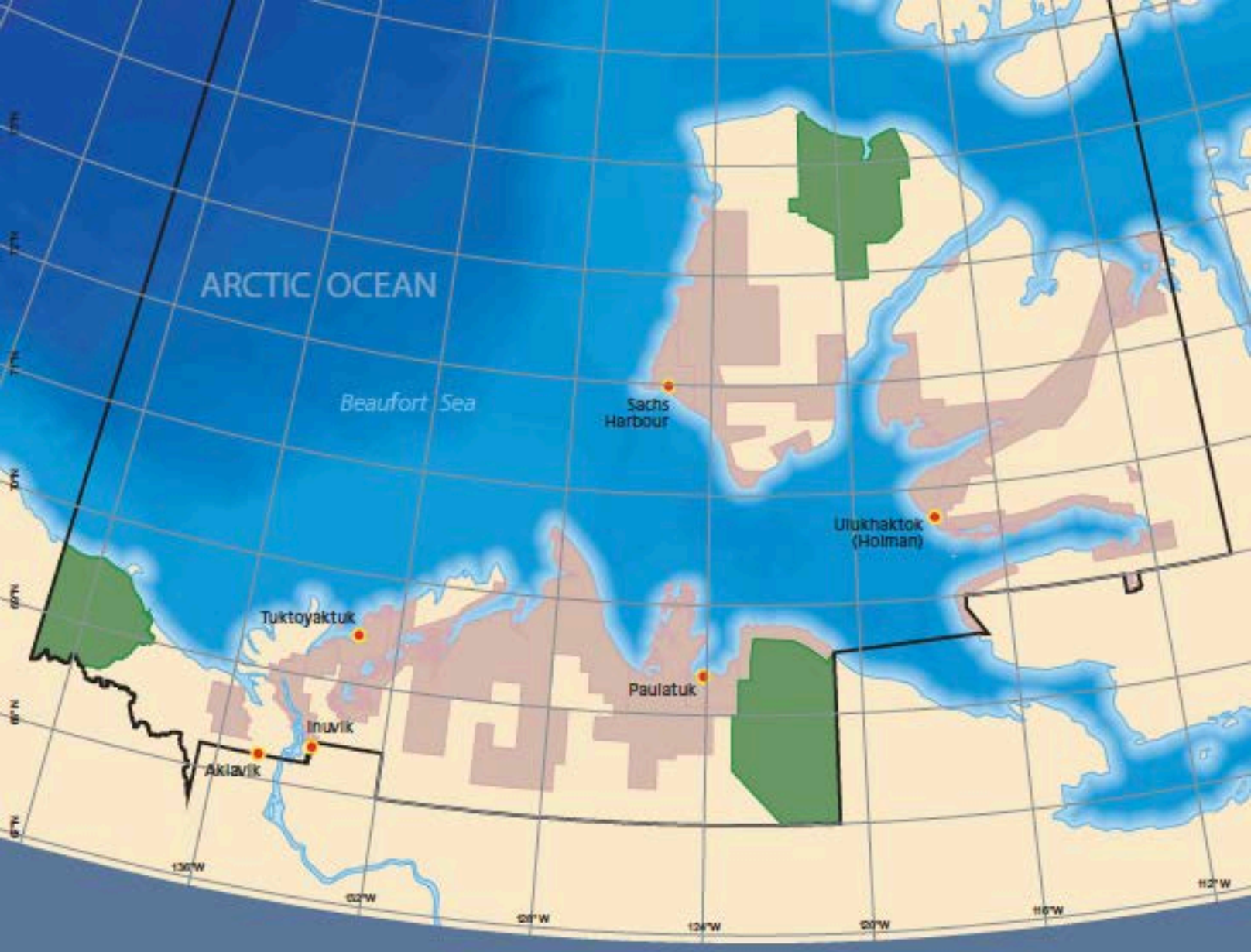

Beaufort Sea Beluga Management Plan

Amended Fourth Printing 2005

Fisheries Joint Management Committee
Box 2120 Inuvik, Northwest Territories
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FJMC

PREFACE

The Inuvialuit Final Agreement, signed in 1984, sets out the terms of a settlement between the Committee for Original People's Entitlement representing the Inuvialuit, and the Government of Canada, representing all citizens of Canada, among them the Inuvialuit.

As prescribed by Section 14 (61) of the Inuvialuit Final Agreement the Minister of Fisheries and Oceans established the Fisheries Joint Management Committee in 1986. The Committee was established to assist Canada and the Inuvialuit in administering the rights and obligations relating to fisheries within the Inuvialuit Settlement Region as described in the Final Agreement, to assist the Minister of Fisheries and Oceans in carrying out his responsibilities for the management of fisheries, and to advise the Minister on all matters relating to fisheries affecting the Inuvialuit and the Inuvialuit Settlement Region.

To this end the FJMC, in cooperation with the Hunters and Trappers Committees of Aklavik, Holman Island, Inuvik, Paulatuk, Sachs Harbour, Tuktoyaktuk, and the Department of Fisheries and Oceans, undertook the development of a management plan for Beaufort Sea beluga. This document represents the results of that effort. The research, monitoring and regulations necessary for the implementation of the Plan, are to be provided by the Hunters and Trappers Committees, the Inuvialuit Game Council, the Department of Fisheries and Oceans and by the Fisheries Joint Management Committee.

The first Beluga Management Plan completed in 1991 was re-affirmed by all parties in 1993. In light of increased hydrocarbon activity in this region the plan was amended in 2001 to clarify the guidelines for Zones 1a and 1b.

This 2005 edition of the plan has been edited to take into account the work that all of the parties have carried out as part of the Beaufort Sea Integrated Management Planning Initiative (BSIMPI). The changes occur in three places, pages 13 and 14, Appendix A and Appendix B. The information contained in Appendices A and B is in draft form and as such, the regulatory intent and legal description wording are expected to change during the final stages of the designation of the Tarium Niryutait MPA. A major review and revision of this document will occur at the conclusion of this process and will reflect any such changes.

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INTRODUCTION

Beluga that are found each summer within the Inuvialuit Settlement Region form part of a larger population that winters in the Bering Sea. Each spring that population separates into several stocks that migrate to summering areas ranging from Bristol Bay on Alaska's west coast to the eastern Beaufort Sea. During summer a portion of the Beaufort Sea stock concentrates in the Mackenzie River estuary, and is hunted there by Inuvialuit from Aklavik, Inuvik and Tuktoyaktuk. Residents of Paulatuk hunt beluga in the Darnley Bay area. To date, the Inuvialuit harvest of beluga has been self-limited to the number of whales required to cover the basic subsistence needs of residents from these communities.

Beluga management in the Canadian Beaufort Sea has been carried out through a variety of federal acts and regulations. These include the *Fisheries Act*, the Marine Mammal Protection Regulations, the *Oil and Gas Production and Conservation Act*, the *Canadian Environmental Protection Act*, and the *Arctic Waters Pollution Prevention Act* and most importantly, under the Inuvialuit Final Agreement (Western Arctic (Inuvialuit) Claims Settlement Act Canada 1984).

With the signing of the *Inuvialuit Final Agreement (IFA)* in 1984, some adjustments in beluga management within the Inuvialuit Settlement Region have been necessary. First, management activities must now reflect the legislation enacted as a result of that Agreement. For example, the appropriate changes to the Marine Mammal Protection Regulations have been made. Second, both resource users and managers agreed that management programs were required to ensure that the beluga resource continues to thrive, and that it is utilized efficiently.

With those general objectives in mind, the following Management Plan has been prepared. The task has required the cooperation and participation of both the Inuvialuit and the Department of Fisheries and Oceans (DFO). To be successful, the Plan will continue to depend upon the cooperation and participation of the Hunters and Trappers Committees (HTC's), the Inuvialuit Game Council (IGC), the Fisheries Joint Management Committee (FJMC) and the Department of Fisheries and Oceans. Implementation of some components of this Plan can be immediate. Others may take years, and some will be ongoing. However, the commitments, long-term objectives and overall goals of the Plan will be retained and pursued by all parties.

The FJMC recognizes that as circumstances within the Settlement Region change with time, some components of the plan may become out-dated. Therefore the Committee agrees to review the plan with the Hunters and Trappers Committees, the Inuvialuit Game Council and the Department of Fisheries and Oceans on a regular basis. The next comprehensive review of the Plan is expected in 2006.

