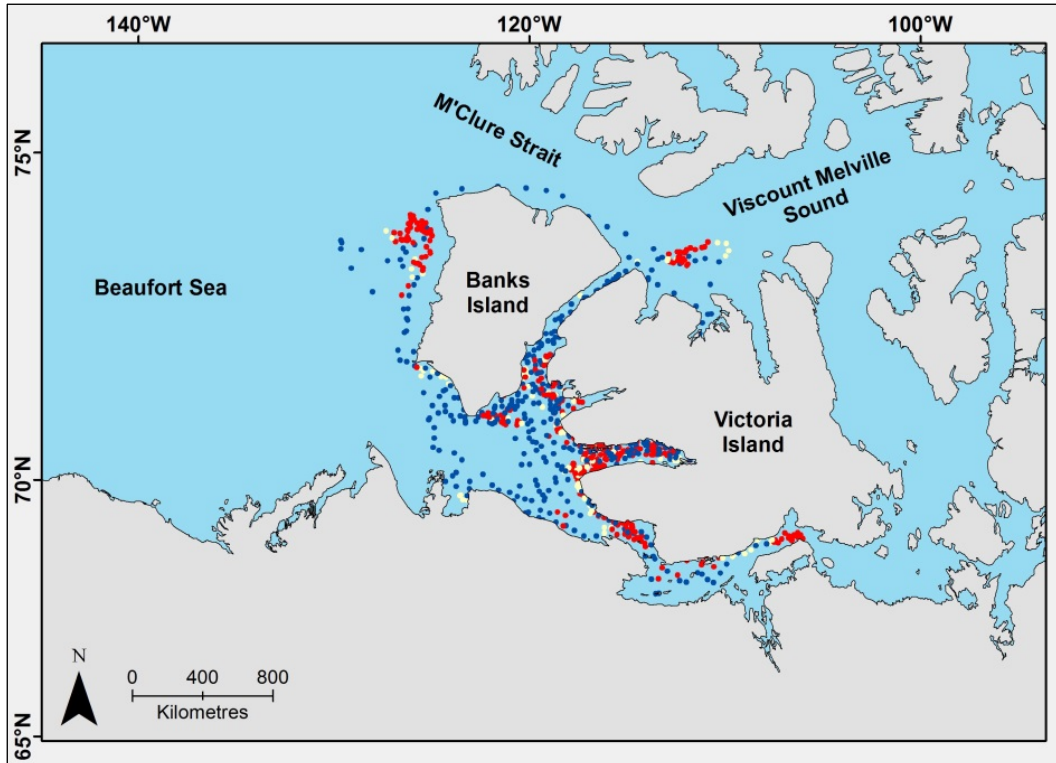
Adequate supply at present.

Conservation Measures

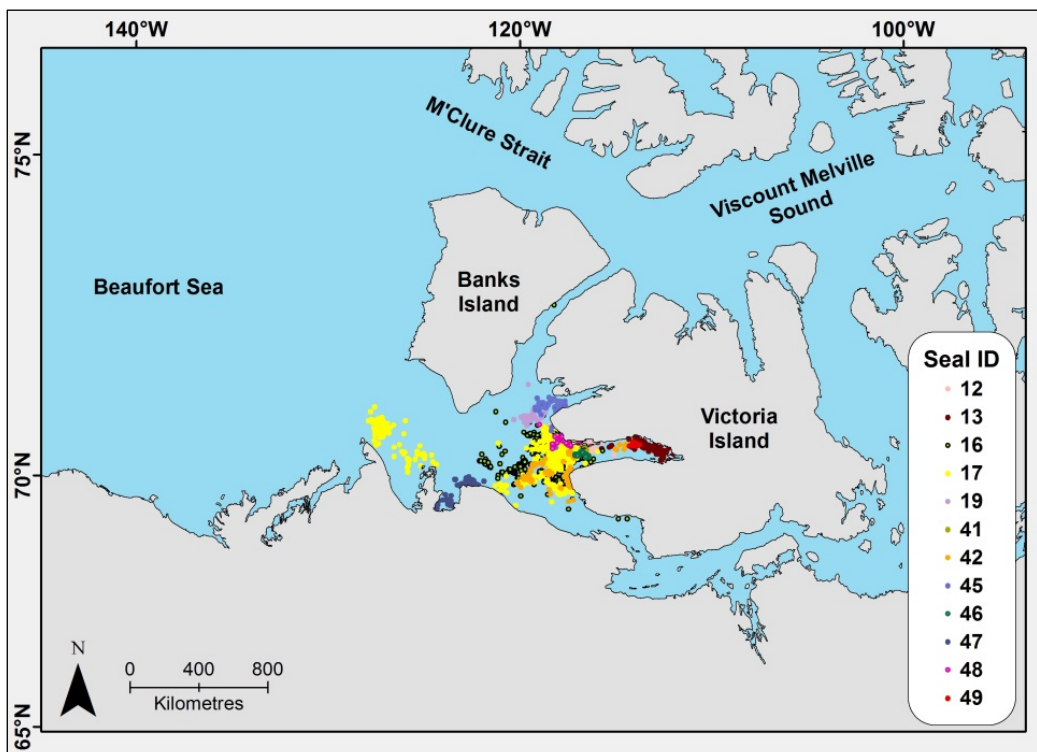
- Share hunt among elders.
- Identify and protect important habitats from disruptive land uses.
- Only harvest what is needed.



Map 1. Adult ringed seal open water habitat use based on tagging studies: red=inferred feeding locations; blue = travelling (Harwood et al. 2015).

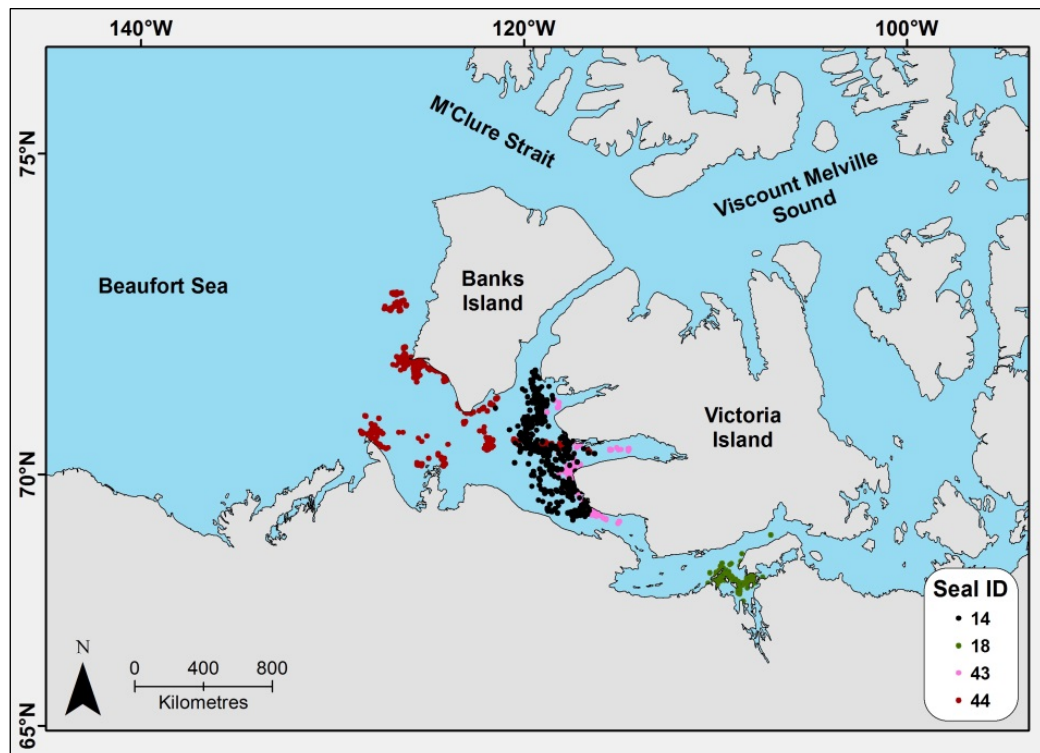


Map 2. Subadult ringed seal open water habitat use based on tagging studies: red=inferred feeding locations; blue=travelling (Harwood et al. 2015).



Map 3. Adult ringed seal winter (1999-2001, 2010-2011) habitat use based on tagging

studies (Harwood et al. 2015).



Map 4. Subadult ringed seal winter (1999-2001, 2010-2011) habitat use based on tagging studies (Harwood et al. 2015).

References

- Addison, R.F. and T.G. Smith. 1998. Trends in organochlorine residue concentrations in blubber of ringed seal (*Phoca hispida*) from Holman, N.W.T., 1972-1989. *Arctic* 51: 253-261
- Harwood, L.A. 1989. Distribution of Ringed Seals in the southeast Beaufort Sea during late summer. Thesis (M.Sc.), University of Alberta, Edmonton, AB.
- Harwood, L.A., and Stirling, I. 1992. Distribution of ringed seals in the southeastern Beaufort Sea during late summer. *Can. J. Zool.* 70: 891-900.
- Harwood, L., Smith, T.G., and Melling, H. 2007. Assessing the Potential Effects of Near Shore Hydrocarbon Exploration on Ringed Seals in the Beaufort Sea Region 2003-2006. Environmental Studies Research Funds Report No. 162. 103 p.
- Harwood, L.A., Thomas G., Smith, T.G., and Auld, J.C. 2012. Fall Migration of Ringed Seals (*Phoca hispida*) through the Beaufort and Chukchi Seas, 2001 - 02. *Arctic* Vol. 65, No. 1 (March 2012) P. 35 - 44.
- Harwood, L. A., Smith, T. G., Auld, J. C., Melling, H. and Yurkowski, D. 2015. Seasonal movements and diving of ringed seals, *Pusa hispida*, in the western Canadian Arctic, 1999-2002 and 2010-2011. *Arctic* 68(2): 193-209.
- Harwood, L.A., Smith, T.G., George, J.C., Sandstrom, S.J., Walkusz, W. and Divoky, G.J. 2015. Change in the Beaufort Sea ecosystem: Diverging trends in body condition and/or production in five marine vertebrate species. *Progress in Oceanography* 136: 263-273
- Kingsley, M.C.S. and Byers, T. 1989. Status of the ringed seal population of Thesiger Bay, N.W.T., 1987-1988. Report prepared for the Fisheries Joint Management Committee, #89-002.36 p.

- Kingsley, M.C.S. and Byers, T. 1990. Status of the ringed seal population of Thesiger Bay, N.W.T., 1987-1989. Report prepared for the Fisheries Joint Management Committee, #89-004.
- Paulatuk, Holman and Tuktoyaktuk Hunters and Trappers, 2007. Tagging and Tracking Ringed Seals in the Western Arctic using Satellite Telemetry - 1999 to 2003.
- Pilfold NW, Derocher AE, Stirling I, Richardson E, Andriashek D (2012) Age and Sex Composition of Seals Killed by Polar Bears in the Eastern Beaufort Sea. PLoS ONE 7(7): e41429. doi:10.1371/journal.pone.0041429
- Smith, T.G. 1987. The ringed seal, *Phoca hispida*, of the Canadian Western Arctic. Canadian Bulletin of Fisheries and Aquatic Sciences 216. 81 p.
- Stirling, I. 2002. Polar bears and seals in the eastern Beaufort Sea and Amundsen Gulf: A synthesis of population trends and ecological relationships over three decades. Arctic 55(suppl.1): 59-76.
- Wagemann, R., Innes, S. and P.R. Richard. 1996. Overview and regional and temporal differences of heavy metals in Arctic whales and ringed seals in the Canadian Arctic. Science and the Total Envnt 186: 41-66.
- Wong, P.L. 1999. Beluga whale (*Delphinapterus leucas*), bowhead whale (*Balaena mysticetus*) and ringed seal (*Phoca hispida*) in southeastern Beaufort Sea. DFO.

MAMMALS SPECIES LIST

A total of 37 species of mammals occur in the western arctic. Successful conservation depends on the recognition that all of these species have special habitat requirements and often have significant relationships with all other components of the land and water.

Arctic Fox (*Alopex lagopus*)/Tigiganniq
 Arctic Ground Squirrel, *Spermophilus parryii*
 Arctic Hare (*Lepus arcticus*)
 Arctic Shrew, *Sorex arcticus*
 Bearded Seal (*Erignathus barbatus*)/Ugruk
 Beaver (*Castor canadensis*)/Kigiaq
 Beluga Whale (*Delphinapterus leucas*)/Qilalugraq
 Black Bear (*Ursus americanus*)/lggarlik
 Bowhead Whale (*Balaena mysticetus*)/Aqvic or Arvia
 Caribou (*Rangifer tarandus*)/Tuttu
 Cinereus Shrew (Masked Shrew), *Sorex cinereus*
 Collared Pika, *Ochotona collaris*
 Ermine (Stoat), *Mustela ermine*
 Dall's Sheep (*Ovis dalli*)
 Grizzly Bear (*Ursus arctos*)/Aklaq
 Hoary Marmot (*Marmota caligata*)
 Least Weasel (*Mustela nivalis*)
 Lynx (*Lynx canadensis*/Niutuyiq
 Marten (*Martes americana*)/Qavviatchiaq
 Meadow Vole (*Microtus pennsylvanicus*)
 Mink (*Neovison vison*)/Itigiaqpak
 Moose (*Alces americanus*)/Tuttuvak
 Muskox (*Ovibos moschatus*)
 Muskrat (*Ondatra zibethicus*)/Kivgaluk
 Nearctic Brown Lemming (*Lemmus trimucronatus*)
 Nearctic Collared Lemming, *Dicrostonyx groenlandicus*
 Northern Flying Squirrel (*Glaucomys sabrinus*)
 Polar Bear (*Ursus maritimus*)/Nanuq
 Porcupine (*Erethizon dorsatum*)
 Red Fox (*Vulpes vulpes*)/Aukpilaqtaq
 Richardson's Collared Lemming, *Dicrostonyx richardsoni*
 Ringed Seal (*Pusa hispida*)/Natchiq
 River Otter (*Lontra canadensis*)
 Root Vole (*Microtus oeconomus*)
 Snowshoe Hare (*Lepus americanus*)/Ukalliq
 NorthernTundra Red-backed Vole (*Myodes rutilus*)
 Wolf (*Canis lupus*)/Amaruq
 Wolverine, *Gulo gulo*

DUCKS / TINGMILUAQQAT

Mallards (*Anas platyrhynchos*)

Pintail (*Anas acuta*)

Wigeon (Baldpate Duck) (*Anas americana*)

Long-tailed Duck (Oldsquaw) (*Clangula hyemalis*) / **Aahaanliq**

Scoters, Surf and White-winged (Black Duck) (*Melanitta spp.*)

King Eider (*Somateria spectabilis*) / **Qingalik**

Common Eider (*Somateria mollissima*) / **Qaugaq**

Mergansers, Red-breasted and Common (*Mergus spp*)

Biology

Arrival and departure of ducks closely tied to breakup and freeze up. Occasional mass die offs of eiders may occur when breakup delayed.