GOALS OF BELUGA MANAGEMENT

A fundamental theme of the Inuvialuit Final Agreement is its emphasis on **the protection and preservation of Arctic wildlife, the environment, and its biological productivity.** An equally important theme is that sound wildlife management is to be used to ensure optimal sustainable harvests for Inuvialuit. Both are to be achieved through the principles and practices of conservation.

To provide the base for all renewable resource management activities within the ISR, the *Inuvialuit Renewable Resource Conservation and Management Plan* was prepared by the Wildlife Management Advisory Council (NWT) and the FJMC in 1988. It lays out a long-term strategy for the conservation and management of fish and wildlife within the Inuvialuit Settlement Region, and provides both community resource users and resource managers with reason and direction for their actions.

The *Beaufort Sea Beluga Management Plan* has been developed in a fashion that is consistent with the themes and goals of the above document. The Plan's purpose is to ensure the responsible and effective, long-term management of the beluga resource by the Inuvialuit and the Department of Fisheries and Oceans.

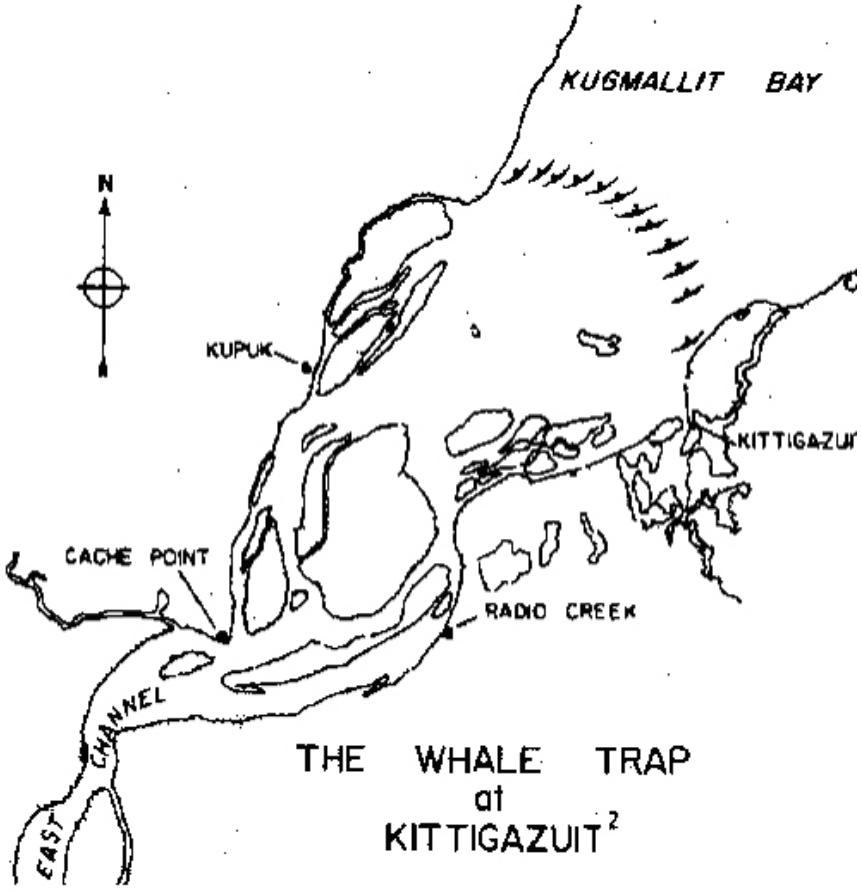
The Specific Goals of this Plan are:

To maintain a thriving population of beluga in the Beaufort Sea

To provide for optimum sustainable harvest of beluga by the Inuvialuit

The following pages describe the activities that the parties to the Plan feel are necessary to meet the goals outlined above. These activities are described in three main sections. The first section deals with ensuring a sustainable harvest of beluga for Inuvialuit. The second part describes measures necessary to conserve and protect beluga in an increasingly industrialized environment. The final section outlines supporting programs that will be necessary if the plan is to be successful. These components are not meant to describe management activities in great detail. Rather they are used to establish the general objectives necessary to attain the Plan's major goals.

Whale Trap at Kittigazuit



"At the great whale hunts I remember there was such a large number of kayaks that when the first had long disappeared from view, more and more were just setting out."
Nuligak [1]

1. *I, Nuligak.* 1966. M. Metayer, (tr.) Toronto, Peter Martin

2. *The Whale Trap at Kittigazuit* has been reproduced, with permission, from *Beluga Hunters, An Archaeological Reconstruction of the History and Culture of the Mackenzie Delta Kittegaryumiut.* McGhee, Robert. 1988. Canadian Museum of Civilization.

SUSTAINABLE HARVESTS

Inuvialuit from Aklavik, Inuvik and Tuktoyaktuk harvest beluga from the Mackenzie River estuary each summer. The harvest comes largely from whale concentration areas in Kugmallit Bay, near Kendall Island, Shallow Bay and along the Yukon coast between Tent Island and King Point. Little whale hunting takes place offshore since the water is too deep and whales escape by diving. As well, hunters recognize that they risk high loss rates due to the deep water. Residents of Paulatuk are now conducting a successful annual hunt with results varying from year to year depending on hunting conditions. Residents of Holman Island and Sachs Harbour may occasionally harvest beluga as the opportunity arises.

The harvest of beluga in the estuary has always been self regulated and limited to the number required for subsistence needs. From 1984 to 1996, an average of 124 beluga have been landed each year. This is well within the safe removal level or Total Allowable Catch (TAC) for this stock.

The struck and lost rate is significantly less than previous estimates of up to 18% for this hunt (Strong, J.T. 1990. Can. Data Rep. Fish. Aquat. Sci. 800: iv+52p.) and for 1992 to 1996 has averaged 9.8%. The adoption of community beluga hunting bylaws and guidelines has contributed to a reduction in lost whales.

The Alaskan harvest of beluga from the stock that migrates to the Beaufort\Mackenzie is not as high as originally thought and been most recently estimated at 46 beluga per year. (Alaska Marine Mammal Newsletter Vol. 3 No. 1 Oct. 95)

Objectives

To provide for a level of harvest that generates the greatest net benefit to the Inuvialuit while ensuring the long-term sustainability of beluga in the Canadian Beaufort Sea.

To ensure an efficient harvest and low loss rates.

Stock Status

An aerial survey of the Mackenzie Estuary, Eastern Beaufort Sea and Amundsen Gulf was conducted in late July of 1992.

Including a factor for belugas missed-at-surface and about-to-surface, the survey produced an index of stock size of 19,629 (15,134 – 24,125 95% CI) beluga (Harwood et al 1996. Can. J. Fish Aqua. Sci. 53(10) 2262–2773).

This index does not represent all of the beluga that summer in the Eastern Beaufort Sea. It was not possible to correct this index of abundance for belugas submerged at the time that the observers were present (studies in other areas have shown that belugas can spend up to 80% of their time below the surface), nor for belugas that were outside of the study area at the time of the survey (satellite telemetry has shown that only a fraction of the entire summer range was covered by the survey). Therefore, the estimate produced by the survey must be considered an index, as it only represents a proportion of the belugas in this stock.

Results from DNA analysis from beluga in the Canadian Beaufort as well as those from the Alaskan side are not complete to date but indicate that the Bering Sea population of beluga may be divided into as many as four different stocks, one of which would be the Beaufort Sea Stock. At least some of the Alaskan spring and fall harvest are likely taken from the Beaufort Sea Stock.

Total Allowable Catch (TAC)

The first edition of the Beluga Management Plan devoted considerable attention to total allowable catch (TAC). Since the beluga monitoring program has provided long term accurate and consistent results since 1976, and the results of the 1992 aerial survey have established the presence of far more whales (20,000 +) than original estimates of 7,500, there is no pressing need to establish a TAC at this time.

TAC is recognized as a valuable tool and may be established in the future if required. In this plan, a TAC is defined as the total number of beluga that can be struck by hunters in a single hunting season without reducing the number of beluga in the overall population, or a TAC ensures that the number of adult beluga taken from the population through hunting and other natural causes of death will not be greater than the number of beluga that reach breeding age each year.

For this approach to work all removals from the population must come from the TAC.