Mallards

Winter throughout the U.S. and Mexico. Leave wintering grounds in early February through March to early April. Arrive on breeding grounds early to mid-May. May nest up to 500 m or more from water but usually within 100 m. Clutch size may range from 1- 18 eggs though average is about 9. Incubate an average of 28 days. Eats both aquatic plants and invertebrates, will also eat cereal grains in south. Along with pintails, one of the last ducks to leave in fall.

Pintail

Largest number of breeding pintails in the western Canadian Arctic occurs in the Mackenzie Delta, large numbers also occur at Anderson River Delta. Winter in southern U.S., Mexico, and Central America. Leave wintering grounds in late January, early February through March, arrive in delta mid-May. Prefer open areas with low vegetation to nest. May nest up to 1.6 km (1 mi) from water but average about 40 m (131 ft.). Clutch size ranges from 3-14 eggs, average about 8. Incubate eggs 22 to 23 days. All eggs tend to hatch within about 8 hours. Eats shoreline vegetation, some aquatic plants, cereal grains (in south) and to some extent aquatic invertebrates. Fall migration begins late August.

Wigeon

The highest density of breeding wigeon in North America occurs in the Mackenzie Delta and Old Crow Flats. Winter through central U.S. to Mexico. Leave wintering grounds in early February through March and early April, arrive on breeding grounds in early to mid-May. May nest up to 400 m from water, average about 36 m. Prefer clumps of brush for nesting. Average clutch size 7 to 9 eggs. Incubate eggs for about 24 days. Eats seeds, stems and leafy parts of aquatic plants and terrestrial grasses. Will eat some cereal grains. Begin fall migration in mid-August.

Long-tailed duck (Old Squaw)

Nest in greater numbers in Arctic than any other duck. Winter along west coast as far as California. Leave wintering areas in mid-March to mid-April, arrive on breeding grounds late May, early June. Prefer to nest on small islands or on upland areas near tundra ponds. May nest up to 200 m (656 ft.) or more from water but most are quite close, average is less than 10 m (33 ft.). Clutch size may range from 2 to 14 eggs, average about 7. Incubate eggs for about 26 days. Have the most varied diet of all the sea ducks. Prefer aquatic organisms for food, eg. crustaceans, mollusks, aquatic invertebrates, small fish and fish eggs, rarely eat aquatic plants. Begin fall migration late August or early September.

Scoters (Surf and White-winged)

Winter along west coast from Alaska to Mexico. Leave wintering areas in March, arrive on breeding grounds late May to early June. Prefer to nest in dense cover, often forested or very bushy areas. Nests are very hard to locate. May nest over 200 m from water, average perhaps about 30 to 100 m (98 - 328 ft.). Clutch size ranges from 5-19 eggs, average about 9 eggs. Incubate for about 28 days. Prefer aquatic organisms for food, e.g. mussels, crustaceans and aquatic invertebrates, rarely eat aquatic plants. Begin fall migration early September.

Eiders (King and Common)

Winter in northern waters in Alaska and Russia, rarely as far south as B.C. and Washington. Leave wintering areas in late April, arrive on breeding grounds early June. Common Eiders often nest in dense colonies on offshore islands or sometimes near tundra ponds distant from coast. King Eiders often nest in low densities, or semicolonially on islands, much farther from the coast. Common Eider clutch size ranges from 1 to 14 eggs, average about 4 to 6. King Eider clutch size ranges from 2 to 6 eggs, average about 5. Common Eiders incubate eggs about 24-26 days, King Eider about 22-24 days. Common Eider have been observed diving to about 10m (33 ft.) depth to feed, while King Eider feed in deeper water between 15 and 40 m. There is a record of a king eider diving about 55 m (181 ft.). Both prefer aquatic organisms for food, e.g. mussels, crabs, aquatic insect larvae and King Eiders will eat some aquatic plants. Begin fall migration as early as July (e.g. male king eiders) and runs through to late fall (immature birds).

Mergansers (Red-breasted and Common)

Winter along west and east coasts and Gulf of Mexico. Leave wintering grounds in late March, through late April, arrive in breeding areas mid-late May. Red-breasted Mergansers nest on ground with shelter of some sort, generally within 30m of water. Common Mergansers often nest in tree cavities, but also on the ground, usually close to water. Clutch size ranges from 3-20 eggs, average about 10. Red-breasted Mergansers incubate eggs 30-31 days, Common Mergansers, about 32-35 days. Both eat fish, aquatic insects, and amphibians. Fall migration begins mid-September.

Important Habitat

King Eider: east coast of Parry Peninsula

Common Eider: coast of Parry Peninsula, coast of Darnley Bay

Long-tailed Duck (Old Squaw): east coast of Parry Peninsula, coast of Darnley Bay

Surf Scoter: east coast of Parry Peninsula, coast of Darnley Bay, shallow bays along Arctic coast

White-winged Scoter: east coast of Parry Peninsula, coast of Darnley Bay,

Distribution in the ISR is not well understood.

Lesser and Greater Scaup: Mackenzie Delta, coastal areas

Wigeon: Mackenzie Delta and Old Crow Flats, Horton River

Northern Pintail: marshes of coastal lakes, near Darnley Bay, Hornaday Bay

Red-breasted Merganser: Horton River, Hornaday River

Common Merganser: coast of Darnley Bay

Management Plans/Agreements

North American Waterfowl Management Plan (NAWMP 2012).

Migratory Birds Convention Act (1917)

Sea Duck Joint Venture (formed under NAWMP)

Recent Research

Standardized annual breeding pair survey conducted jointly by CWS and US Fish and Wildlife. Migration and harvest of King Eiders, CWS

Dickson, D.L. 2012. Seasonal movement of Pacific Common Eiders breeding in arctic Canada. Technical Report Series 521, Canadian Wildlife Service, Edmonton, Alberta. 58 p.

Dickson, D.L. 2012. Seasonal Movement of King Eiders Breeding in Western Arctic Canada and Northern Alaska. Canadian Wildlife Service Technical Report Series Number 520, Canadian Wildlife Service, Edmonton, Alberta. 94p.

Research Priority

High: Local interest in biology, also concern here and elsewhere on impact of changing water levels and water quality.

King Eider

- Monitor King Eider numbers as part of multi-species surveys to determine population trends in the ISR.
- Determine the breeding range limits of the western arctic King Eider population using stable isotope analysis.

Common Eider

- Determine the reproductive success and annual survival of Common Eiders, including factors affecting productivity and survival.
- Locate critical habitat for brood-rearing Common Eiders.

All Species of Waterfowl

- Analyze, summarize and map harvest study data to determine the total harvest, spring staging areas, and the biological and management significance of these data.

Population Status		
King Eider:	592,000	(2004)
	371,000	(1996)
	802,000	(1976) (North America)
Pacific Common Eider:	110,500	(2004)
	73,000	(1996)
	153,000	(1976)
Long Tailed Duck:	314,216	(1988-2008 average)
	406,751	(1993-1998 average) (Western Canadian Arctic and Alaska)
Scoters:	1.1 million	(2002-2011 average)
	873,500	(1993-98 average) (North America)
Lesser Scaup:	4.6 million	2014 (North America)
Continental Goal:	6.2 million	
Wigeon:	3.1 million	2014 (North America)

Continental Goal:	3.0 million	
Northern Pintail:	3.2 million	2014 (North America)
Continental Goal:	5.6 million	

Population Trends

Scoters: decreasing

Scaups: decreasing

Pintails: decreasing

Mallards: fluctuating but stable

Wigeon: fluctuating but stable

Oldsquaw: decreasing

King Eider: decreasing

Common Eider: decreasing

Population Goal

Maintain thriving population for subsistence harvest.

NAWMP (2012) has a combined goal of 60 million ducks for 29 species of duck in North America. See above continental goals, based on NAWMP (2012).

Conservation Measures

- Do not disturb nesting birds.
- Harvest only what is needed.
- Identify and protect important habitats, including wintering areas, from disruptive land uses.

GEESE AND TUNDRA SWAN

Cackling Goose (*Branta hutchinsii hutchinsii*)

Canada Goose (*Branta Canadensis parvipes*) / Uluagullik

Snow Goose (*Chen caerulescens*) / Kanguq

White-fronted Goose (*Anser albifrons frontalis*) / Nirlig

Brant (*Branta bernicla*) / Nirlirnaq

Tundra swan (*Cygnus columbianus*) / Qugyuk

Biology

Timing of goose, brant and swan arrival and departure is closely associated with availability of open water and freeze up.

Cackling Geese – Cackling Geese and Canada Geese were identified as separate species in 2004. Cackling Geese are smaller than Canada Geese, they nest above the tree line and make up the majority of the birds in this area. They are part of "Mid-continent Cackling Geese" population. Winter central U.S. to Colorado and Texas. Arrive in May. Wide variety of nest sites. Average clutch size about 4-5 eggs. Incubate eggs about 26 days. Feed on grasses, sedges, berries, seeds, cereal grains. Leave early September.



Canada Geese - Slightly larger than Cackling Geese, Canada Geese nest below the tree line and are present in smaller numbers in the Inuvialuit Settlement Region mainly as non-breeders that migrate north to molt.

Snow Geese - Local birds part of Western Arctic Population. Winter California and Mexico. Arrive mid-May. Lay 2-10 eggs (average 6) first week of June. Incubate approximately 22-33 days, off nest first week of July. Feed on terrestrial and aquatic vegetation. Leave early September. Western Arctic Population designated as overabundant by CWS in 2014, in order to hopefully stabilize the population and prevent habitat damage as observed in Midcontinent Snow Goose colonies.

White-fronted Geese - Also known locally as "Yellow legs". Winter in Coastal Texas, Mexico. Leave winter grounds early February through March, arriving Mackenzie Delta mid May through early June. Nest in coastal and upland areas. Typically less down used in nest than other geese. Lay 2-10 eggs, average about 5. Incubate eggs 23-25 days. Feed on seeds and grass.

Brant– Two populations of Brant breed in the ISR, Black Brant and Western High Arctic (Grey-belly) Brant, referred to collectively as Pacific Brant. Winter along Pacific Coast Mexico to B.C. Arrive late May, early June. Nest close to water. Lay 1- 10 eggs, average 3-5 eggs, approximately second week of June. Incubate eggs about 24 days, off nest late July. Some local observation that brant will nest near snowy owls to avoid fox predation.

Swans - Local nesting birds are from the Eastern Population. Winter east coast U.S. Arrive mid-May. Lay 2-6 eggs (average 5) in June. Remain on nest until mid-August and remain in vicinity

until fall migration. Prefer marshy areas, aquatic plants. Fall migration in September.

Traditional Use

Very important food source in spring, down from waterfowl also traditionally used in pillows and blankets.

Important Habitat

Tundra Swan: coastal lakes around Darnley Bay; Parry Peninsula; inland freshwater lakes;

White-fronted Goose: Brock River to Paulatuk; inland lakes of Parry Peninsula (“the Flats”)

Cackling Goose: nesting on coastal islands near Pearce Point; nesting on islands and cliffs of Parry Peninsula; “The Flats” of Parry Peninsula; along coastal area of Darnley Bay.

Lesser Snow Goose: from Brock River to the “Flats”, around Darnley Bay, to Bennett Point.

Brant: Paulatuk area; Brock River; Fish Lake area

Management Plans/Agreements

Canada, Mexico and U.S. Migratory Birds Conventions (1916 and 1936). North American Waterfowl Management Plan (NAWMP 2012).

Arctic Goose Joint Venture (part of NAWMP).

Co-management Plan for Caribou, Muskox, Arctic Wolves, Snow Geese & Small Herbivores on Banks Island (Draft - 2000).

Draft Pacific Coast Brant Management Plan (1991).

Eastern Tundra Swan Management Plan

White Front Goose Management Plan

Recent Research

- Population of Brant on the Mainland of the ISR, CWS
- Productivity of Lesser Snow Geese, Banks Island, CWS
- Monitoring of Snow Goose Habitat on Banks Island, CWS
- Impact of Harvest on Snow Goose Populations in the ISR, CWS
- Hines, J.E., P.B. Latour, C.S. Machtans. 2010. The effects on lowland habitat, breeding shorebirds and songbirds in the Banks Island Migratory Bird Sanctuary Number 1 by the growing colony of lesser snow geese (*Chen caerulescens caerulescens*). Occasional Paper no. 118, Canadian Wildlife Service, 42 p.
- Obst, J., J. E. Hines, J.-F. Dufour, P. F. Woodard, and R.G. Bromley. 2013. Habitat Conditions, Grizzly Bear Predation of Nests, and Spring Use of the Anderson River Delta by Lesser Snow Geese and Brant, 2005–2006. Technical Report Series No. 523, Canadian Wildlife Service, Yellowknife, NT.

Research Priority

High - The community is interested in knowing more about the biology and ecology of these species. Improving census methods, and identifying important habitat.

White-fronted Goose

- Repeat a subset of aerial transects to determine the population trend in the ISR. (Multi-species surveys)

Snow Goose

- Habitat studies to determine impact of snow geese on the lowland habitat of Banks Island, and to develop a long-term goal for the population.
- Evaluate impacts of increased spring harvest on the different colonies
- Delineate areas where Banks Island geese can be selectively harvested by the mainland communities without impacting the small colonies
- Monitor continuing eastward shift of migrating and wintering geese.
- Carry out air photo surveys at 5-year intervals to document population trends at the three Western Arctic colonies.

Brant

- Complete analysis and write-up of recent studies of the distribution, abundance, survival rates and productivity of brant in the ISR.
- Evaluate the impact of grizzly bear predation and other factors on the colonies of brant and snow geese at Anderson River.

Population Status

<u>Tundra Swan - E. Pop'n</u>	105,000 (2014 mid-winter count) 84,000 (1993-98) (North America)
Continental Goal	80,000
<u>White-fronted Goose</u>	891,732 (2012 and 2014 average) (North America) 70,000 (1989-93) (ISR) 797,000 (1992-98 average) (North America)
Continental Goal	320,000
<u>Lesser Snow Goose</u>	420,128 (2013) (ISR) 486,000 (1995) (ISR) 169,600 (1976) (ISR)
Western Arctic Goal	200,000 breeding population
<u>Cackling Goose</u>	687,000 (2002-2011) (mid-winter count, North America)
Canada Goose	164,000 (2004-2013) (Waterfowl Breeding Population and Habitat Survey for boreal habitat in AB, SK, MB, and NWT)
<u>Brant</u>	163,300 (2013 midwinter index) 137,400 (1993 winter average) (North America)
Continental Goal	162,000 (Goal for Black Brant = 150,000; Western High Arctic Brant = 12,000)
<u>Population Trends</u>	
Canada Geese	Increasing
Lesser Snow Geese	Increasing
White-Fronted Geese	Stable
Brant	Stable
Swans	Stable

Population Goal

See continental goals above, based on the North American Waterfowl Management Plan, (NAWMP 2012).

Conservation Measures

- Identify and protect important habitats, including wintering areas and key resting sites, from disruptive land uses.
- Do not harvest more than is needed.
- Support North American Waterfowl Management Plan (1986) and Arctic Goose Joint Venture.
- Support the "Principles for the Conservation of Migratory Birds in the Inuvialuit Settlement Region" WMAC (NWT).

LOONS

Common Loon (*Gavia immer*) / **Tuutlik**

Yellow-billed or King Loon (*Gavia adamsii*)

Pacific Loon (*Gavia pacifica*) / **Malri**

Red-throated Loon (*Gavia stellata*) / **Qaqsauq**

Biology

Arrive in May 1 - 2 eggs laid in June, migrate south in September. Feed on small fish. Arctic and Red-throated arrive mid-June, leave late August early September. Pacific and Red-throated Loons are more numerous in the ISR and will nest on smaller, shallower tundra ponds than the other 2 species.

Important Habitat

Common Loon: Hornaday River

Red-throated loon: Coastal lakes of Darnley Bay King loon, Hornaday River, Horton River

Yellow-billed Loon: mostly found on the ocean, Hornaday River (distribution in the ISR is not well-documented)

Pacific Loon: Hornaday River

Management Plans/Agreements

Migratory Bird Convention Act

Recent Research

Barr, J.F. 1997. Status report on the yellow-billed loon, *Gavia adamsii*, in Canada. COSEWIC.

Dickson, D.L. 1988. Monitor reproduction and life history of Red-throated Loons in event of pollution. CWS.

Dickson, D.L., 1992. The Red-throated loon as an indicator of environmental quality. CWS. Occasional Paper No. 73.

Dickson, D.L, 1993. Breeding biology of red-throated loons in the Canadian Beaufort Sea Region. Vol. 46, No. 1.

Vogel, H. 1997. COSEWIC status report on the common loon (*Gavia immer*) in Canada. COSEWIC.

Dickson, D.L. and J. Beaubier. 2011. Red-throated Loon monitoring in the southeast Beaufort Sea region: 2007–2008 update. Technical Report Series Number 517, Canadian Wildlife Service, Edmonton, Alberta. 38 p.

Research Priority

High: Community interested in more information on biology.

Population Status

Local indigenous observation suggests that Yellow-billed loons used to be abundant now are less so.

Population Goal

Thriving population.

Conservation Measures

- Do not disturb nesting birds.
- Identify and protect important habitats from disruptive land uses.

PTARMIGAN (*Lagopus spp.*) / AQIJGIVIK
Rock Ptarmigan (*Lagopus mutus*) / Niksaaktualuk
Willow Ptarmigan (*Lagopus lagopus*) / Aqijgivik

Biology

Birds breed in early May, and females lay eggs in June. Willow ptarmigan lay 5-10 eggs, rock ptarmigan lay 6-15 eggs.

Traditional Use

Ptarmigan are a well-liked food source within the community.

Important Habitat

Throughout the planning area.

Management Plans/Agreements

None.

Research Priority

Low.

Population Status

Varies from year to year.

Population Goal

Unspecified though community would be interested in having more around.

Conservation Measures

- Identify and protect important habitats from disruptive land uses.



Trevor Lucas

SANDHILL CRANE (*Grus canadensis*) / TATIJGAQ

Biology

Winters in southern U.S. to Mexico. Arrive end of April or early May before snow geese. Nest is grass mound in marsh or wet meadow. Lay 2 eggs around middle of May, hatching in mid-June. Feed on insects, lemmings, aquatic plants, grains, amphibians. Observed scavenging on carcasses and at garbage dumps. Fall migration late August early September.

Traditional Use

Seldom harvested by community members. Fewer and fewer harvested every year.

Important Habitat

Wet tundra areas, uplands areas

Management Plans/Agreements

Migratory Bird Convention Act

Recent Research

Austin, J. 1997. Delineation of Sandhill Crane subspecies and their distribution. 1996-1997. Canadian Wildlife Service.

Reed, J.R. 1988. Arctic Adaptations in the Breeding Biology of Sandhill Cranes, *Grus canadensis*, on Banks Island, Northwest Territories. In Canadian Field-Naturalist, 102(4): 643-648.

Research Priority

Unspecified.

Population Status

Appear to be increasing.

Population Goal

Unspecified.

Conservation Measures

- Do not disturb nesting birds.
- Identify and protect important habitats from disruptive land uses.

EAGLES

BALD EAGLE (*Haliaeetus leucocephalus*)

GOLDEN EAGLE (*Aquila chrysaetos*) / **Tingmiaqpak**

Biology

Bald Eagle

Bald eagles are more common in the Delta than outlying areas. They usually nest in trees, beginning in April-May, and incubate eggs approximately 34-35 days. Young leave nest (fledge) by 70- 80 days. Bald Eagles feed primarily feed on fish, often dead or dying fish. Birds begin fall migration in September.

Golden Eagle

Golden Eagles are much more common in Richardson Mountains than Bald Eagles. Goldens use both cliff and tree nests and begin nesting in April-May. Goldens incubate their eggs for approximately 35-45 days, producing 1-2 young per year that leave the nest (fledge) after 65-75 days. Primarily feeding on rabbits, hares, ground squirrels, goldens will occasionally prey on young of larger mammals. Goldens have a late fall migration.

Important Habitat

Coastal areas with suitable cliff nesting sites.

Management Plans/Agreements

None.

Research Priority

Moderate - Community interested in ecological relationship, role in food chain.

Population Status

Golden Eagles have also been more common in Delta in early 1990's but less common than bald eagles.

Population Goal

Unspecified.

Conservation Measures

- Do not harass or disturb nesting birds.
- Do not export birds.
- Identify and protect important habitats (including southern wintering habitat) from disruptive land uses.

PEREGRINE FALCON (*Falco peregrinus anatum*) / KIJGAVIK
GYRFALCON (*Falco rusticolus*) / KIJGAVIK
ROUGH LEGGED HAWK (*Buteo lagopus*) / QILGIQ

Biology

Peregrine Falcon nest in cliffs, laying 2-4 eggs and feed on small to medium sized birds.

Gyrfalcon nest in cliffs and occasionally trees, laying 3-4 eggs. They feed on ground squirrels, ptarmigan, and occasionally hare. Populations cycle with prey availability.

Rough-legged Hawk nest on cliffs, laying 2-5 eggs. They feed on lemmings, and ground squirrels.

Important Habitat

Coastal areas with suitable cliff nesting sites. Hornaday & Brock river canyons

Management Plans/Agreements

GNWT and Yukon Birds of Prey Regulations.

Convention on International Trade in Endangered Species (CITES); Peregrine Falcon - Appendix 1.

Research Priority

Moderate - Interest in ecological relationships, role in food chain.

Population Status

Unknown in the Paulatuk area

Population Goal

Unspecified, adequate numbers at present.

Conservation Measures

- Do not export.
- Do not harass or disturb nesting birds.
- Identify and protect important habitats from disruptive land uses.

SNOWY OWL (*Nyctea scandiaca*) / UKPIK

Biology

Most snowy owls migrate to region in spring, however, a few may overwinter. Owls arrive in April, and nest mid to late May, preferably on elevated ground. They typically lay 5-7 eggs, with some reports of 12 and incubation is 32 to 33 days. Birds are off nest in late August. Snowy Owls feed on lemmings, birds, and fishes. Owl numbers are usually low but are variable year to year and appear to have ecological association with brant.

Traditional Use

Have been used as food in past.

Important Habitat

Coastal Areas.

Management Plans/Agreements

None

Research Priority

Low.

Population Status

Appear to be decreasing, though some sense they were abundant in 1991. Population appears to be high in some years and low in others.

Population Goal

Unspecified. Adequate numbers for community needs.

Conservation Measures

- Hunt only when needed.
- Identify and protect important habitats from disruptive land uses.

BIRD SPECIES LIST

At least 125 species of birds may visit and nest in the mainland western arctic portions of the ISR. Some may only rarely occur and do not routinely breed in the area. A list of birds which may occur in the area is presented below. These species are important components of the ecosystem, contribute to the quality of life in the area and are an attraction for tourists. Many of these species migrate to wintering areas outside of the ISR, their conservation depends on cooperative work with people outside the region.

Species	Wintering Areas
Alder Flycatcher	South America.
American Wigeon /	West and south U.S. to South America and Caribbean.
American Robin	U.S. to Mexico.
American Tree Sparrow	Southern Canada to central U.S.
Arctic Tern / Mitqutailaq	Sub-Antarctic seas.
Baird's Sandpiper	South America.
Bald Eagle	Southwest Canada, west and central U.S.
Bank Swallow	South America.
Black Guillemot	Pacific Ocean (at sea).
Black-bellied Plover	Coastal U.S. to Southern Hemisphere.
Blackpoll Warbler	South America.
Bohemian Waxwing	Southern Canada, U.S.
Bonapartes Gull	West coast U.S. to Mexico.
Boreal Chickadee	Boreal Forests North America.
Brant / Nigilnaq	Local concentrations on Pacific coast.
Buff-breasted Sandpiper	South America, especially Argentina.
Canada Goose / Uluagulik	North Mexico north to limits of open water.
Canvasback	West and east coast U.S. to Mexico.
Cliff Swallow	Southern Brazil, central Argentina.
Common Loon / Tuutlik	West coast North America.
Common Goldeneye	West Coast Canada and U.S. central U.S.
Common Eider / Qaugaq	West coast of Alaska and Aleutians.
Common Snipe	Southwest coast Canada, U.S., Brazil.
Cowbird (Brown-Headed)	California, S. Arizona
Dark-eyed Junco	Southern Canada, U.S.
Dunlin	West coast Canada and U.S.
Fox Sparrow	Southern U.S. and west coast U.S.
Glaucus Gull (Ross's Gull) Nautavatkusiq	West coast of Alaska, Canada, U.S. to southern California.
Golden Eagle / Tingmiaqpak	B.C., Alberta, Saskatchewan, U.S.
Gray Jay	Boreal forests North America.
Gray-cheeked Thrush	Caribbean to Brazil.
Green-winged Teal	Mid-U.S. south to Argentina.
Gyr Falcon	West coast of Alaska and northern B.C.
Harlequin Duck	West coast Canada and U.S.
Harris's Sparrow	Southwestern Canada, U.S.
Herring Gull	West coast Canada and U.S.
Horned Grebe	West coast North America.
Horned Lark	Vancouver Island, Mexico, South America.
Iceland Gull	Great Lakes and east coast to Maryland.
Killdeer	South and central U.S. to central Mexico, Peru.
King Eider / Qingalik	Aleutians and northern west coast of North America.
Lapland Longspur	Southern Canada to southern U.S.
Least Sandpiper	Southern U.S. to Brazil.
Lesser Golden Plover	Mainly east of Rockies, southern South America.
Lesser Yellowlegs	Southern U.S. to Argentina.
Long-billed Dowitcher	West coast U.S. to Guatemala.
Long-tailed Jaeger	Migrant at sea, well off-shore, Southern Hemisphere.

Mallard / Kurugakpak	Southern Canada to Mexico.
Marsh Hawk	SW Canada, central U.S. to South America.
Merlin	Southern Canada
Mew Gull	West coast Canada and U.S.
Northern Flicker	West coast Canada, U.S.
Northern Fulmar	Off coast of western North America to northern Mexico.
Northern Goshawk	Year round resident, though may move.
Northern Hawk Owl / Naiquqtauruk	South to western Oregon, Idaho, Wyoming, Nebraska.
Northern Pi	Along Pacific coast, southern U.S. to northern S. America.
Northern Shoveler	West and south U.S. to South America.
Northern Shrike	Southern Canada to U.S.
Northern Waterthrush	Central and South America.
Oldsquaw / Aahaanliq	Aleutians and west coast of North America.
Orange-crowned Warbler	Southern U.S. to Guatemala.
Pacific Loon / Malri	Along coast S.E. Alaska to N.W. Mexico.
Parasitic Jaeger	At sea from southern U.S. to Tierra del Fuego.
Pectoral Sandpiper	South America.
Peregrine Falcon / Kijgavik	Springly along west coast of Canada and throughout U.S.
Pine Grosbeak	Western N.W.T., Yukon, Alaska, B.C., Rocky Mountains.
Pomarine Jaeger	At sea from southern U.S. to southern hemisphere.
Raven	Year round in North America - widespread.
Red Knot	Coast of southern U.S., Mexico, also S. Hemisphere.
Red Phalarope	Coast of California south, range at sea poorly known.
Red-breasted Merganser	West coast Canada and U.S.
Red-necked Grebe	West coast North America.
Red-necked Phalarope	Pacific Ocean (at sea).
Red-tailed Hawk	U.S.
Red-throated Loon / Qaqsauq	Along coast to northern Mexico and Florida.
Red-winged Blackbird	Northern U.S. south.
Redpoll	N.W.T., Yukon, Alaska, central Canada
Rock Ptarmigan / Niksaaktualuk=	Some withdrawal from higher to lower elevations.
Ross' Goose	Mainly in SW U.S.
Rosy Finch	Southwestern Canada, west central U.S.
Rough-legged Hawk / Qilgiq	Southern Canada to southern U.S. but rarely to Mexican
Ruby-crowned Kinglet	Southern U.S. to Guatemala.
Ruddy Turnstone	Coastal U.S., Hawaii.
Rusty Blackbird	Southeastern U.S.
Sabine's Gull	In Pacific to Chile, local in Atlantic.
Sanderling	West coast of North America.
Sandhill Crane / Tatigaq	Mexico, locally in southern U.S.
Savannah Sparrow	Southern U.S. to Honduras and Caribbean.
Say's Phoebe	Southern U.S. to Mexico.
Scaup (Greater)	West coast of Canada and locally throughout U.S.
Scaup (Lesser)	West coast of U.S., southern U.S. to northern S. America.
Scoter (Surf or White-winged)	Aleutians and along Pacific coast.
Semi-palmated Plover	West coast of southern North America to South America.
Semi-palmated Sandpiper	Mainly east of Rockies to South America.
Sharp-shinned Hawk	Northern U.S. to South America.
Short-ear	Southern U.S. to central Mexico.
Smith's Longspur	South central U.S.
Snow Bunting	West coast and central North America, in open country.
Snow Goose / Kangua	North Mexico, Gulf Coast, migrant through interior.
Snowy Owl / Ukpik	Cyclic winters to central U.S., Canada except Arctic.
Solitary Sandpiper	Gulf of Mexico to Argentina
Spotted Sandpiper	Southern U.S. to Argentina.
Stilt Sandpiper	Southern U.S. to Argentina.
Tennessee Warbler	Mexico to Venezuela.
Three-toed Woodpecker	West. N.W.T., Yukon, Alaska, N. provinces, Rocky Mtns.
Tree Swallow	Southern U.S. to northern South America.