Total Allowable Catch, if required, could now be calculated from the estimate produced by the 1992 aerial survey, and from recruitment and vital rates studies which are ongoing. As more data is secured from these studies, a more accurate analysis could be achieved in the future. The Department of Fisheries and Oceans is responsible for the necessary studies and it is the responsibility of the Inuvialuit to continue to provide accurate harvest information and to participate in the collection of biological data.

Since some of the Beaufort Sea beluga are a shared resource between Canada and Alaska, the Inuvialuit and the Alaskan Inupiat have established an Inuvialuit-Inupiat Beluga Whale Commission. This Commission will ensure the exchange of harvest data, traditional ecological knowledge, research results and will plan and conduct joint research projects where desirable.

If TAC is established in the future, allocation responsibilities are defined in the Inuvialuit Final Agreement, the first priority being subsistence use.

CONSERVATION AND PROTECTION

Guidelines for Development Activities

Beluga summering in Canadian waters migrate through areas where oil and gas exploration activities have been underway for almost two decades, and where oil and gas production and transportation activities are proposed for the future. They concentrate in areas where hydroelectric developments and other ventures such as mining (gravel removal), deep water port development and shipping could affect water regimes, water quality and food availability. Such activities could affect beluga either directly (e.g. underwater noise, oil spills) or indirectly (e.g. changes in salinity or integrity of ice, timing of break-up). However, the severity, likelihood and biological implications of these effects are, for the most part, unknown.

There are no commercial fisheries in the Canadian Beaufort Sea at this time. It is possible that commercial fishing opportunities within the Inuvialuit Settlement Region will be identified and pursued in the coming years. Removal of significant quantities of fish may reduce the amount of food available to beluga. Development of any commercial fishery, either marine or estuarine, should take into account the food requirements of beluga. It must be emphasized that the present base of scientific knowledge related to species interaction and beluga feeding ecology in the Beaufort Sea is not sufficient for proper assessment of the effect of medium or large-scale commercial fisheries.

Objectives

To protect beluga, beluga habitat and beluga harvesting.

To provide guidelines and information to assist Government, the Environmental Impact Screening and Review Process and the Inuvialuit Land Administration in their evaluation of development proposals which may affect beluga, beluga habitat or beluga harvesting.

To provide guidelines to assist industry in preparing developmental proposals.

Beluga Management Zones

To reflect the intensity of management required, this Plan divides the Beaufort Sea into four management zones (Fig. 1 & 2). The guidelines associated with each of the zones are intended to assist decision makers in their consideration of special regulations, codes of conduct, or international agreements needed to guarantee that beluga are conserved, the harvest is ensured, the habitat is protected, and other compatible uses of the resource are allowed.

There are several acts and regulations that apply to industrial activities in the Canadian Beaufort Sea. These are administered by various governmental agencies. In addition, the Environmental Screening and Review Process was established under the Inuvialuit Final Agreement to ensure that the interests of the Inuvialuit are considered in the review of development proposals for Crown Lands within the Inuvialuit Settlement Region. Similarly, the Inuvialuit Lands Administration reviews all proposals for development on Inuvialuit private (7(1)(a & b) lands.

The guidelines for each zone are intended to provide specific guidance to Inuvialuit cooperative management bodies and government agencies for their use in the evaluation of any development proposals which may affect the well-being of the beluga resource, the harvesting of that resource, or beluga habitat.

Figure 1: Management Zone Boundaries

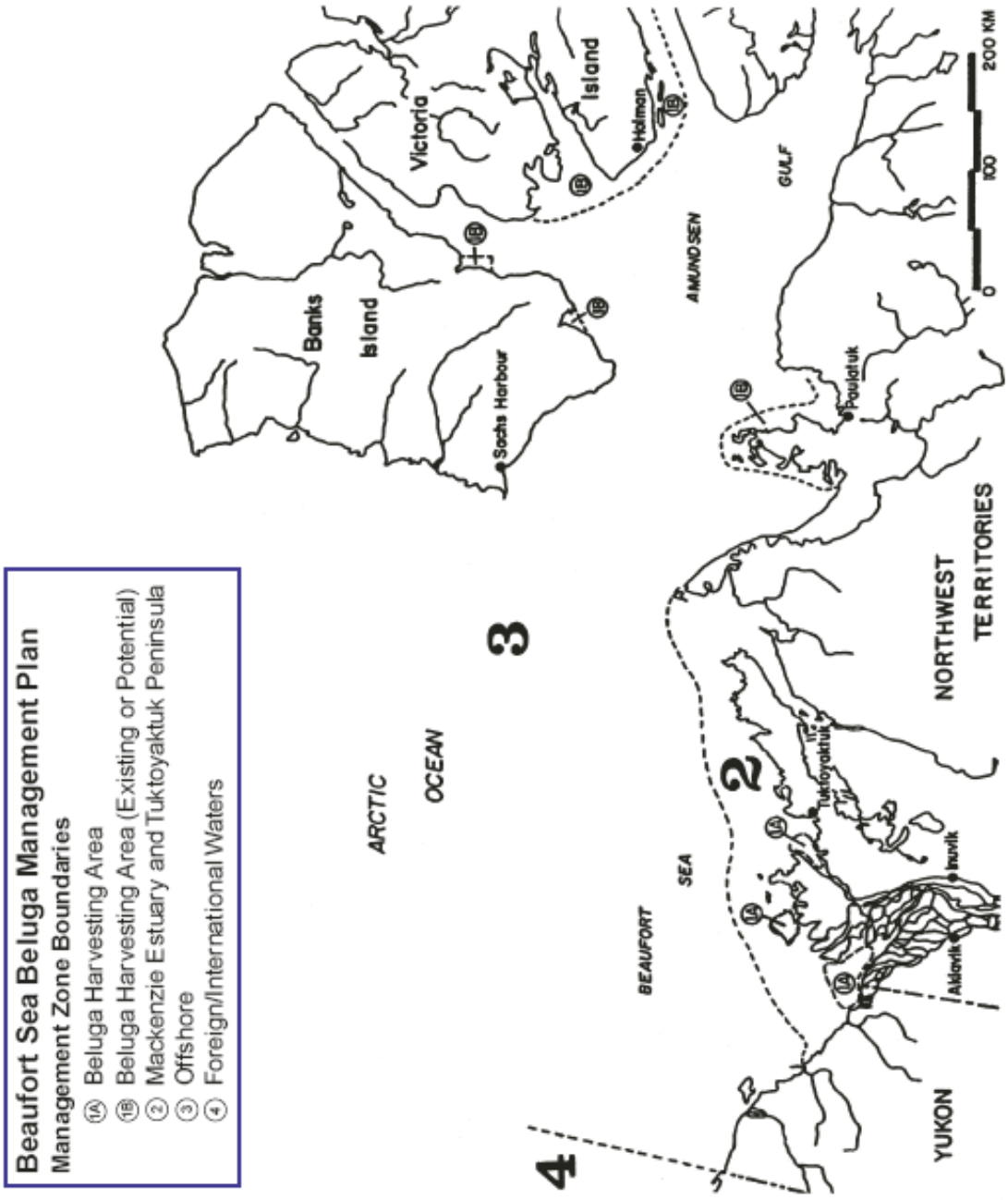
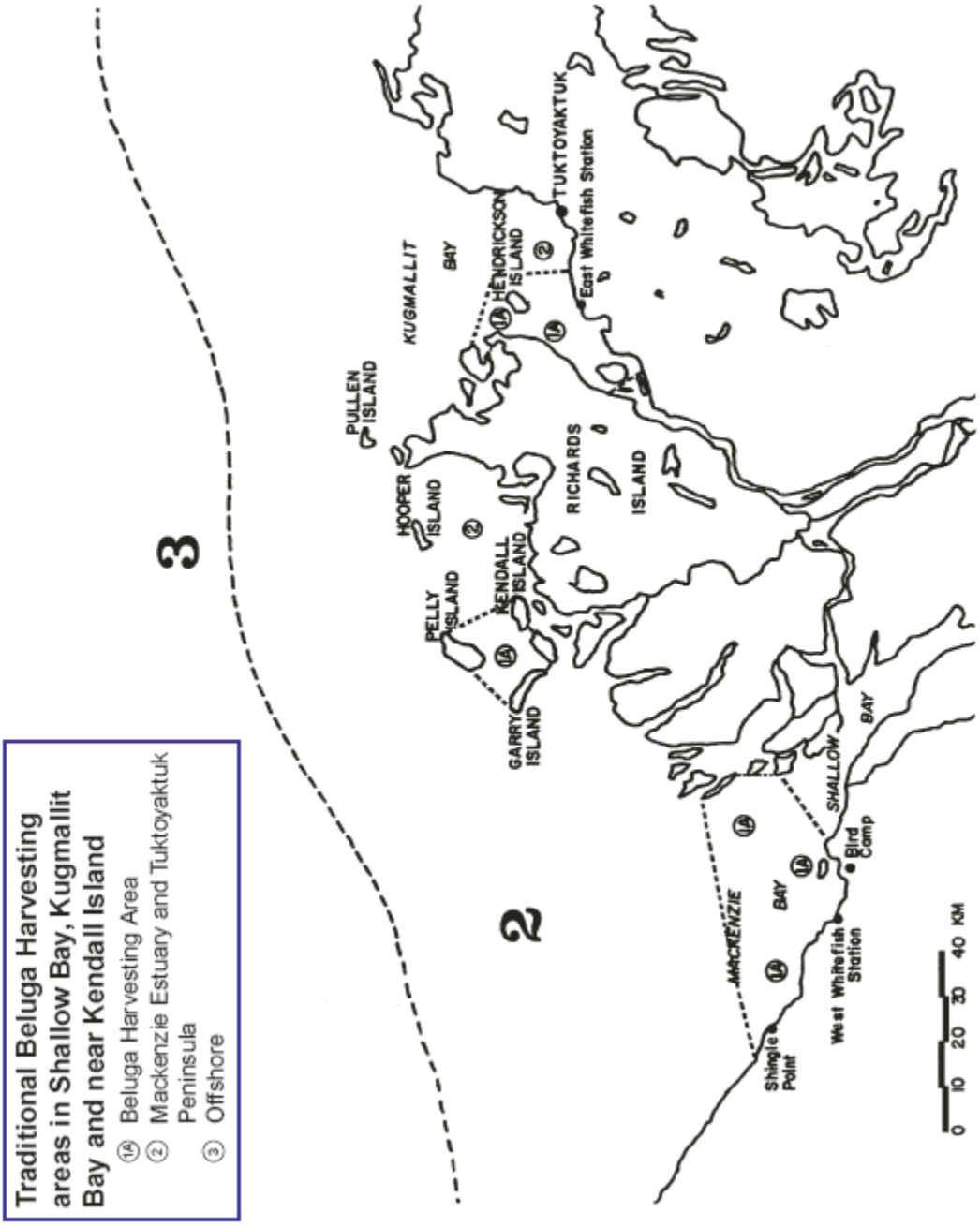