Tundra Swan / Qugyuk	Seaboards of eastern and western North America, end of Alaskan peninsula and locally throughout U.S.
Upland Sandpiper	Argentina.
Varied Thrush	West coast Canada and U.S.
Wandering Tattler	S.W. Coast to U.S. to Ecuador.
Water Pipit (American)	West coast of U.S., southern U.S. south to El Salvador.
Whimbrel	West coast of S. North America to S. South America.
White Fronted Goose / Nirliq	Mexico, Gulf states and occasionally north to Washington.
White-crowned Sparrow	Southwestern Canada, U.S.
White-rumped Sandpiper	South America.
White-winged Crossbill	Western N.W.T., Yukon, Alaska, northern Alberta, B.C.
Willow Ptarmigan / Qarigiq	Resident year-round.
Wilson's Warbler	Mexico to Panama.
Yellow Warbler	Mexico to Peru.
Yellow-billed Loon / Qaqauq	Along coast of northwestern North America.

ARCTIC CHAR (*Salvelinus alpinus*) / Iqalukpik

Biology

The Arctic char is present as both a sea-run and landlocked form. There are some external characteristics, which can be used to differentiate between Arctic char and Dolly Varden. Arctic char generally have a shorter head and snout, a trait particularly evident in spawning males. The tail of an Arctic char has a slightly deeper fork than that of a Dolly Varden, and the base of the Arctic char's tail is narrower.

Spawning occurs in freshwater during late September and early October, at about the same time that the winter ice forms. At spawning time the adults take on their characteristic spawning features and colours. Spawners are easily recognized because they change from silver to orange, red, and often to deep vermilion. Also, the leading edges of the lower fins turn white, and males develop a protruding hook called a 'kype' on their lower jaw.

Adult char do not spawn each year, taking one or two resting years in between spawning years. They first start to make trips to sea at about age 3-5, depending on the system. Adult char are thought to spawn every second year, although this is likely variable depending on individual condition, environmental condition and age of this fish. Arctic char feed mainly on small fishes and benthic organisms.

It has been recently suggested that Capelin are key prey species in the near shore / coastal areas during the summer months.

Important Habitat

- Overwintering habitat for Hornaday River char: Mainstem Hornaday River, between Coalmine and Aklak Creek (in deep, >2m, groundwater fed pools), Nuvaqpaluq.
- Spawning habitat:
- Hornaday River char: Mainstem Hornaday River, between Coalmine and Aklak Creek (in deep, >2m, groundwater fed pools). Spawning char have been caught in the Seven Islands Lake and Rummy Lake systems, which drain into the Hornaday; tests completed in 1996/97 on a small sample (n=5) indicated these were landlocked char.
- Arctic Char usually spawn in water around 4°C, over gravel/rocky shoals in lakes or in pools in rivers at depths of 3-15 feet. Eggs develop buried in the gravel at temperatures of 0.0-2.2° ° C and cannot survive temperatures above 7.8° C.
- Coastal and nearshore Damley Bay – areas used for feeding and migration to spawning areas: Pearce Point, Hornaday River, Brock River, Argo Bay, Fish Lakes area, Lasard Creek



Management Plans/Agreements

- **Paulatuk Char Working Group & Char Management Plan**

The Paulatuk Char Working Group (PCWG), a group comprised of the fishers of Paulatuk, FJMC, DFO and Park's Canada representatives, meets annually to review harvest levels from the previous year, make research recommendations and determine voluntary harvest levels for the upcoming fishing season. The Paulatuk Char Management plan was first developed by the PCWG in 1998 and last updated in 2003. The next update will be completed by 2016. This plan outlines, critical habitats, biological information and conservation measures & strategies intended to foster the sustainable harvest of the Hornaday River char for generations to come. The specific goals outlined in the plan are as follows:

- To ensure a healthy stock(s) of the char in the Hornaday River and other char fishing locations in the Paulatuk area.
 - To preserve and protect char habitats in the Hornaday River and other char fishing locations in the Paulatuk area, to ensure that the char stocks continue to thrive
 - To manage and conserve Hornaday River and other char in the Paulatuk area to ensure that subsistence needs of the residents of Paulatuk are met, today and in the future.
- **Sport Fishing Restrictions:** Since August 1, 2013, sport fishing on the Hornaday River has been restricted to catch and release only for Arctic char, with the Daily Catch Limit and Possession Limit reduced from 1 to 0 (Fisheries and Oceans Canada Central and Arctic Region Variation Order No. NT-2013/2014 V-004). This restriction was recommended by the PCWG.

Research Priority

High

Recent Research

- Char Monitoring Program: Hornaday River (1990-present), Lasard River (2011-present)
- Fish and marine mammal community harvest surveys (1968-present)
- 'Blue Char' investigations: 'blue char' harvested at Tippi have been sampled since 2011 with preliminary results indicating that some genetic signatures are consistent with Dolly Varden char (*Salvelinus malma*), which are more common west of the Mackenzie River as well as in the eastern Arctic. Community members started catching 'blue char' around 20 years ago when more fishing was occurring on the coast.
- Radio tagging and tracking of char in Hornaday River in 1995-1996 and 1999: identified areas used by Hornaday River Arctic Char for overwintering, spawning and summer feeding.

Population Status

Stable – The Hornaday River Char show no indications of decline. Results from long-term monitoring programs show a broad distribution of size classes with a large proportion of fish >600mm, a higher proportion of males and stable growth rates, all of which indicate that current harvest levels are sustainable and the population is stable. Outputs from several modeling exercises conducted in 2014 estimate the total Hornaday River char population to be as high as 80,000 individuals with about 15,000 – 30,000 individuals that are large enough to be harvested.

Population Goal

Unspecified

Conservation Measures

- Paulatuk Char Working Group (PCWG) to review voluntary harvest levels supported through community monitoring efforts on an annual basis
- Catch and Release sport fishery on the Hornaday River

- Gear Restrictions
 - Gillnet mesh size not to be <4.5 inch (11cm)
 - Gill nets not to be longer than 46m (56yd)
 - No nets shall be left unattended
- Identification and protection of important habitats from disruptive land uses
- Identification and encouraged use of alternative fishing areas and species

References

- DFO. 1999. Hornaday River Arctic Charr. Science Stock Status Report D5-68..Available online via CSAS (Canadian Science Advisory Secretariat) at www.dfo-mpo.gc.ca/csas/Csas/status/1999/D5-68e.pdf.
- Harwood, LA. 2009. Status of anadromous Arctic charr (*Salvelinus alpinus*) of the Hornaday River, Northwest Territories, as assessed through harvest based sampling of the subsistence fishery, August-September 1990-2007. Can. Manuscr. Rep. Fish. Aquat. Sci. 2890: viii + 33 p.
- Kristofferson, A., Lewis, P.N.B., and Gillman, D.V. 1989. Draft Report. Status of the Arctic charr stock of the Hornaday River, Northwest Territories, 1973- 1986. Available: Central and Arctic Region, Dept. of Fisheries and Oceans, 501 University Crescent, Winnipeg, Manitoba. R3T 2N6.
- MacDonell, D.S. 1989. Report on the test fisheries conducted at the Hornaday, Brock and Horton Rivers in 1987-1988, and an evaluation of the Arctic charr fishery at Paulatuk, NWT. Prep. by North/South Consultants Ltd., for Fisheries Joint Management Committee and the Dept. of Fisheries and Oceans, Inuvik, NWT. 62 p.
- MacDonell, D.S. 1996. Hornaday River – Paulatuk, NT. Arctic charr spawning location study. Prep. by North/South Consultants Inc. for the Dept. of Fisheries and Oceans, Inuvik, NT, Canada. 21 p.
- MacDonell, D.S. 1997. Hornaday River – Paulatuk, NT. Arctic charr spawning location study – August-September 1997. Prep. by North/South Consultants Inc. for the Dept. of Fisheries and Oceans, Inuvik, NT, Canada. 25 p.
- Reist, J.D., Johnson, J.D and T.J. Carmichael, 1992. Variation and specific identity of charr from northwestern Arctic Canada. Special Proceedings of the American Fisheries Society Conference on "Fish Ecology of Arctic North America". Fairbanks.
- Roux, M.-J., Harwood, L. A., Illasiak, J., Babaluk, J.A., and de Graff, N. 2011. Fishery resources and habitats in a headwater lake of the Brock River, NT, 2003-2005. Can. Manuscr. Rep. Fish. Aquat. Sci. 2932: viii + 61 p.
- Sawatsky, C. D. and Reist, J.D. 2008. The State of Char in the Arctic. Arctic Report Card, 2008. Convention on Arctic Flora and Fauna.

ARCTIC CISCO (*Coregonus autumnalis*)

Biology

The Arctic cisco is the most saline-tolerant of the anadromous coregonids and is thus found more often and further from the Mackenzie basin than the other species. It is distinguishable from the least cisco by smaller eyes and scales, more silver colour, white pectoral and pelvic fins, and terminal mouth (at the tip of the body). The Arctic cisco is found in arctic Canada and Siberia. They are common along the Yukon coast and in the Mackenzie Delta during summer. The food fishery targets Arctic cisco during its departure or return from overwintering areas, such as in Tuktoyaktuk Harbour, and during spawning migrations during fall. They are believed to spawn only in the large tributaries of the Mackenzie River or in the Mackenzie itself. Spawning probably takes place over gravel in fast water areas such as rapids. They reach a maximum length of near 38 cm (15 in.) and may live for up to 20 years. Arctic cisco feed on small fish and crustaceans.

Management Plans/Agreements

None.

Research Priority

Community considers research on the biology and ecology of these species a moderate priority.

Population Status

Abundant.

Population Goal

Adequate supply at present.

Conservation Measures

- Identify and protect important habitats from disruptive land uses.
- No drilling in areas where these species concentrate for spawning or migration.
- Ensure all oil related activities are closely monitored.

References

- Dillinger et al. 1992. Can Field Nat 106: 175-180. *Arctic cisco distribution, migration and spawning in the Mackenzie River.*
- Harwood, L. 1997. Measurement and tagging of arctic cisco in Tuktoyaktuk Harbour to test the netting program. DFO.
- Harwood, L.A., Pokiak, F., and Walker-Larsen, J. 2008. Assessment of subsistence fishery and biological data for Arctic cisco in Tuktoyaktuk Harbour, NT, Canada, 1997-1999. Can. Manusc. Rep. Fish. Aquat. Sci. 2845: ix + 31p.



ARCTIC GRAYLING (*Thymalus arcticus*) / SULUKPAUGAQ

Biology

Distributed throughout northern regions of western provinces, NWT, Yukon, Alaska. Prefers clear water and avoids muddy parts of Mackenzie River. Spawns in smaller streams at beginning of spring break-up. Prefer gravel or rocky areas to spawn. Females may spawn in one or several places in a given spawning season. Adults return to lakes or rivers after spawning. Most grayling do not spawn until 6-9 years of age. Individuals may not spawn every year. Maximum size about 2.7 kg (6 lb). Feed on terrestrial and aquatic insects, occasionally fish, fish eggs, crustaceans, lemmings.

Important Habitat

Hornaday River

Management Plans/Agreements

None.

Recent Research

Some grayling were tagged in the Babbage River in fall 1992 as part of FJMC sponsored project.

Research Priority

Unspecified.

Population Status

Locally common in certain streams.

Population Goal

Adequate supply at present.

Conservation Measures

- Harvest only what is needed.
- Identify and protect important habitats from disruptive land uses.

References

- Stewart, D.B., Mochnacz, N.J., Reist, J.D., Carmichael, T.J., and Sawatzky, C.D. 2007. Fish life history and habitat use in the Northwest Territories: Arctic grayling (*Thymallus arcticus*). Can. Manuscr. Rep. Fish. Aquat. Sci. 2797: vi + 55 p.
- Stewart, D.B., Mochnacz, N.J., Reist, J.D., Carmichael, T.J., and Sawatzky, C.D. 2007. Fish diets and food webs in the Northwest Territories: Arctic grayling (*Thymallus arcticus*). Can. Manuscr. Rep. Fish. Aquat. Sci. 2796: vi + 21 p.



Colin Gallagher

BLUE or PACIFIC HERRING (*Clupea pallasii*) / PIQQUAQTITAQ

Biology

Pacific herring are true marine fish and can be identified from other “herring” species (Arctic and least ciscos) by the absence of the adipose fin (a small fleshy “knob” posterior to the dorsal fin) found on salmon, char, grayling, whitefish, coney and ciscos. Pacific herring are very important to the coastal waters of the Beaufort Sea and are utilized by people in the community of Tuktoyaktuk. Pacific herring are preyed upon by beluga whales, seals and a large number of marine and anadromous fish species. Pacific herring spawn around the time of ice break-up (late June) in the deep coastal bays in which they have over-wintered. Tuktoyaktuk Harbour is a major overwintering area. Spawning is confined to shallow, vegetated areas in the intertidal and subtidal zones. Following spawning, they disperse throughout the Beaufort for feeding and return to overwintering sites beginning in late August. Herring probably spawn every year after reaching sexual maturity at about 6-7 years of age in this area. The number of eggs varies with the age/size of the fish and averages 20,000 annually. Average life span for these fish is up to 16 years in the Bering Sea. Their food consists of small fish, crustaceans and copepods.

Important Habitat

Coastal area near Paulatuk, Hornaday River.

Management Plans/Agreements

None.

Recent Research

FJMC North Slope Stock Identity Study (Charr and Cisco) conducted in 1989.

Research Priority

Community considers research on the biology and ecology of these species a **low** priority.

Population Status

Abundant.

Population Goal

Adequate supply at present.

Conservation Measures

- Identify and protect important habitats from disruptive land uses.
- No drilling in areas where these species concentrate for spawning or migration.
- Ensure all oil related activities are closely monitored.

BROAD WHITEFISH (*Coregonus nasus*) / AANAAKLIQ

Biology

Distributed in fresh and brackish waters of arctic drainages of northwestern North America and northern Eurasia, south to approximately the 60th parallel. Spawning mainly occurs over gravel areas in rivers in October or November. Downstream migration of post-spawning fish may occur gradually over the winter. Maturation occurs at approximately seven years of age. Broad whitefish are more frequently encountered in rivers than lakes, although distinct anadromous and non-migratory lake dwelling stocks (e.g., Wolf Lake) are known from the Mackenzie River basin. Additionally broad whitefish are often found in coastal areas of the Beaufort Sea (e.g., Shingle Point). Diet includes aquatic insects, small molluscs and crustaceans. They contain a strong organ similar to a bird gizzard that aids in the digestion and breakdown of shelled organisms. It is a deep-bodied fish with a blunt snout and short head. Average length is near 45 cm (18 in.).

Important Habitat

Coastal areas of the Beaufort Sea

Management Plans/Agreements

None

Research Priority

Unspecified.

Population Status

Locally abundant.

Population Goal

Maintain abundant population to support subsistence harvest.

Conservation Measures

- Only harvest what is needed.
- Identify and protect important habitats from disruptive land uses.

References

- Freeman, M.M.R. and Stevenson, M.G. 1995. "They knew how much they needed": Inuvialuit traditional knowledge and the Broad Whitefish. Canadian Circumpolar Institute, University of Alberta, Edmonton, AB.