Figure 2: Zones Related to Traditional Harvesting



Descriptions and Guidelines - Zone 1

Zone 1a - Traditional Harvesting\Concentration Areas

This zone includes about 1800 square kilometres of shallow waters at the mouth of the Mackenzie River and encompasses the only known traditional summer concentration areas (Shallow Bay, east Mackenzie Bay and Kugmallit Bay) for the Beaufort Sea beluga stock. These areas are shallow (less than 2m), warm, brackish and highly turbid. Belugas are harvested in these areas by Inuvialuit from Inuvik, Tuktoyaktuk and Aklavik.

During the summer, the Canadian Beaufort Sea beluga stock concentrates in these areas. It has been suggested that beluga move among concentration areas, and between the estuary and the offshore during this period. Why beluga concentrate in estuaries is not well understood, but it could be for purposes of calving, calf rearing, moulting and/or socializing.

In 1999, the FJMC, the Inuvialuit, DFO, and the hydrocarbon industry agreed to collaborate on the development of integrated management planning for coastal and marine areas in the Inuvialuit Settlement Region. The Beaufort Sea Integrated Management Planning Initiative (BSIMPI), and the BSIMPI Senior Management Committee (SMC) are responsible for overseeing the development of a management planning process for ocean-related activities in the Beaufort Sea. One of its first actions was to form a Working Group to collaborate on ocean management. The BSIMPI Working Group evaluated the merits of establishing a Marine Protected Area (MPA) in the Zone 1a area. The work commenced early in 2001 and involved extensive analysis, consultation and discussion. Development of a Management Plan and Regulatory Intent outlining a strategy for achieving the objectives of the Tarium Niryutait Marine Protected Area has been completed and both the BSIMPI SMC and the FJMC have formally recommended to the Minister of Fisheries and Oceans Canada that the Tarium Niryutait Marine Protected Area be designated.

Through the discussions and consultations, the Management Plan and Regulatory Intent have been agreed to and signed-off by the member organizations of the BSIMPI SMC, BSIMPI WG, and the HTC's, Community Corporations and Elders Committees of Aklavik, Inuvik and Tuktoyaktuk. As a result, the FJMC has amended the Beluga Management Plan to reflect the outcome of the BSIMPI process and for those sections of the plan that refer to the Beluga Management Zone 1a area, the draft Regulatory Intent (Appendix A) will be substituted. The legal description to be included in the Tarium Niryutait MPA Regulations has been included in Appendix B. For greater clarity, this description will also be substituted and used to define the Zone 1a boundaries.

These amendments have been instituted in anticipation of the official designation of the Tarium Niryutait Marine Protected Area by the Minister of Fisheries and Oceans

Canada. The amendments are in force November 1st, 2005 through October 31st, 2006, with the potential for extension following a review by the FJMC and IGC. If the Minister, for any reason, does not designate the Beluga Management Zone 1a as the Tarium Niryutait Marine Protected Area, the Beaufort Sea Beluga Management Plan will revert to the Amended Third Printing (2001).

Zone 1b - Occasional or Potential Harvesting Areas

This zone includes areas where beluga are harvested by residents of Paulatuk and occasionally by residents of Holman, and where residents of Sachs Harbour have shown interest in hunting beluga in the future. At present there are no systematic data on beluga distribution or abundance in these locations.

Guidelines for Zones 1a and 1b

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 or on the shores of any Zone 1 waters nor to produce hydrocarbons or construct/operate any type of facility.

No mining activities (e.g. gravel removal) should be permitted within or on the shores of any Zone 1a waters.

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

All shipping activities (including dredging) should be confined to designated routes and areas. Passage through or close to Zone 1a 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 1a waters.

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

Recognizing the prohibitions identified above, it is recommended that parties proposing any development, government agencies evaluating such proposals, and other parties interested in development within or adjacent to Zone 1, seek the advice of the HTC's and FJMC. To ensure the protection of the beluga resource and harvest, HTC's and the FJMC should be consulted regarding any licenses, permits or operating procedures approved for activities within or adjacent to Zone 1 waters.

Descriptions and Guidelines - Zone 2 and 3

Description of Zones 2 and 3

Zone 2 includes the Mackenzie Shelf waters shallower than 20 meters that are not already included in Zone 1. It extends from Baillie Islands (Cape Bathurst) in the east to Kay Point on the Yukon coast to the west. This Zone encompasses a major travel corridor used by Beaufort beluga to move into, out of, and amongst the various bays of the Mackenzie estuary.

Zone 3 includes the remaining geographic range of beluga in the Canadian Beaufort Sea and Amundsen Gulf (waters greater than 20 m deep). Beluga are known to occur as far seaward as the permanent pack ice (the northern boundary), and as far east as Victoria Island (the eastern boundary). The Alaska-Yukon border forms the western boundary of Zone 3.

Each spring, beluga migrate from wintering areas in the Bering Sea to summering areas in the Beaufort Sea. Depending on a number of factors including time of year and ice conditions, the migration occurs along the edge of the land fast ice (Zone 2), far offshore through leads in the pack ice (Zone 3), or both. After the migration, from about late June through to late July or early August, a large proportion of the stock concentrates in the Mackenzie estuary (Zone 1a). However, at the same time, a large portion of the stock is widely distributed throughout both Zones 2 and 3. There is evidence to suggest calving may occur in these waters at this time.

During August, beluga are widely distributed throughout the offshore in both Zones 2 and 3. They tend to occur in greatest numbers in Zone 2 waters near headlands and in the lee of islands, where fishing is apparently most favorable. Feeding is probably their most important activity in these Zones during August. Beluga usually begin their return migration in mid-August, using both nearshore waters (Zone 2) and offshore waters (Zone 3). Few whales remain in the region past early September. Deep water generally precludes hunting of beluga in Zone 2; both deep water and distance precludes hunting in Zone 3.

Guidelines for Zone 2 and 3

Industrial activities or other projects may be permitted if they do not adversely affect the conservation of beluga and the protection of beluga habitat and beluga hunting, and they are conducted in a controlled and responsible manner.

Assessment of proposed activities must consider the direct effects on beluga (e.g.. contamination, disruption, displacement) as well as indirect effects (e.g.. salinity and integrity of ice, timing of breakup, food availability).

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

Assessments must consider the potential for cumulative impact and long-term effects.

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

Description and Guidelines - Zone 4

lnternational Waters

Zone 4 encompasses the range of the Canadian Beaufort Sea beluga population outside of Canadian waters, and includes the Alaskan Beaufort Sea, Chukchi Sea and Bering Sea. The entire beluga population is expected to occur within this zone during winter and during migrations. Virtually nothing is known of the distribution and activities of beluga on the wintering grounds, or the extent of mixing with others in the area. As well beluga are outside of Canadian waters for over six months of the year and may be subject to similar disturbances or perturbations as identified in the other zones.

Guidelines

Since cooperation is essential for responsible management of the beluga, an international agreement should be developed to ensure that beluga are managed and protected throughout their range.

As well, there should be an exchange of information between Canada and Alaska on industrial activities proposed or underway which could affect the well-being of the beluga.

TOURISM, BELUGAS AND BELUGA HUNTING

Beluga that summer in Canadian waters are distributed throughout the inshore and offshore areas. A portion of the stock concentrates in the inshore areas where traditionally they have been hunted by the Inuvialuit. Recently the interest in viewing both beluga and beluga hunting has increased and this trend is expected to continue.

Providing the opportunity to view beluga and beluga hunting/processing is a valid use of the resource. If uncontrolled however, such activity could have a negative impact on the traditional beluga hunting activities of the Inuvialuit. It could also lead to harassment of the beluga. Currently there are only a few operators conducting whale-watching/cultural immersion tours in the region, but interest is expected to increase in the near future.

Objectives

To facilitate tourism opportunities associated with belugas while minimizing the impacts of such activities on belugas and beluga harvesting.

Disruption of Subsistence Whale Hunting

It is recognized that whale hunting and tourism are not necessarily compatible activities. Hunters and Trappers Committees have prepared tourism guidelines for their respective hunting areas in order to alert the tourism sector about the desired levels and types of tourist activity.

The Tourism Guidelines provide the following:

- there shall be no water based tourism or related activity in Zone 1(a);
- subsistence hunting takes priority over tourism activities;
- HTC's will designate areas to be used for whale watching/tourism within the ISR;
- tourism operators must have a written Agreement with the appropriate HTC;
- specific Guidelines are provided covering harassment, timing of activity, tour length, photography, use of aircraft and protection of the environment.

(Complete Tourism Guidelines may be obtained from the Fisheries Joint Management Committee or the Community Hunters and Trappers Committees.)

The avoidance of conflict between resource harvesters and the tourism sector requires continuing cooperation and understanding.

Disturbance of Beluga

With respect to disturbance of beluga, many human activities can be controlled through application of the Hunters and Trappers Committee By-laws, the Marine Mammal Protection Regulations and the Tourism Guidelines. A general prohibition against disturbance is contained in the Department of Fisheries and Oceans legislation. In addition, the general guidelines developed by the Department of Fisheries and Oceans for whale watching should be adopted by the Hunters and Trappers Committees and distributed to tourism operators.

BY-LAWS AND REGULATIONS

The ongoing Implementation of this Plan requires a continuing firm commitment and coordinated effort by the Inuvialuit and the Government of Canada to be prepared to make changes to existing Legislation or formulate new laws as may be required. Parties to this Plan must recognize and be prepared to deal directly with any real or potential threat which may adversely affect beluga habitat.

Objectives

To protect the Beaufort Sea beluga resource and the harvest of that resource.

To formulate, amend and implement guidelines, bylaws, and regulations necessary to protect the beluga, beluga habitat and the beluga harvest.

Beluga Protection Regulations

The Marine Mammal Protection Regulations under the Fisheries Act are general in application and have been amended to recognize beneficiaries and their rights under the Inuvialuit Final Agreement. The new Oceans Act has been passed (1996) and contains provisions to establish Marine Protected Areas which can prescribe measures for the conservation and protection of a fishery or fishery habitat. This may provide recognition and protection for the Beluga Management Zones.

Hunters and Trappers Committee Hunting By-laws

All HTC's within the Inuvialuit Settlement Region have adopted community specific by-laws to ensure efficient and safe hunting practices. These by-laws provide support to the applicable sections of the Marine Mammal Regulations, are enforceable under these Regulations and set specific standards for each community's hunting activities.

The Beluga Hunting By-laws are accompanied by HTC Community Hunting Guidelines which reinforce the standards set by the By-laws and ensures that the hunting is conducted in the best possible manner. The HTC By-laws and Guidelines and an essential component of the Beluga Management Plan and may be modified from time to time. **The complete Beluga Hunting By-laws and Guidelines are found inside the back cover.**

The By-laws and Guidelines have already reduced hunting losses and wastage and will result in safer hunting.

Enforcement

Department of Fisheries and Oceans is responsible for the enforcement of the *Fisheries Act* and the Marine Mammal Protection Regulations. The Hunters and Trappers Committees By-law can be enforced by Fishery Officers under these Regulations.

SUPPORTING PROGRAMS

Monitoring and Research

Monitoring of the Beaufort Sea beluga and the annual harvest are necessary to provide information required to evaluate the soundness of management strategies and the health of the beluga.

In light of information gaps in the database for Beaufort Sea beluga, the FJMC, DFO and the Environmental Studies Research Funds (ESRF) sponsored a workshop to examine the status and other important questions related to Beaufort Sea Beluga. The workshop was held in Vancouver, BC on February 3-6, 1992, and was attended by individuals representing various agencies from both Alaska and the ISR, technical advisors and hunters.

As a result of research priorities identified by the workshop, FJMC sponsored a number of research projects including: an aerial survey, a DNA stock genetics study, and a community based traditional knowledge study. The results of these studies have been discussed at an FJMC sponsored workshop in the spring of 1996.

Objectives

To provide the necessary biological information for the conservation, management protection and optimal utilization of Beaufort Sea beluga.

To provide the new biological information about the Beaufort Sea beluga required for the implementation of this management plan.

Requirements

Monitoring activities should be designed to meet the goals and objectives of this Plan, especially those relating to the Harvesting and Conservation components. Monitoring and research activities should make use of the significant amount of scientific and traditional knowledge collected since the first Beaufort Sea Beluga Workshop.

All research programs will make every effort to include local and traditional knowledge, and wherever possible, Inuvialuit will participate in research activities.

EDUCATION AND PUBLIC AWARENESS

The management activities described in this Plan must be supported by educational programs. As with many traditional pursuits, the transfer to younger Inuvialuit of knowledge related to hunting skills and practices has been accomplished with limited success. As a result, programs are required to reverse this trend.

Objectives

To initiate school and hunter education programs.

Programs

Classroom Instruction

Targeted at school-aged children, this program will deal with the history and traditions associated with Inuvialuit whaling, as well as the principles of beluga management. This program should be developed jointly by beluga hunters, wildlife managers and educators, and should be delivered as part of the regular school curriculum.

Practical Training

This component, targeted at potential harvesters, should focus on hunting techniques as well as on the principles of beluga management. Since lectures and films can only supplement, not replace practical experience, such a program should best be carried out by the HTC's. Establishment of an educational whaling camp would serve to provide information on all aspects of proper, responsible and safe beluga harvesting, both to school children and beluga hunters.

Teaching Aids

To convey the principles of beluga management and proper methods of harvesting beluga a Hunting Manual and Video will be developed. The manual and video will specify and describe hunting equipment and techniques, outline by-laws and regulations, and information and requirements of the beluga monitoring program.

An education video covering hunting equipment and techniques, describing by-laws and regulations, and traditional preparation and preservation of the muktuk and meat has been completed and is available for viewing.