CONEY or INCONNU (*Stenodus leucichthys*) / SIIGAQ

Biology

Found in northwestern North America and in arctic drainages of Asia. In northern Canada it ranges as far east as the Anderson River. Spawning believed to occur in late summer or early autumn. Individual females are believed to spawn every two to four years. Following spawning there appears to be downstream migrations. Migrates from sea or lakes to fresh water streams. Weight may exceed 29 kg (64 lb). Young feed on aquatic invertebrates, adults feed on fish.

Important Habitat

Unknown for Paulatuk Area

Management Plans/Agreements

None.

Recent Research

None.

Research Priority

Unspecified.

Population Status

Uncommon.

Conservation Measures

- Harvest only what is needed.
- Identify and protect important habitats from disruptive land uses.



JACKFISH or NORTHERN PIKE (*Esox lucius*) / SIULIK

Biology

Northern pike, also called “jackfish”, are present in most waters of the western Arctic. The northern pike has a long, streamlined body and rows of sharp teeth in an “alligator” type mouth. Pike are typically considered non-migratory although on occasion they have been noted to move large distances (100 km (161 mi.)). Northern pike spawn on aquatic vegetation in early spring, sometimes before the ice has melted. Pike are voracious and opportunistic feeders, feeding mainly on fish, but also consuming muskrats and ducklings. Preferred habitats are lakes and the warm, clear main channels of rivers or slack water areas. They have also been observed in the brackish waters of Husky Lakes and Mackenzie Estuary. Maximum weight of pike is likely near 20 kg (44 lb) in North America, although there are many unconfirmed reports of larger fish. Pike may live 24-26 years in this area.

Important Habitat

Near tree line - Granet Lake, Tadenet Lake, Deleuse Lake

Management Plans/Agreements

None.

Research Priority

Unspecified.

Population Status

Common in treeline lakes.

Conservation Measures

- Harvest only what is needed.
- Identify and protect important habitats from disruptive land uses.
- Harvest within quota where one has been established.

LAKE TROUT (*Salvelinus namaycush*) / IQALUAQPAK

Biology

Lake trout are most common in large, deep lakes, but are occasionally captured in rivers, brackish (salty) water, and the ocean. Lake trout are slow growing, fall spawning fish (early-September) that, unlike salmon and other char, do not build redds for their eggs. Spawning typically occurs over windswept shoals of lakes at depth greater than 2 m to avoid ice scouring and is rarely observed in rivers. Spawning takes place over clean, rocky lake bottoms, most often at night. Eggs hatch before ice breakup and the young live off a yolk sack until they are able to feed on zooplankton. Lake trout are long-lived (50+ years) and the largest of the local chars, potentially weighing over 20 kg (44 lb.). Sexual maturity is reached at different ages in different areas, but in many Arctic populations, spawning may not take place until fish reach 13-16 years. Mature lake trout have been observed to skip spawning between years to save up energy reserves. In most areas, lake trout feed on cisco, smelt, sticklebacks, sculpins, plankton and crustaceans and food preferences can shift throughout life and vary between lakes. Lake trout are distinguished from other char and salmon by their deeply forked tail, light-coloured spots, and worm-like pattern on their backs. During spawning some lake trout fins can become dark red in colour with a white stripe on the edge. Their bellies also can change to dark red, orange or yellow similar to other char. Because of the lake trout's slow growth, late maturation, skipped spawning events and selectivity of spawning habitat, they can be very sensitive to ecological disturbances.

Important Habitat

Hornaday River, Brock Lake, coastal lakes around Darnley Bay and all inland lakes.

Management Plans/Agreement

HTC Bylaw requires minimum 11 cm (4.5 in.) mesh size on nets.

Recent Research

None.

Research Priority

High: The community is very interested in knowing more concerning the biology and movement of lake trout in the area and in monitoring water quality where lake trout are harvested.



Population Status

Appears to be stable though no formal studies to date. Common in lakes near Paulatuk.

Population Goal

Unspecified. Maintain adequate population to support current harvest.

Conservation Measures

- Where commercial fishing is undertaken mesh size should be no smaller than 14 cm (5.5in.)
- Ensure harvest is sustainable.
- Do not take more than is needed.
- Identify and protect important habitats from disruptive land uses.

LEAST CISCO or BIG-EYED HERRING (*Coregonus sardinella*) IQALUSAAQ

Biology

The least cisco is common in the lower Mackenzie Delta and almost all lakes and rivers. Least cisco are much less migratory than the Arctic cisco and in coastal areas tend to be associated with the plume of their home river. The least cisco has a weak lower jaw that projects beyond the upper and has a larger eye than the Arctic cisco. Adults are brown to olive green and silvery below. Least cisco reach sexual maturity at 6-7 years of age. Mature least cisco migrate upstream in the fall to spawn in clear streams with gravel bottoms. Spawning takes place in early October. Least cisco found in lakes seldom exceed 23 cm (9 in.), while those in the Mackenzie River or coastal areas reach almost 40 cm (16 in.) in length. Least cisco are very important in the food chain, as they are eaten by predacious coney, pike, and burbot and undoubtedly, a large number of mammals and birds.

Important Habitat

Nearshore in Paulatuk Harbour during fall months

Management Plans/Agreements

None.

Research Priority

Community considers research on the biology and ecology of these species a moderate priority.

Population Status

Abundant.

Population Goal

Adequate supply at present.

Conservation Measures

- Identify and protect important habitats from disruptive land uses.
- No drilling in areas where these species concentrate for spawning or migration.
- Ensure all oil related activities are closely monitored.

LOCHE or BURBOT (*Lota lota*) / TIKTAALIQ

Biology

Burbot, along with Northern Pike are the most widely distributed freshwater fish in the world, and are the only freshwater member of the cod family, and are one of few Canadian freshwater fish species that spawns in mid-winter (January-March) under the ice. Burbot usually spawn at night in less than 3 m (10 ft.) of water lakes or slow sections of rivers. Burbot call at spawning time, these calls attracts other burbot. Males arrive to at spawning areas before females, and spawning often takes place in large groups. Each female can release hundreds of thousands of eggs. Burbot are a top-level predator and important to the aquatic ecosystem. Young burbot feed primarily on aquatic insects, while adult burbot are voracious fish predators. In the Mackenzie Delta young burbot and Northern Pike are an important part of the diet of adult burbot. The average size of an adult burbot is about 5 lbs. and 75 cm, however individuals of over 25 lbs. have been reported.

Burbot have large fatty livers have traditionally been used as a high-energy, nutritious, vitamin rich food for people living along the lower Mackenzie River and Mackenzie Delta. Burbot are often targeted by local fishers in early winter at the mouths of creeks where they come to feed before spawning.

Important Habitat

Hornaday River, Thrasher Lake; some lakes near tree line.

Burbot live in a variety of habitats including creeks, lakes, and large rivers. Burbot have found in brackish waters of the outer Mackenzie Delta. Burbot require, clean, cold, well oxygenated water to survive.

Management Plans/Agreements

None.

Research Priority

Unspecified.

Population Status

Appear locally common and stable.

Population Goal

Maintain abundant population to support subsistence harvest.

Conservation Measures

- Only harvest what is needed.
- Identify and protect important habitats from disruptive land uses.

References

- Carrie et al. 2010. Increasing contaminant burdens in an Arctic fish, burbot (*Lota lota*), in a warming climate. *Environmental Science & Technology* 44(1): 316-322
- Lockhart, L. Study of loche Livers from Mackenzie River Near Norman Wells. DIAND Environmental Studies No. 61.

FISH SPECIES LIST

Many species of fish occur within the freshwater and marine environments of the mainland western Arctic. Most lakes and rivers support fish populations. A partial list of these including those already mentioned is presented below. It is recognized that these species may be important components of the food chain on which other species (e.g. Arctic Char, Seals, Polar Bear) depend. As with other species, protection should be given to important habitats or ecological relationships where these become known. The Outer Mackenzie Delta area, particularly Mason and Mallik Bays, is very important overwintering and nursery habitat for a variety of marine and anadromous fish.

Marine Species

Arctic Cod (*Boreogadus saida*)
 Arctic Flounder (*Liopsetta glacialis*)
 Arctic Shanny (*Stichaeus punctatus*)
 Arctic Staghorn Sculpin (*Gymnocanthus tricuspis*)
 Blue Herring (*Clupea pallasii*) / Piqqaqitaq
 Capelin (*Mallotus villosus*)
 Fourhorn Sculpin, Deepwater Sculpin or Devil Fish (*Myoxocephalus quadricornis*) / Kanayuq
 Greenland Cod (*Gadus ogac*)
 Lump sucker (unidentified species)
 Ribbed Sculpin (*Triglops pingelli*)
 Saffron Cod (*Elegiums navaga*)
 Sand Lance (*Amodytes* sp.)
 Shorthorn Sculpin (*Myoxocephalus scorpius*)
 Starry Flounder (*Platichthys stellatus*)
 Tom Cod (*Microgadus proximus*) / Uugaq

Freshwater

Arctic Charr (*Salvelinus alpinus*) / Iqalukpik
 Arctic Cisco (*Coregonus autumnalis*)
 Arctic Grayling (*Thymallus arcticus*) / Sulukpaugaq
 Broad Whitefish (*Coregonus nasus*) / Anaaktiq
 Burbot or Loche (*Lota lota*) / Tikaaliq
 Chum Salmon (*Oncorhynchus keta*)¹
 Deepwater Sculpin (*Myoxocephalus quadricornis*) / Kanayuq
 Finescale Dace (*Chrosomus neogaeus*)
 Flathead Chub (*Platygobio gracilis*)
 Inconnu or Coney (*Stenodus leucichthys*) / Siigaq
 Lake Trout (*Salvelinus namaycush*) / Iqaluaqpak
 Lake Whitefish (*Coregonus clupeaformis*) / Pikuktuuq
 Lake Chub (*Conesius plumbeus*)
 Least Cisco or Big-eyed Herring (*Coregonus sardinella*) / Iqalusaaq¹
 Longnose Dace (*Rhinichthys cataractae*)
 Longnose Sucker (*Catostomis catostomis*)
 Nine-spine Stickeback (*Pungitius pungitius*)
 Northern Pike (*Esox lucius*) / Siulik
 Pink Salmon (*Onchonhynchus gorbuscha*)¹
 Pond Smelt (*Hypomesus olidus*)
 Rainbow Smelt (*Osmerus mordax*)
 Round Whitefish (*Prosopium cylindraceum*)
 Slimy Sculpin (*Cottus cognatus*)
 Spoonhead Sculpin (*Cottus ricei*)
 Trout Perch (*Percopsis omiscomaycus*)
 Walleye (*Stizostedion vitreum*)
 White Sucker (*Catostomis commersoni*)

1. These fish spend part of their life in salt water and part in fresh water. This life style is called "anadromous".

MARINE INVERTEBRATES AND PLANTS

The community of Paulatuk is aware that the coastal waters support populations of crabs, shrimps, clams, kelp and many other species of marine life. Some of the organisms that have been collected from coastal areas near Paulatuk and identified through DFO research programs are listed below:

- Clams
- Toad crab (aka Spider crab) (*Hyas coarctatus*)
- Amphipod
- Decapod
- Isopod
- Krill
- Shrimp (*Padalus* spp.)
- Sea anemone
- Sea squirt
- Sea urchin
- Coralline algae
- Kelp (includes *Laminaria* species)

INSECTS / QUPILGUT

A great number of terrestrial and aquatic insects and other invertebrates occur in the mainland western Arctic portion of the ISR. It is recognized that these species may form an important part of the food chain on which other animals or plants depend and may perform important functions, such as flower pollination and the breakdown of organic matter. Some species such as mosquitoes (**kikturiat**) also have a significant effect on the behaviour and habitat use patterns of by other animals (e.g. caribou) while others, such as butterflies (**saqaliqitaaq**), may be a potential tourist attraction. Species such as the green dragonfly (**niulriq**) known as the "Timberline Emerald" (*Somatochlora sahlbergi*) have characteristics of particular interest to scientists. This species is found across Asia and has a preference for deep mossy ponds. It is one of the few dragonfly species, which is known to interbreed with other species of dragonfly. The community recognizes that the unregulated collection of certain rare insects can be a problem.

Important Habitats

Insect habitat is generally abundant and widespread in the western Arctic, however, there are certain habitat areas that tend to support species which have very limited distribution in North America and/or the northern hemisphere.

Examples of these habitats include the following:

- Unglaciaded areas where dolomite or limestone is common;
- West side of the Richardson Mountains in "White Mountains" area;
- South facing slopes dominated by pasture sage (*Artemesia frigida*).

Conservation Measures

- Protect important habitats and ecological relationships (as appropriate) where these become known.
- Become more familiar with the insect life of the region.

PLANTS / NAURIAT OF THE MAINLAND WESTERN ARCTIC

A large number of plant species occur in the mainland western Arctic portion of the ISR. The flora of the area includes approximately 523 species of vascular plants (nautchiat), at least 100 mosses, 121 lichen, 6 species of liverwort and 11 species of fern. These latter non-vascular plants are collectively known as **lvgit**. Plants provide an essential component of the ecosystem on which all animals depend. They provide food and shelter for wildlife, influence water quality, provide food for humans and make a valued contribution to the overall appearance of the land. The picking of berries (Asiat) is an important summer activity.

Research Priority

The community considers research on plants, particularly monitoring the health of important food plants (for humans and animals) a very high priority.

Conservation Measures

Protect important habitats and ecological relationships when these become known. Do not export.

A partial list of plants, which have been or may be found in the area, is provided below. Not included are the many species of moss, lichen and liverwort referred to above. Plants used for food or other purposes by the Inuit are marked with an asterisk (*). Those which are considered rare are marked with a "+" sign. Where an asterisk is in brackets, there is uncertainty about the plant's identification.