A traditional knowledge study incorporating the experience and wisdom of the elder beluga hunters has also been completed and is available for reading.

DEFINITIONS

Conservation: the management of the wildlife populations and habitat to ensure the maintenance of the quality, including the long-term optimum productivity, of these resources and to ensure the efficient utilization of the available harvest.

Designated Routes: those marine transportation corridors established, following consultation with the Department of Fisheries and Oceans, by Transport Canada.

Optimum Sustainable Harvest: the level of harvest that generates the greatest net benefit for the Inuvialuit while ensuring the long-term sustainability of beluga within the Inuvialuit Settlement Region.

Subsistence Usage: with respect to wildlife other than migratory game birds, migratory nongame birds and migratory insectivorous birds, subject to international conventions, the taking of wildlife by Inuvialuit for their personal use for food and clothing and includes the taking of wildlife for the purpose of trade, barter and, subject to Section 12, sale among Inuvialuit and trade, barter and sale to any person the non-edible by-products of wildlife that are incidental to the taking of wildlife by Inuvialuit for their personal use.

Total Allowable Catch: the number of beluga that can be removed from the Beaufort Sea beluga stock during any year without reducing the number of beluga in the overall population.

ACKNOWLEDGEMENTS

The Beaufort Sea Beluga Technical Working Group was established by the Department of Fisheries and Oceans in 1985, and submitted its draft of the Beaufort Sea Beluga Management Strategy to the Fisheries Joint Management Committee in June 1987. Members of the Group were J.T. Strong (DFO, Chair), A. Aviugana (Inuvik), R. Barnes (DFO), E. Birchard (Esso), B. Day (Inuvik), F. Elanik (Aklavik), N. Green (Paulatuk), B. Kimiksana (Tuktoyaktuk), B. Smiley (DFO), and G. Yaremchuk (DFO).

In 1988-89, a community representative from each of the Tuktoyaktuk (R. Pokiak), Aklavik (T. Elanik) and Inuvik (R. Binder) Hunters and Trappers Committees, assisted by their respective Hunters and Trappers Committee Resource Person (F. Wolki, D. Malegana and A. Kasook, respectively), participated in four workshops coordinated by L. Harwood, Resource Biologist, Fisheries Joint Management Committee, to prepare a second draft of the management plan. They then presented the information from the draft plan to their community resource users.

The Committee would also like to acknowledge the contribution of a former Committee member, Michelle Roberge, who played a lead role in reviewing and editing the initial drafts of the Plan.

The third printing of the Beluga Management Plan was specially dedicated to the memory of Alexander Charles Aviugana who passed away on May 8, 1994. Alex was a founding member of the FJMC and also held numerous positions with other Inuvialuit organizations, but always had time for the business of the Committee. In many ways Alex shaped the FJMC. His insistence on community based monitoring and assessment projects, in addition to the training of Inuvialuit in resource management resulted in the HTC's becoming competent partners in the delivery of programs such as beluga and fish monitoring activities. He always stressed the importance of incorporating traditional knowledge into management practises and decision making, as well as the need to educate the younger generation. In short, Alex served both as a catalyst and a guide to the FJMC, helping everyone to see old issues in a new light, and to channel our efforts in productive directions. He never let anyone forget the provisions of the Final Agreement, nor the intent behind those provisions. We can all be proud of Mr. Aviugana's achievements and the legacy he left for all of us.

CREDITS

1. *1, Nuligak.* 1966. M. Metayer, (tr.) Toronto, Peter Martin

2. *The Whale Trap at Kittigazuit* has been reproduced, with permission, from *Beluga Hunters, An Archaeological Reconstruction of the History and Culture of the Mackenzie Delta Kittegaryumiut.* McGhee, Robert. 1988. Canadian Museum of Civilization.

Signatory Page

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APPENDIX A

Clarification of the Regulatory Intent of the proposed Tarium Niryutait MPA

As approved by BSIMPI SMC, June 2005

Designation

The Tarium Niryutait Marine Protected Area (MPA) includes three separate areas in the Mackenzie Estuary and Beaufort Sea. The MPA consists of the surface of the water, the water column, and the seabed. The MPA's boundaries are Natural Resources Canada coordinates for the offshore boundary and the low water mark for the landward boundary.

Background

The Inuvialuit Final Agreement sets out the terms of a settlement between the Committee for Original People's Entitlement representing the Inuvialuit, and the Government of Canada. As prescribed by Section 14 (61) of the Inuvialuit Final Agreement, the Minister of Fisheries and Oceans established the Fisheries Joint Management Committee (FJMC) in 1986. The Committee was established to assist Canada and the Inuvialuit in administering the rights and obligations relating to fisheries in the Inuvialuit Settlement Region as described in the Final Agreement, to assist the Minister of Fisheries and Oceans in carrying out his responsibilities for the management of fisheries and to advise the Minister on all matters relating to fisheries affecting the Inuvialuit and the Inuvialuit Settlement Region.

The FJMC is responsible for managing the Beaufort Sea beluga, and does so by implementing the Beaufort Sea Beluga Management Plan. This plan identifies beluga concentration areas as Zone 1a management zones. This zone is managed as a protected area. The Tarium Niryutait MPA gives regulatory effect to the protected status of three Zone 1a areas.

Purpose

The purpose of the Tarium Niryutait MPA is to conserve and protect the biological resources that are found in the MPA, consisting of three areas, Imaryuk (Shallow Bay), Kittigaryuit (Kugmallit Bay), and Okeevik (East Mackenzie Bay near Kendall and Pelly Islands); and to preserve the viability of a healthy population of beluga whales upon which the Inuvialuit harvest depends.

Conservation Objectives

The Conservation Objectives of the Tarium Niryutait MPA are:

- To conserve and protect beluga whales and the supporting ecosystem within the Tarium Niryutait Marine Protected Area;
- To support the goals of the Beaufort Sea Beluga Management Plan and the Inuvialuit Final Agreement:
    - to maintain a thriving population of beluga whales and beluga habitat in the Beaufort Sea; and
    - to provide for optimum sustainable harvest of beluga whales by the Inuvialuit within the MPA.

Management Zones

There are two types of management zones in the Tarium Niryutait MPA:

(a) The Special Management Zone, the boundaries of which coincide with the marine portions of Significant Discovery Leases (SDL) # 025, SDL #028, and SDL #092. This zone is approximately 1.1 % of the total MPA area.

(b) The Primary Protection Zone which includes all areas within the MPA boundary outside the Special Management Zone.

Prohibitions

The Prohibitions Section prohibits activities in the Tarium Niryutait MPA. The Exemptions Section provides exemptions to these prohibited activities. These exempted activities must be conducted consistent with the conservation objectives of the MPA.

Prohibited activities are:

(a) Approaching, disturbing or interfering with beluga whales in the Tarium Niryutait MPA;

(b) Disturbance, damage, destruction or removal of any marine organism or any part of its habitat in the Tarium Niryutait MPA;

(c) Disturbance, damage, destruction or removal of any part of the seabed, including the sand, granular resources or subsoil in the Tarium Niryutait MPA;

(d) Any deposit[1] of any substance in the Tarium Niryutait MPA, or any deposit adjacent to the MPA that results in any deposit in the area; and any deposit of any substance in any adjacent area that is likely to result in the disturbance, damage, destruction, or removal of anything under (b) or (c).

(e) Travel on open water in the Tarium Niryutait MPA.

[1] Depositing will be defined in the Regulations to include depositing, discharge or dumping.

Exemptions

1. Inuvialuit Harvesting

Inuvialuit harvesting occurs in the Tarium Niryutait MPA. This includes Inuvialuit harvesting rights under the Inuvialuit Final Agreement, as well other aboriginal peoples who may have harvesting rights through adjacent claims. This exemption does not include all aboriginal peoples throughout the country.

2. Inuvialuit and Community Travel

Inuvialuit and community members may travel throughout the year in the Tarium Niryutait MPA.

3. Marine Tourism

Recreational non-commercial travel by the public in motorized and non-motorized boats may occur in the Tarium Niryutait MPA. Travel by the public is subject to not approaching, disturbing or interfering with beluga whales.