Plant Species List

Achillea sibirica
A. borealis
Aconitum delphinifolium subsp. *delphinifolium*
Agoseris glauca
Agropyron boreale subsp. *alaskanum*
A. b. subsp. *boreale*
A. b. subsp. *hyperarcticum*
A. macrourum
Agrostis borealis
A. scabra
Allium schoenoprasum var. *sibiricum*
Alnus crispa subsp. *crispa*
A. incana subsp. *tenuifolia*
Alopecurus alpinus subsp. *alpinus*
Amerorchis rotundifolia
Andromeda polifolia
Androsace chamaejasme subsp. *lehmanniana*
A. septentrionalis
Anemone drummondii
A. multifida
A. narcissiflora subsp. *interior*
A. parviflora
A. richardsonii
Antennaria friesiana subsp. *compacta*
A. f. subsp. *friesiana*
A. isolepis
A. monocephala subsp. *philonipha*
Aquilegia brevistyla
Arabis hirsuta subsp. *pyrocarpa*
A. drummondii
A. divaricarpa
Arctagrostis latifolia var. *latifolia*
A. l. var. *arundinacea*
Arctophila fulva
Arctostaphylos alpina (Black bearberry)
A. rubra
A. uva-ursi var. *uva-ursi*
Arenaria capillaris
A. humifusa
Armeria maritima subsp. *arctica*
Arnica alpina subsp. *angustifolia*
A. a. subsp. *attenuata*
A. a. subsp. *tomentosa*
A. frigida
A. lessingii subsp. *lessingii*
Artemisia arctica subsp. *arctica*
A. a. subsp. *comata*
A. borealis
A. frigida
A. furcate
A. tilesii subsp. *elatior*
A. tilesii subsp. *tilesii* (Wormwood - medicine)*
Aster sibiricus
Astragalus aboriginum
A. alpinus subsp. *arcticus*
A. alpinus subsp. *alpinus*
A. bodinii
A. eucosmus subsp. *eucosmus*
A. eucosmus subsp. *sealei*
A. umbellatus

Atriplex gmelini
Beckannia erucaeformis subsp. *baicalensis*
Betula glandulosa
B. nana subsp. *exilis* (Dwarf Arctic Birch - food)*
Betula occidentalis
B. papyrifera
Boschniakia rossica
Botrychium boreale
B. lunaria
Braya humilis subsp. *arctica*
B. purpurascens
Bromus pumpellianus var. *arcticus*
B. p. var. *pumpellianus*
Bupleurum triradiatum subsp. *articum*
Calamagrostis canadensis subsp. *canadensis*
C. c. subsp. *langsдорffii*
C. deschampsoides
C. holmii
C. inexpansa
C. lapponica
C. neglecta
C. purpurascens
Calla palustris
Callitriche hermaphroditica
C. verna
Caltha palustris subsp. *arctica* (Marsh marigold - food)*
Campanula uniflora
Capsella bursa-pastoris
Cardamine bellidifolia
C. hyperborea
C. pratensis subsp. *angustifolia*
Carex albo-nigra
C. amblyorhycha
C. aquatilis
C. atrofusca
C. aurea
C. bicolor
C. bigelowii
C. bonanzensis
C. canescens
C. capillaris
C. capitata
C. chordorrhiza
C. concinna
C. diandra
C. dioica
C. disperma
C. eburnea
C. garberi subsp. *bifaria*
C. glacialis
C. glareosa subsp. *glareosa*
C. holostoma
C. lachenalii
C. laxa
C. limosa
C. nardina
C. obtusata
C. petricosa
C. podocarpa
C. ramenskii+
C. rariflora (var. *androgyra* considered rare)+
C. rostrata

C. rotundata
C. rupestris
C. saxatilis
C. scirpoidea
C. subspathacea
C. tenuiflora
C. ursina
C. vaginata
C. williamsii
Cassiope tetragona subsp. *tetragona*
Castilleja caudata
C. elegans
C. hyperborea
C. raupii
Cerastium arvense
C. beeringianum var. *grandiflorum*
Chamaedaphne calyculata
Chenopodium berlandieri subsp. *zschackei*
C. capitatum
Chrysanthemum arcticum subsp. *polare*
C. bipinnatum subsp. *huronense*
C. integrifolium
Chrysosplenium tetrandrum
Cicuta mackenzieana
Cnidium cnidiifolium
Cochlearia officinalis subsp. *arctica*
Corallorrhiza trifida
Cornus canadensis
Corydalis sempervirens
Crepis nana var. *nana*
Cypripedium guttatum subsp. *guttatum*
C. passerinum
Cystopteris fragilis subsp. *dickieana*
C. f. subsp. *fragilis*
Delphinium glaucum
Deschampsia brevifolia
D. caespitosa var. *caespitosa*
D. c. subsp. *orientalis*
Draba cinerea
D. hirta
D. lactea
D. macrocarpa
D. nivalis
Descurainia sophioides
Diapensia lapponica
Dodecatheon pulchellum subsp. *pauciflorum*
D. frigidum
Douglasia arctica
D. ochotensis
Draba aurea
D. caesia
D. crassifolia
D. lanceolata
D. longipes
D. oligosperma
D. pilosa
D. pseudopilosa
Drosera rotundifolia
Dryas integrifolia subsp. *integrifolia*
D. i. subsp. *sylvatica*
D. octopetala
Dryopteris fragrans

Dupontia fischeri subsp. *fischeri*
D. f. subsp. *psilosantha*
Eleocharis acicularis
E. palustris
Elymus arenarius subsp. *mollis* var. *mollis*
E. a. subsp. *mollis* var. *villosissimus*
E. innovatus
Empetrum nigrum subsp. *hermaphroditum* (Crowberry/**Paungat** - food, fuel)(*)
Epilobium angustifolium (Fireweed - food, medicine)*
E. davuricum
E. latifolium (River beauty, willowherd - food)*
E. palustre
Equisetum arvense (Horsetail - food, medicine)*
E. fluviatile
E. palustre
E. pratense
E. scirpoides
E. silvaticum (Horsetail - medicine)*
E. variegatum subsp. *variegatum*
Erigeron acris subsp. *politus*
E. compositus
E. elatus
E. eriocephalus
E. grandiflorus subsp. *grandiflorus*
E. humilis
E. hyperboreus
E. lonchophyllus
Eriophorum angustifolium subsp. *subarcticum* (Lettergrass - food, weaving)*
E. brachyantherum
E. callitrix
E. scheuchzeri var. *scheuchzeri*
E. scheuchzeri var. *tenuifolium*
E. russeolum
E. vaginatum subsp. *spissum*
E. vaginatum subsp. *vaginatum*
Erysimum cheiranthoides
E. inconspicuum
Erysimum pallasii
Eutrema edwardsii
Festuca altaica
F. baffinensis
F. brachyphylla
F. rubra
Galium boreale
G. brandegei
G. trifidum subsp. *trifidum*
Gentiana detonsa
G. glauca
G. propinqua subsp. *arctophila*
G. p. subsp. *propinqua*
G. raupii
Geocaulon lividum
Geum glaciale
Goodyera repens var. *ophioides*
Halimolobus mollis
Hedysarum alpinum subsp. *americanum* (Licoriceroot, Eskimo potato, **Masu** - food)*
H. hedysaroides
H. mackenzii
Hierchloe odorata
H. alpina
H. pauciflora
Hippuris tetraphylla

H. vulgaris (Mare's tail - food)*
Honckenya peploides (Seabeach sandwort - food)*
Hordeum jubatum
Juncus arcticus subsp. *ater*
J. biglumis
J. bufonius
J. castaneus subsp. *castaneus*
J. triglumis subsp. *albescens*
J. triglumis subsp. *triglumis*
Juniperus communis subsp. *nana*
J. horizontalis
Kobresia myosuroides
K. sibirica
K. simpliciuscula
Koeleria asiatica+
Lagotis glauca subsp. *minor*
Lappula occidentalis
Larix laricina var. *alaskensis*
Ledum palustre subsp. *decumbens*
L. p. subsp. *groenlandicum* (Laborador Tea - medicine)*
Lemna trisulca
Lesquerella arctica
Linnaea borealis
Linum perenne subsp. *lewisii*
Listera borealis
Lloydia serotina
Loiseleuria procumbens
Lomatogonium rotatum
Lupinus arcticus
Luzula arctica
L. arcuata subsp. *unalaschcensis*
L. multiflora subsp. *multiflora*
L. parviflora subsp. *parviflora*
L. spicata
L. tundricola
L. wahlenbergii
Lycopodium annotinum
L. confusa
L. selago subsp. *appressum*
L. s. subsp. *selago*
Matricaria matricarioides
Melandrium affine
M. apetalum subsp. *articum*
M. taimyrense
M. taylorae
Menyanthes trifoliata
Mertensia maritima subsp. *maritima*
M. paniculata
Minuartia biflora
M. dawsonensis
M. obtusiloba
M. rossii
M. rubella
Moehringia lateriflora
Monenses uniflora
Montia fontana subsp. *fontana*
Myosotis alpestris subsp. *asiatica*
Myrica gale var. *tomentosa*
Myriophyllum spicatum
Nuphar polysepalum
Oxycoccus microcarpus
Oxyria digyna (Mountain sorrel - food, medicine)*

Oxytropis arctica
O. borealis
O. campestris subsp. *gracilis*
O. deflexa
O. maydelliana
Papaver hultenii
P. lapponicum subsp. *occidentale*
P. macounii
Parnassia kotzebuei
P. palustris subsp. *neogaea*
Parrya nudicaulis subsp. *septentrionalis*
Pedicularis capitata
P. kanei subsp. *kanei* (Wooly Lousewort - food)*
P. labradorica
P. langsdoerffii subsp. *arctica* (Lousewort - food) (*)
P. lapponica
P. sudetica subsp. *albolabiata*
P. s. subsp. *interior* (Lousewort - food)(*)
P. verticillata
Petasites frigidus (Sweet Coltsfoot - food)*
P. hyperboreus (Sweet Coltsfoot - food)*
P. palmatus
P. sagittatus
Phippisia algida
*Phlox alpigena*¹
P. hoodii
P. sibirica subsp. *richardsonii*
P. s. subsp. *sibirica*
Picea glauca
P. mariana
Pinguicula vulgaris subsp. *vulgaris*
P. villosa
Plantago canescens
P. eriopoda
P. maritima subsp. *juncooides*
Platanthera hyperborea
P. obtusata
Poa alpina
P. arctica subsp. *arctica*
P. glauca
P. lanata
P. paucispicula
P. pratensis
Polemonium acutiflorum
P. boreale subsp. *boreale*
P. pulcherrimum
Polygonum alaskanum (Eskimo rhubarb / Qaugaq - food)*
P. amphibium subsp. *laevimarginatum*
P. aviculare
P. bistorta subsp. *plumosum* (Bistort - food)*
P. viviparum (food)*
Populus balsamifera subsp. *balsamifera*
Potamogeton berchtoldi
P. filiformis
P. friesii
P. gramineus
P. pectinatus
P. perfoliatus
P. praelongus
P. subsibiricus
P. vaginatus
P. zosterifolius subsp. *zosteriformis*

Potentilla egedii subsp. *egedii*
P. E. subsp. *grandis*
P. E. subsp. *yukonensis*
P. fruticosa
P. hookeriana subsp. *chamissonis*
P. h. subsp. *hookeriana* var. *hookeriana*
P. hyparctica
P. nivea
P. norvegica subsp. *monspeliensis*
P. palustris
P. pennsylvanica
P. pulchella
P. rubricaulis
P. vahliana
Primula borealis
P. egaliksensis
P. stricta
Puccinellia andersonii+
P. artica+
P. borealis
P. interior
P. phryganodes
P. vaginata
Pulsatilla patens subsp. *multifida*
Pyrola asarifolia var. *purpurea*
P. chlorantha
P. grandiflora
P. minor
P. secunda subsp. *obtusata*
Ranunculus confervoides
R. cymbalaria
R. eschscholtzii
R. gelidus subsp. *grayi*
R. gmelini subsp. *gmelini*
R. hyperboreus
R. lapponicus
R. nivalis
R. pallasii (Buttercup - food)*+
R. pedatifidus subsp. *affinis*
R. pygmaeus subsp. *pygmaeus*
R. p. subsp. *sabinei*
R. reptans
R. sceleratus subsp. *multifidus*
R. sulphureus var. *sulphureus*
R. trichophyllus var. *trichophyllus*
R. turneri+
Rhododendron lapponicum
Ribes hudsonianum
R. triste
Rorippa calycina
R. hispida var. *barbareaefolia*
R. islandica subsp. *fernaldiana*
Rosa acicularis
Rubus arcticus subsp. *stellatus* (Arctic raspberry - food)*+
R. chamaemorus (Cloudberry, **Aqipik** - food)*
R. idaeus subsp. *melanolasius*
R. pubescens
R. acetosa subsp. *alpestris*
R. sibiricus
R. arcticus (Arctic Dock - food)*
Sagina intermedia
Salix alaxensis (Alaska willow - food, additive to chewing tobacco)*

S. arbusculoides
S. arctica subsp. *arctica*
S. arctolitoralis
S. arctophila
S. chamissonis+
S. fuscescens
S. glauca subsp. *acutifolia*
S. g. subsp. *callicarpaea*
S. g. subsp. *desertorum*
S. hastata
S. lanata
S. myrtillifolia
S. niphoclada
S. phlebophylla
S. phyllicifolia
S. polaris subsp. *pseudopolaris*
S. pulchra (food, medicine, additive to chewing tobacco and snuff)*
S. reticulata subsp. *reticulata*
Sanguisorba officinalis
Saussurea angustifolia
Saxifraga caespitosa
S. cernua (Bulblet saxifrage - food)(*)
S. exilis
S. foliolosa var. *foliolosa*
Saussurea angustifolia
Saxifraga caespitosa
S. cernua (Bulblet saxifrage - food)(*)
S. exilis
S. foliolosa var. *foliolosa*
S. hieracifolia
S. hirculus (Bog saxifrage - food)(*)
S. nivalis
S. oppositifolia subsp. *oppositifolia*
S. punctata subsp. *nelsoniana* (Cordate-leaved Saxifragi - food)*
S. reflexa
S. rivularis var. *flexuosa*
S. rivularis var. *rivularis*
S. tricuspida
Sedum rosea subsp. *integrifolium*
Selaginella sibirica
Senecio atropurpureus subsp. *frigidus*
S. a. subsp. *tomentosus*
S. congestus
S. hyperborealis
S. lugens
S. pauperculus
S. resedifolius
S. yukonensis
Shepherdia canadensis
Sibbaldia procumbens
Silene acaulis subsp. *acaulis*
S. a. subsp. *subacaulescens*
Silene repens
Smelowskia calycina
Solidago multiradiata
Sparganium hyperboreum
S. multipedunculatum
Spiraea beauverdiana
Stellaria calycantha subsp. *interior*
S. calycantha var. *isophylla*
S. crassifolia
S. edwardsii

S. humifusa
S. laeta
S. longipes
S. media
S. monantha
Taraxacum alaskanum
T. ceratophorum
T. lacerum ((Dandelion - food)*
T. phymatocarpum
Thellungiella salsuginea
Thlaspi arcticum
Tofieldia coccinea
T. pusilla
Trichophorum caespitosum
Triglochin maritimum
T. palustris
Tripleurospermum phaeocephalum
Trisetum spicatum subsp. *molle*
T. s. subsp. spicatum
Utricularia intermedia
U. vulgaris subsp. *macrorhiza*
Vaccinium uliginosum subsp. *alpinum* (Blueberry, **Asiat** - food, fuel)*
V. u. subsp. microphyllum (Blueberry, **Asiat** - food, fuel)*
V. vitis-idaea subsp. *minus* (Lingonberry, Cranberry, **Kimingnat** - food)*
Valeriana capitata (Valerian - medicine)*
Viola epipsila subsp. *repens*
Wilhelmsia physodes
Woodsia alpina+
W. glabella
Zygadenus elegans

+ Listed as rare vascular plants in: Argus, G.W. and K.M. Pryer 1990 Rare Vascular Plants in Canada. Canadian Museum of Nature.

* Locally used food or medicine plant.

Source:

Argus G.W. and K. Pryer, 1990. Rare Vascular Plants in Canada. Canadian Museum of Nature. Ottawa.

Hulten, E., 1968. Flora of Alaska and Neighboring Territories. A Manual of the Vascular Plants. Stanford University Press. Stanford, California.

APPENDIX A: PRINCIPLES OF WILDLIFE HARVESTING AND MANAGEMENT FROM THE INUVIALUIT FINAL AGREEMENT

1. A basic goal of the Inuvialuit Land Rights Settlement is to protect and preserve the Arctic wildlife, environment and biological productivity through the application of conservation principles and practices.
2. In order to achieve effective protection of the ecosystems in the Inuvialuit Settlement Region, there should be an integrated wildlife and land management regime, to be attained through various means, including the coordination of legislative authorities.
3. It is recognized that in the future it may be desirable to apply special protective measures under laws, from time to time in force, to lands determined to be important from the standpoint of wildlife, research or harvesting. The appropriate ministers shall consult with the Inuvialuit Game Council from time to time on the application of such legislation.
4. It is recognized that one of the means of protecting and preserving the Arctic wildlife, environment and biological productivity is to ensure the effective integration of the Inuvialuit into all bodies, functions and decisions pertaining to wildlife management and land management in the Inuvialuit Settlement Region.
5. The relevant knowledge and experience of both the Inuvialuit and the scientific communities should be employed in order to achieve conservation.

APPENDIX B: GOALS AND PRINCIPLES OF THE INUVIALUIT RENEWABLE RESOURCE CONSERVATION AND MANAGEMENT PLAN

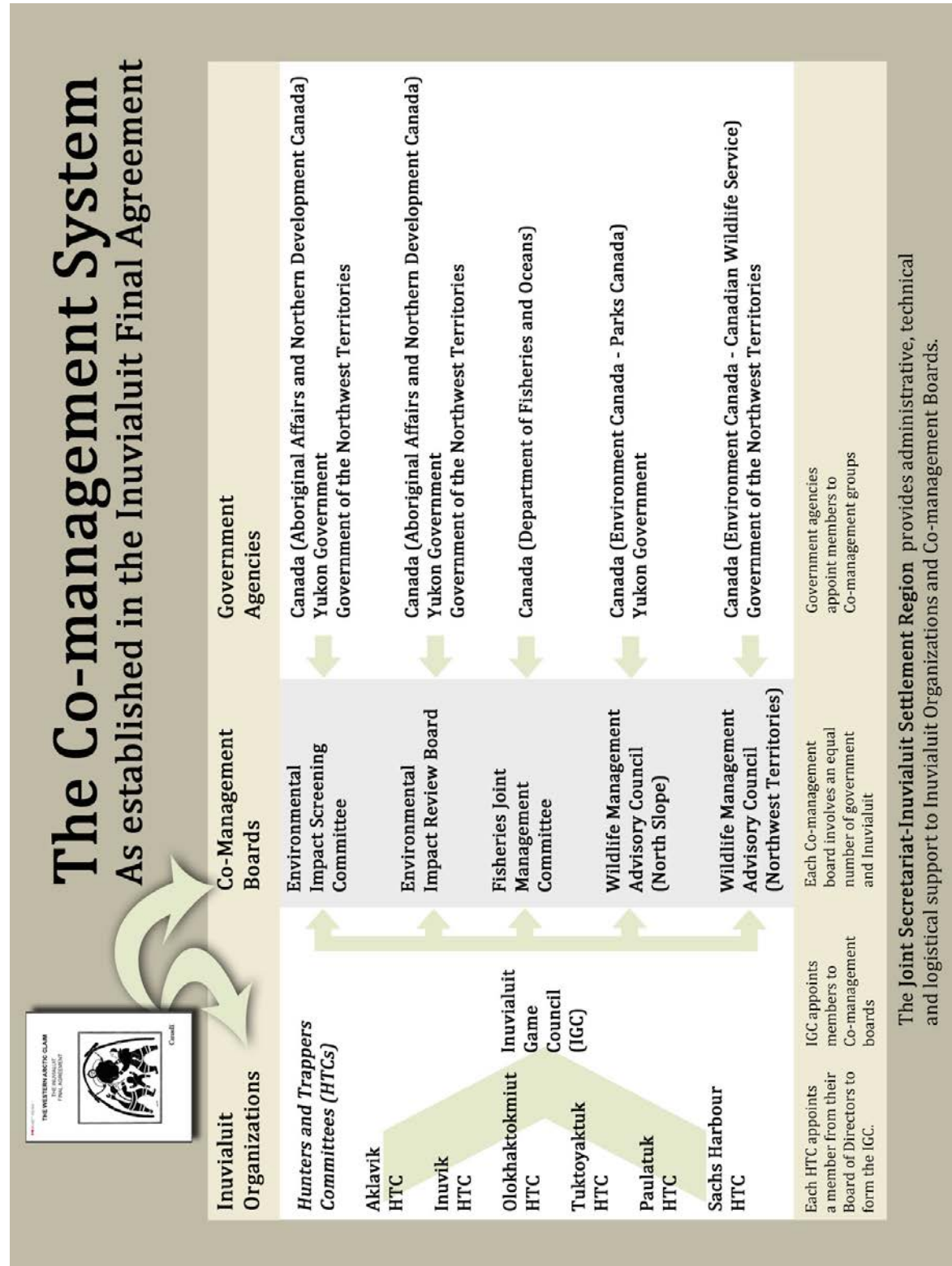
GOALS:

1. **Conserve Resource Base.** To conserve arctic animals and plants and their associated ecosystems within the Inuvialuit Settlement Region.
2. **Integrated Management.** To provide for integrated renewable resource and land management.
3. **Co-operation.** To co-operatively manage shared resources.
4. **Enhance Understanding.** To enhance understanding and appreciation of arctic ecosystems.

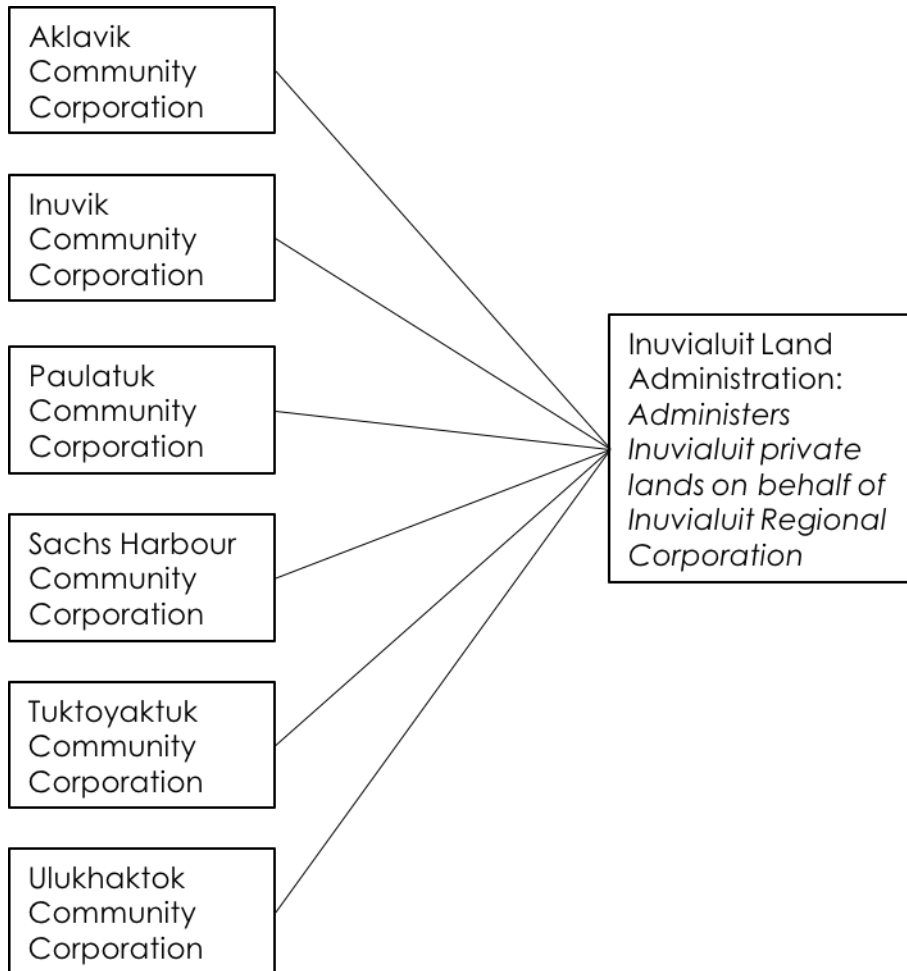
PRINCIPLES:

1. **Diversity.** Maintaining the great variety of animals and plants will help ensure the stability and productivity of the arctic ecosystem.
2. **Productivity & Culture.** Maintenance of productive arctic ecosystems is essential for the survival of Inuvialuit cultural values, social systems, local economy and sense of well-being.
3. **Communication, Co-operation.** Long-term protection of ecosystems can best be achieved through active communication and co-operation of all parties concerned, including the combination of renewable resource and land management activities.
4. **Future Options.** Maintenance of the renewable resource base and its enhancement, where appropriate, will maximize Inuvialuit future options.
5. **Protection.** Special conservation measures, including new legislation, may be necessary from time to time, to protect the renewable resource base.
6. **Population Management.** Management of fish and wildlife resources as discrete populations, where these can be identified is essential to their conservation.
7. **Habitat.** Careful management of habitat is vital to the maintenance of abundant fish and wildlife populations.
8. **Resource Use.** Subsistence and recreational use of well managed renewable resources is desirable and consistent with their conservation.
9. **Participation.** Participation of the Inuvialuit in renewable resource and land management is essential for the conservation of Arctic plants and animals and the habitats on which they depend.
10. **Traditional Knowledge.** Inuvialuit knowledge and experience are essential elements in the proper management of renewable resources in the Settlement Region.

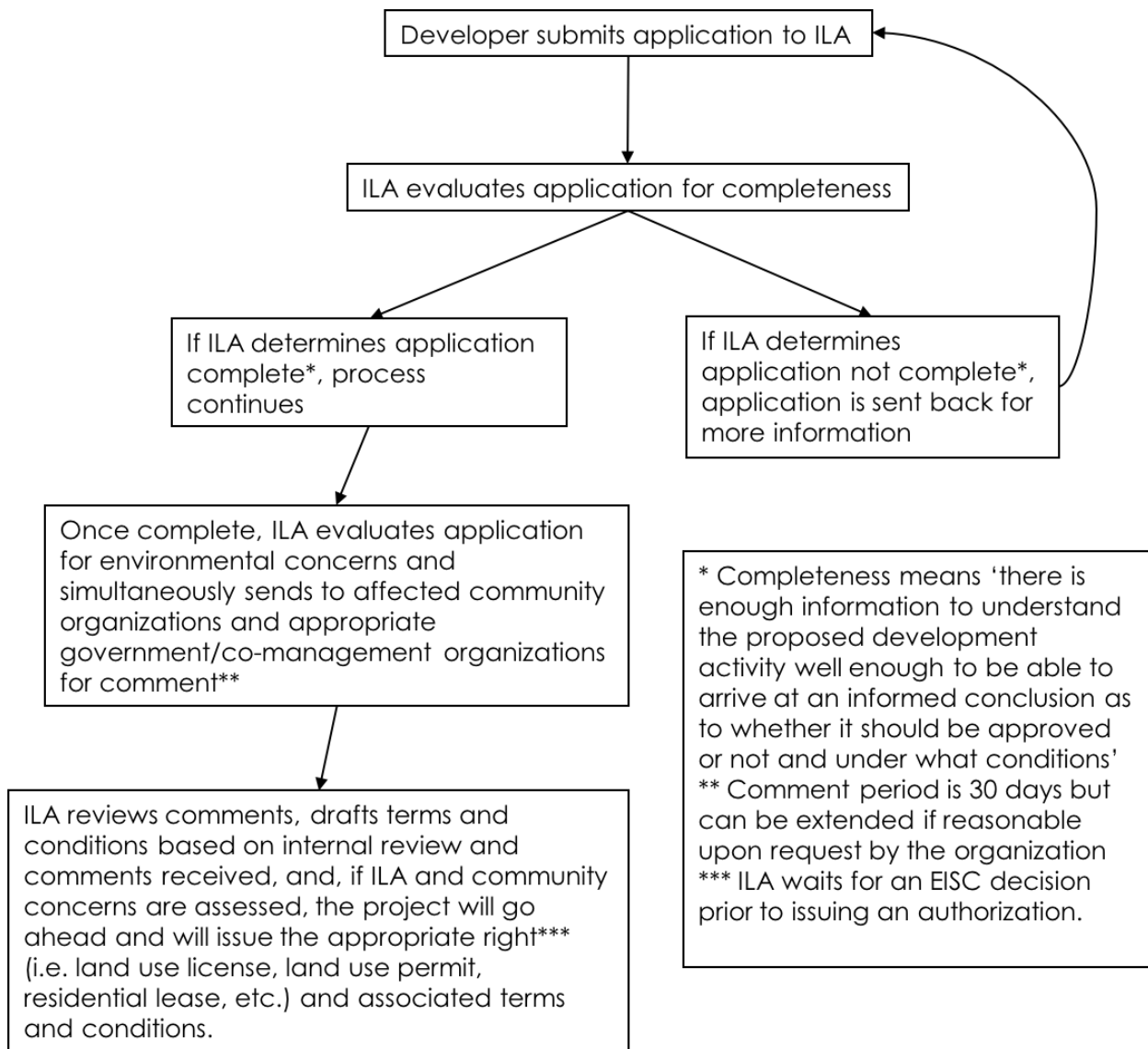
APPENDIX C: ORGANIZATION CHART FOR RENEWABLE RESOURCE MANAGEMENT UNDER THE INUVIALUIT FINAL AGREEMENT