Commercial marine tourism may occur by boat in the Tarium Niryutait MPA subject to the prohibitions (e.g. after the beluga have left the area). The Management Body will, in consultation with the Hunters and Trappers Committees, determine an acceptable date annually for commercial marine tourism to take place in each of the three areas. Commercial marine tourism activities are exempt from prohibition (e) provided they:

(a) Are screened, reviewed and authorized under existing licencing processes;
(b) Comply with the terms and conditions of the licence; and
(c) Comply with the dates determined by the Management Body.

4. Boating and Shipping

Other than the prior exemptions for Inuvialuit and community travel, and marine tourism and subsection (b) below, all activities by ships and boats in the Tarium Niryutait MPA are confined to community supply routes, which may be marked by Canadian Coast Guard placed buoys:

(a) The exemption allows ships, boats, and any marine traffic transiting through the Tarium Niryutait MPA to use and dredge community supply routes, to travel through the area for commerce and other marine activities.
(b) Ships and boats may only travel outside the community supply routes in the Tarium Niryutait MPA to support existing leases and licences in Special Management Zone. This travel, can be conducted under existing authorization

processes using best practises and best technologies to minimize impacts, and consistent with the conservation objectives of the Marine Protected Area.

5. Commercial and Sport Licences[2]

Commercial and sport licenses and authorizations are exempt from the prohibitions regarding removal of living aquatic organisms provided they:

(a) Are screened, reviewed and authorized under existing licencing processes;
(b) Comply with the terms and conditions of the licence; and
(c) Are consistent with the conservation objectives of the Tarium Niryutait MPA.

6. Scientific Licences and Authorizations

Scientific licenses and authorizations for the purposes of management or for monitoring for effectiveness of the Tarium Niryutait MPA are exempt from the Prohibitions Section provided they:

(a) Are screened, reviewed and authorized under existing authorization processes;
(b) Comply with the terms and conditions of the authorization; and
(c) Are consistent with the conservation objectives of the Tarium Niryutait MPA.

7. Emergency, Safety and Sovereignty

The Prohibitions Section does not apply to any movement or other activity of a ship or aircraft in the Tarium Niryutait MPA if:

(a) The movement or other activity is carried out under an emergency, or for public safety, law enforcement, national security, or under the exercise of Canadian sovereignty;
(b) The movement or other activity is carried out for the purpose of an emergency response under the direction, command or control of the appropriate authorities.

8. Other Activities

Ice road construction, operation and maintenance may occur during the ice cover period[3] in the Tarium Niryutait MPA subject to the existing authorization process.

Seismic exploration activity will be considered in the Tarium Niryutait MPA to support existing leases and licences in the Special Management Zone, subject to:

(a) All authorizations being issued under existing authorization processes;

[2] Sport licences are administered by the GNWT. Commercial licences are issued by DFO with the advice of FJMC.
[3] Ice cover is ice on the surface of an open body of water.

(b) Using best practises and best technologies, and consistent with conservation objectives of the Marine Protected Area;
(c) Minimizing any disturbance, destruction or damage to any marine organism and its habitat; and
(d) Minimizing the disturbance, destruction, damage, removal, or deposit in the Marine Protected Area.

Seismic exploration activity may be considered in the Tarium Niryutait Marine Protected Area during the ice cover period when exploiting hydrocarbon rights outside the Marine Protected Area only if there are no other ways to conduct this seismic exploration activity external to the Marine Protected Area. Approval of the activity will be subject to the proponent establishing that there will be no significant impact upon marine mammals, fish, and habitat in the Marine Protected Area, taking into account the cumulative impact of this seismic activity in conjunction with other activities in and adjacent to the Marine Protected Area. If this seismic exploration activity does proceed, it is subject to the following conditions:

(a) All authorizations are issued under existing authorization processes;
(b) The activity is conducted using best practises and best technology, and consistent with conservation objectives of the Marine Protected Area;
(c) Minimizing any disturbance, destruction or damage to any marine organism and its habitat; and
(d) Minimizing the disturbance, destruction, damage, removal, or deposit in the Marine Protected Area.

Pipeline construction, operation and maintenance may be considered in the Tarium Niryutait MPA during the ice cover period to support existing leases and licences in the Special Management Zone subject to the following conditions:

(a) All authorizations are issued under existing authorization processes;
(b) The activity is designed to result in minimal disturbance, damage, destruction, removal, or deposit in the Marine Protected Area; and
(c) The activity is conducted using best practises and best technology, is consistent with conservation objectives, and minimizes impacts on the Marine Protected Area.

Pipeline construction, operation and maintenance through the Tarium Niryutait MPA may be considered during the ice cover period when exploiting hydrocarbon licences outside the Marine Protected Area only if there is no other possible option or route, and this option or route significantly minimizes the overall ecological impact of the pipeline on the Beaufort Sea area. If this pipeline activity does proceed, it is subject to the following conditions:

(a) All authorizations are issued under existing authorization processes;
(b) The activity is designed to result in minimal disturbance, damage, destruction, removal, or deposit in the Marine Protected Area; and
(c) The activity is conducted using best practises and best technology, is consistent with conservation objectives, and minimizes impacts on the Marine Protected Area.

Pipeline maintenance may be conducted in the Tarium Niryutait MPA at any time of the year, subject to the following conditions:

(d) All authorizations are issued under existing authorization processes;
(e) The activity is designed to result in minimal disturbance, damage, destruction, removal, or deposit in the Marine Protected Area; and
(f) The activity is conducted using best practises and best technology, is consistent with conservation objectives, and minimizes impacts on the Marine Protected Area.

9. Special Management Zone

Exploratory drilling and production, and associated activities within the Special Management Zone are exempt from Prohibition Section (b-c) providing the activity is:

(a) Subject to all authorizations being issued under existing authorization processes;
(b) Limited to the Special Management Zone.
(c) Does not result in any disturbance, damage, destruction, removal, or deposit in the Primary Protection Zone; and
(d) Conducted using best practises and best technologies to be consistent with conservation objectives, and to minimize impacts on the Tarium Niryutait MPA.

Reports of Accidents and Spills

Every accident or spill that results in any disturbance, damage, destruction or removal referred to in the Prohibition Section must be immediately reported to the Canadian Coast Guard or nearest Fisheries and Oceans office.

Any accident which may cause a spill of any kind must be immediately reported to the NWT Spill Line.

All proposed activities within the Tarium Niryutait MPA are subject to the existing regulatory process.

APPENDIX B

Legal Description of the Proposed MPA

Traditional Beluga Harvesting areas in Shallow Bay, Kugmallit Bay and near Kendall Island.

Notes: This description is based on georeferenced satellite imagery taken in 2001 and aerial photography taken in 2000 at 1:5,000 scale. Due to erosion and accretion, the points defined herein may not match exactly the landforms as depicted on 1:50,000 maps currently available.

All geographic coordinates are based upon North American Datum of 1983.

All geographic coordinates are expressed in degrees, minutes and seconds.

Any references to straight lines means points joined directly on a North American Datum of 1983 Universal Transverse Mercator projected plane surface.

Unless specifically defined otherwise, any reference to shore is intended to follow a generalized form of the shore, to include gravel spits or beach ridges, and to extend across small channels and openings to inland ponds.

A) Okeevik – Marine Protected Area

In the Northwest Territories;

All that part of the Mackenzie Estuary being more particularly described as follows,

1. Commencing at a point on the northeast shore of Pelly Island, a transition between the mainland and a gravel spit that extends to the east, where it intersects with longitude 135°25’08” W at approximate latitude 69º38’09” N;
2. Thence, southerly across the gravel spit a distance of approximately 40 metres to the south side of the gravel spit where the shore intersects with longitude 135°25’06” W at approximate latitude 69°38’08” N;
3. Thence, southerly along the shore of Pelly Island to the intersection with the north bank of an inland channel, latitude 69°37’44” N at longitude 135°24’39” W;
4. Thence, southeasterly in a straight line to the point of intersection of the east shore of Kendall Island with latitude 69º29’49” N at approximate longitude 135°12’37” W;
5. Thence, westerly and northerly along the north shore of Kendall Island to the tip of a gravel spit, which forms a channel to a large inland bay, at approximate latitude 69°30’43” N at longitude 135°16’50” W;
6. Thence, southerly and southwesterly along the south shore of the inland bay to its intersection with longitude 135°18’52” W at approximate latitude 69°29’27” N;