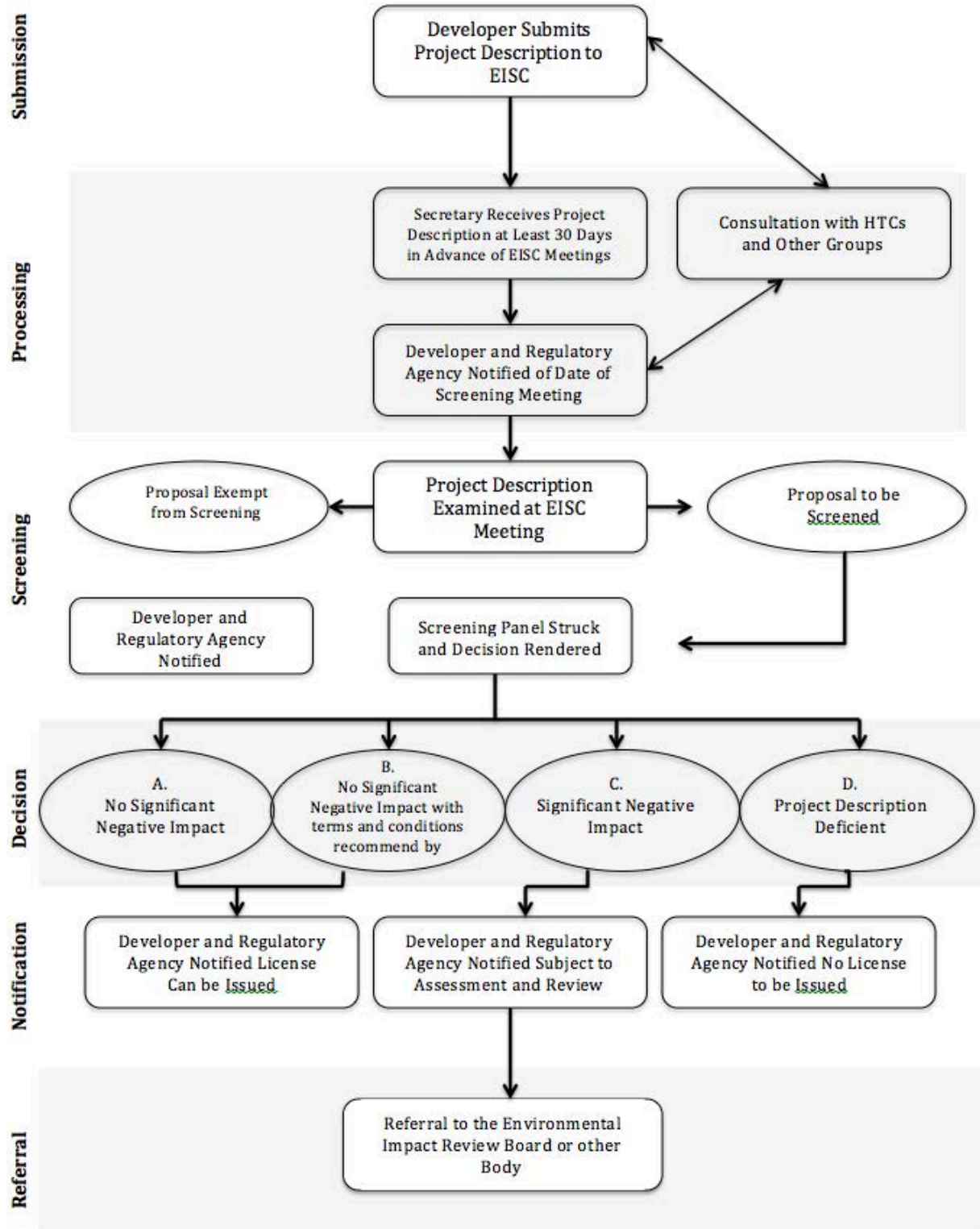
APPENDIX D: ORGANIZATION CHART FOR PRIVATE LAND MANAGEMENT UNDER THE INUVIALUIT FINAL AGREEMENT



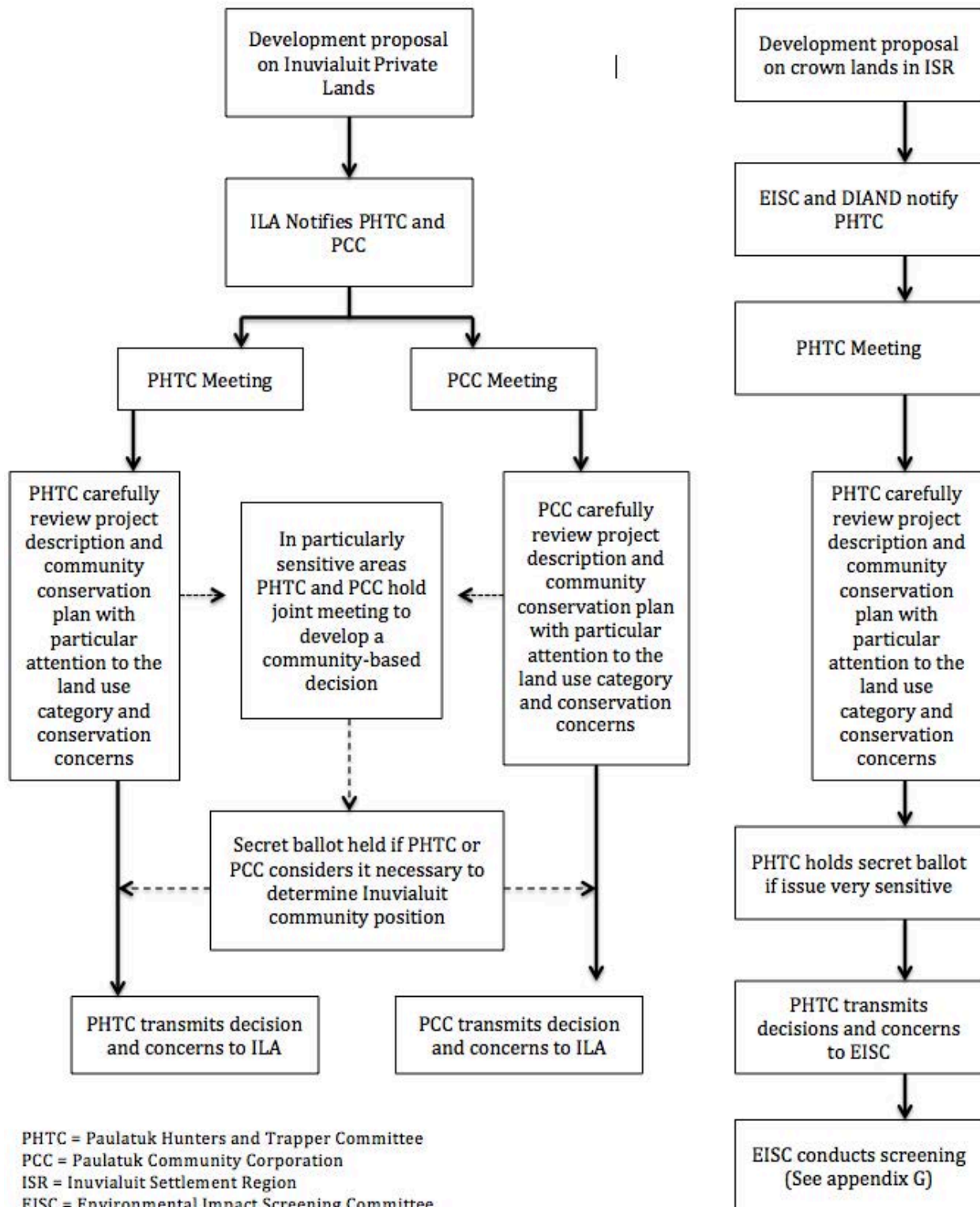
APPENDIX E: INUVIALUIT LAND ADMINISTRATION APPLICATION REVIEW PROCESS



APPENDIX F: INUVIALUIT SETTLEMENT REGION ENVIRONMENTAL IMPACT SCREENING AND REVIEW PROCESS



APPENDIX G: PAULATUK LAND USE DECISION PROCESS



PHTC = Paulatuk Hunters and Trapper Committee
 PCC = Paulatuk Community Corporation
 ISR = Inuvialuit Settlement Region
 EISC = Environmental Impact Screening Committee
 DIAND = Dept. of Indian Affairs and Northern Development

APPENDIX H: CONDUCT OF OPERATIONS

Section 19. From Inuvialuit Land Administration Manual of Rules and Procedures

- 19(1) Activities Prohibited on Inuvialuit Land
- 19(2) Excavation
- 19(3) Water Crossings
- 19(4) Clearing of Lines, Trails or Rights of Way
- 19(5) Survey Monuments
- 19(7) Contingency Plans
- 19(8) Pingos
- 19(9) Archaeological Sites
- 19(10) Campsites
- 19(11) Sewage
- 19(12) Restoration of an Area
- 19(13) Removal of Buildings and Equipment
- 19(16) Emergencies
- 19(17) Display of Rights
- 19(18) Staking
- 19(19) Cutting of Trees
- 19(20) Availability of Rules and Procedures

CONDUCT OF OPERATIONS

ACTIVITIES PROHIBITED ON INUVIALUIT LAND

- 19(1) No Holder shall, unless expressly authorized in his Right or in writing by the Administrator or Inspector:
 - (a) Conduct an operation within 30 m (98 ft.) of a known monument or a known or suspected archaeological site or burial ground;
 - (b) When excavating Inuvialuit Land within 100 m (328 ft.) of any stream excavate at a point that is below the normal high water mark of that stream, except for buried pipelines;
 - (c) Deposit on the bed or on the ice of any waterbody any excavated material; or
 - (d) when placing a fuel or supply cache within 100 m (328 ft.) of any stream or waterbody, place the fuel or supply cache below the normal high water mark of that stream or waterbody;

EXCAVATION

- 19(2) Subject to the terms and conditions of his Right or the express written authority of an Inspector, every Holder, other than the Holder of a Quarry License, Quarry Concession or Concession, shall replace all materials removed by him in the course of excavating, other than rock trenching, and shall level and compact the area of excavation, except for backfill over buried pipelines and sumps.

WATER CROSSINGS

- 19(3) Subject to the terms and conditions of his Right or the express written authority of

an Inspector, every Holder shall:

- (a) remove any material or debris deposited in any stream or waterbody in the course of an operation, whether for the purpose of constructing a crossing or otherwise, and
- (b) restore the channel and bed of the stream or waterbody to their original alignment and cross-section, prior to the completion of the operations or prior to the commencement of spring break-up, whichever occurs first.

CLEARING OF LINES, TRAILS OR RIGHTS OF WAY

19(4) unless expressly authorized in a Right, no Holder shall:

- (a) Clear a new line, trail or right-of-way where there is an existing line, trail or right-of-way that can be used;
- (b) Clear a line, trail, or right-of-way wider than 10 m (33 ft.); or,
- (c) While clearing a line, trail or right-of-way, leave leaners or debris in standing timber.

19(5) Where, in the opinion of an Inspector, serious erosion may result from an operation, the Holder shall adopt such measures to control erosion as may be required by the Inspector.

SURVEY MONUMENTS

19(6) where a boundary, geodetic or topographic monument is damaged, destroyed, moved or altered in the course of an operation, the Holder shall, in accordance with these Rules and laws generally applicable:

- (a) Report the fact immediately to the Administrator and respective authorities, and pay the costs of:
 - (i) Investigating such damage, destruction, movement or alteration, and
 - (ii) Restoring or re-establishing the monument to its original condition or its original place; or
- (b) Cause the monument to be restored or re-established at his own expense.

CONTINGENCY PLANS

19(7) Holders of a Land Use Permit Class A, Commercial Lease Class 1, Well-Site Lease, Public Lease, Quarry Concession, Concession, Reconnaissance Permit, or Right of Way shall submit to the Administrator and, from time to time, update comprehensive contingency plans to cope with possible major accidents, disasters or catastrophic events during the operations.

PINGOS

19(8) No vehicle shall have access to any Pingo, including a zone of 100 m (328 ft.) surrounding such Pingo.

ARCHAEOLOGICAL SITES

19(9) where in the course of an operation, a suspected archaeological site or burial ground is unearthed or otherwise discovered, the Holder shall immediately:

- (a) Suspend the operation on the site; and
- (b) Notify the Administrator or an Inspector of the location of the site and the nature of any unearthed materials, structures or artifacts.

CAMPSITES

19(10) Subject to the terms and conditions of the Right, every Holder shall dispose of all garbage, waste and debris from any campsite used in connection with an operation by removal, burning or burial or by such other method as may be directed by an Inspector.

SEWAGE

19(11) Sanitary sewage produced in connection with operations, shall be disposed of in accordance with the Public Health Ordinance of the Northwest Territories and any regulations made under the applicable Ordinance, or as stipulated by the Administrator.

RESTORATION OF AN AREA

19(12) Subject to the terms and conditions of the Right, every Holder shall, after completion of the operations, restore the area as nearly as possible to the same conditions as it was prior to the commencement of the operations.

REMOVAL OF BUILDINGS AND EQUIPMENT

19(13) Subject to subsections 19(14) and 19(15) hereof, every Holder shall, on completion of the operation, remove all buildings, machinery, equipment, materials and fuel drums or other storage containers used in connection with the operations.

19(14) A Holder may, with the prior written approval of the Administrator, leave on Inuvialuit Lands such buildings, equipment, machinery and materials as the permittee deems may be required for future operations or other operations in the area, but any equipment, machinery or materials so left shall be stored in a manner, at a location and for a duration approved by the Administrator, and apply for the reduction of the Land Occupancy Rent as provided for in subsection 17(14) hereof. Where applicable, the Holder may also make an Application for the reclassification of his Right.

19(15) Subject to any applicable mining legislation on 7(1)(b) Lands, a Holder may, without the prior approval of the Administrator, leave diamond drill cores at a drill site on Inuvialuit Lands.

EMERGENCIES

19(16) Any person may, in an emergency that threatens life, property or the natural environment, carry out such operations as he deems necessary to cope with the emergency, whether or not the operation is carried out in accordance with these Rules or any Right that he may have and such person shall immediately thereafter send a written report to the Administrator describing the duration, nature and extent of the emergency operation.

DISPLAY OF RIGHTS

19(17) Every Holder engaged in a work or undertaking authorized by a Right shall display:

- (a) An exact copy of the Right, including the conditions thereof, in a prominent place of the operations; and
- (b) The ILA number assigned to the Right on such articles and equipment, in such a

manner and at such places as the Administrator may require.

STAKING

19(18) A person who desires to obtain a Quarry Concession, Coal Concession or Mineral Concession, shall stake such lands in the following manner:

- (a) The area shall not exceed the maximum area permitted by these Rules and the length of any areas shall not exceed twice its width;
- (b) The area shall be rectangular in form except where a boundary of a previously staked tract is adopted as common to both areas;
- (c) The land shall be marked by the applicant with posts firmly fixed in the ground, one at each corner; alternatively, rock cairns may be used in lieu of posts;
- (d) Each post shall be at least 25 cm² (4 in²) and when firmly planted shall not be less than 1.25m (4 ft.) above the ground;
- (e) Each post shall bear markings showing the number of the post, the name of the applicant, the date of the staking and the kind of materials which it is desired to remove;
- (f) When rock cairns are used they shall be well constructed and shall not be less than two feet high and two feet in diameter at the base and a metal container shall be built into the cairn, and a notice bearing the number of the cairn, name of the applicant, the date of the staking and the kind of material which it is desired to remove shall be placed therein;
- (g) In a timbered area the lines between the posts shall be clearly marked; and in treeless areas mounds of earth or rock not less than 6 m (2 ft.) high and 6 m (2 ft.) in diameter at the base may be used to mark the lines between the cairns;
- (h) The applicant shall post a written or printed notice on a post or in a cairn setting out his intention to apply for a Quarry Concession within the time prescribed by these Rules; or
- (i) If two or more persons apply for the same area, the person who first staked the area in accordance with these Rules shall be entitled to priority in respect to the issuance of a Quarry Concession.

CUTTING OF TREES

19(19) Holders shall only cut trees where there is no reasonable alternative than cutting trees for the creation of seismic lines, Right-of-Ways, or areas necessary for work camps or buildings. Otherwise, Holders shall under no circumstances cut trees unless specifically authorized in writing by the Administrator.