7. Thence, westerly in a straight line approximately 180 metres to the intersection of the west shore of Kendall Island with latitude 69°29’23” N at approximate longitude 135°19’05” W;
8. Thence, westerly, southerly and southeasterly along the west shore of Kendall Island to its intersection with latitude 69°28’07” N at approximate longitude 135°20’18” W;
9. Thence, westerly in a straight line to the point of intersection of the east shore of an unnamed Island with latitude 69º27’36” N at approximate longitude 135°24’13” W;
10. Thence, southwesterly along the shore of said unnamed Island to its southern tip, approximate latitude 69º27’05” N at longitude 135°24’58” W;
11. Thence, southeasterly in a straight line across a channel to the point of intersection of the shoreline on the eastern tip of another unnamed Island with latitude 69°26’58” N at approximate longitude 135°24’54” W;
12. Thence, westerly along the northern shore of said island to the east bank of a small channel through the island, approximate latitude 69°27’28” N at longitude 135°28’26” W;
13. Thence, northerly in a straight line approximately 140 metres to the west bank of the small channel, approximate latitude 69°27’32” N at longitude 135°28’27” W;
14. Thence, southwesterly and southerly along the western shore of the unnamed Island to its intersection with latitude 69°25’29” N at approximate longitude 135°31’58” W;
15. Thence, northwesterly in a straight line to the point of intersection of the south shore of Garry Island with longitude 135°35’04” W at approximate latitude 69º26’30” N;
16. Thence, easterly to a point on the south shore of Garry Island, a transition between the gravel spit and foreshore lowland extending to the east, where it intersects with longitude 135°34’39” W at approximate latitude 69°26’35” N;
17. Thence, northerly along the east upper shore of Garry Island, which is also the west bank of an old channel separating the foreshore lowland from the mainland, to a point of land at latitude 69º27’30” N at approximate longitude 135°36’06” W;
18. Thence, continuing northerly along the east shore of Garry Island to a point of land at latitude 69°28’37” N at approximate longitude 135°36’31” W;
19. Thence, westerly along the shore of Garry Island to the intersection with the eastern bank of an inland channel at approximate latitude 69°28’39” N and approximate longitude 135°37’55” W;
20. Thence, southerly along the east bank of the channel to an inland pond, along the shore of the inland pond to the west bank of the channel, and northerly along the west bank of the channel to the inlet;

21. Thence, northwesterly along the northeastern shore of Garry Island to a gravel spit extending to the east at the northeastern part of the island, easterly and westerly along the shore of the spit to the intersection of the north shore with longitude 135°45’31” W at approximate latitude 69°30’32” N;
22. Thence, northeasterly in a straight line to the point of intersection of the west shore of Pelly Island with latitude 69º34’59” N at approximate longitude 135°35’27” W;
23. Thence, northeasterly along the northwestern shore of Pelly Island to the point of commencement, following any beach ridges and extending across any inlets or channels so as to consider any inland bays or ponds as part of the landmass.

B) Kittigaryuit - Marine Protected Area

Notes : In this section any reference to East Channel means the East Channel of the Mackenzie River.

In the Northwest Territories;

All that part of the Mackenzie Estuary being more particularly described as follows:

1. Commencing at the point of intersection of the east shore of Summer Island with latitude 69º35’04” N at approximate longitude 133°48’42” W;
2. Thence, easterly in a straight line to the intersection of latitude 69º34’00” N with longitude 133°28’00” W;
3. Thence, southerly in a straight line to the point of intersection of the south shore of Kugmallit Bay with longitude 133°26’45” W at approximate latitude 69º23’28” N;
4. Thence, westerly along the south shore of Kugmallit Bay to the inlet to a small inland pond to the south at approximate latitude 69°23’39” N and longitude 133°30’05” W;
5. Thence, southerly, westerly and northerly along the shore of the inland pond back to the point of entry;
6. Thence, westerly along the south shore of Kugmallit Bay to the inlet to a small inland pond to the south at approximate latitude 69°22’54” N and longitude 133°35’38” W;
7. Thence southerly and northerly along the shore of the inland pond back to the point of entry;
8. Thence, southwesterly along the south shore of Kugmallit Bay and then the east shore of Kittigazuit Bay to a point of land of a large inland bay at approximate latitude 69°20’32” N and longitude 133°40’45” W;
9. Thence, generally southwesterly along the sinuosities of the shore of the inland bay of Kittigazuit Bay to a point of land of the bay where it intersects latitude 69°19’01” N at approximate longitude 133°42’36” W;

10. Thence, westerly in a straight line a distance of approximately 150 metres across a narrow channel to the opposite shore of the bay where it intersects latitude 69°18’57” at approximate longitude 133°42’44” W;

11. Thence, generally southwesterly, northerly and northeasterly along the sinuosities of the shore of the inland bay to a point of land of the bay at approximate latitude 69°20’38” N and longitude 133°43’20” W;

12. Thence, southwesterly along the south shore of Kittigazuit Bay and then southerly along the right bank of the East Channel to the point of intersection with longitude 134°07’00” W at approximate latitude 69°15’04” N;

13. Thence, northerly in a straight line to the point of intersection of the left bank of the East Channel with a large channel of the river to the north at approximate latitude 69º16’27” N and longitude 134°05’56” W;

14. Thence, northerly along the left bank of the large channel of the East Channel to a point of land where the East Channel enters into Kittigazuit Bay, said point also the left bank of a smaller channel to the north separating a foreshore lowland from the mainland, at approximate latitude 69°20’49” N and longitude 134°02’14” W;

15. Thence, northerly along the left bank of the small channel to the intersection of an old channel to the southwest and a stream to the west at approximate latitude 69°23’55” N and longitude 133°59’17” W;

16. Thence, south along the east shore of the old channel to its southern limit at approximate latitude 69°23’32” N and longitude 133°59’57” W, then continuing north along the west shore of the old channel back to the point of intersection;

17. Thence, westerly along the south bank of the inland stream to its intersection with longitude 134°00’58” W at approximate latitude 69°24’06” N, and then continuing east along the north shore of the stream back to the intersection point;

18. Thence northerly along the left bank of the small channel to the point of land where the channel enters Kittigazuit Bay at approximate latitude 69°24’27” N and longitude 133°54’16” W;

19. Thence northerly along the west shore of Kittigazuit Bay and then Kugmallit Bay to the inlet to a small inland pond to the west at approximate latitude 69°26’58” N and longitude 133°50’10” W;

20. Thence, westerly and easterly along the shore of the inland pond back to the point of entry;

21. Thence, northerly along the west shore of Kugmallit Bay to an inlet to a long narrow inland pond to the west at approximate latitude 69°28’18” N and longitude 133°48’24” W;

22. Thence, westerly along the south shore of the inland pond and associated stream to its intersection with longitude 133°51’20” W at approximate latitude 69°27’55” N, and then continuing easterly on the north shore back to the point of entry;

23. Thence, northerly along the west shore of Kugmallit Bay to the inlet of a small inland pond to the west at approximate latitude 69°29’30” N and longitude 133° 47’15” W;
24. Thence, southwesterly, northerly and easterly along the shore of the inland pond back to the point of entry;
25. Thence, northerly along the west shore of Kugmallit Bay to the inlet to an small inland pond to the southwest at approximate latitude 69°33’11” N and longitude 133°47’39” W;
26. Thence, southeasterly, westerly and northwesterly along the shore of the inland pond back to the point of entry;
27. Thence, northerly along the west shore of Kugmallit Bay to the northern tip of the mainland, which forms a bay adjacent to Summer Island, at approximate latitude 69°34’17” N and longitude 133°47’45” W;
28. Thence, southwesterly along the east shore of the bay to a point of land where it intersects with lat 69°32’48” N at approximate longitude 133°51’13” W;
29. Thence, westerly in a straight line to the point of intersection of the south shore of Summer Island with latitude 69º32’51” N at approximate longitude 133°52’06” W;
30. Thence, westerly, northerly, easterly and northerly along the sinuosities of the bays on the southern and eastern shore of Summer Island to the point of commencement.

C) Imaryuk - Marine Protected Area

In the Northwest Territories and Yukon Territory;

All that part of the Mackenzie Bay being more particularly described as follows:

1. Commencing at the point of intersection of the west shore of an unnamed Island, of the Olivier Islands grouping, with longitude 136°15’35” W at approximate latitude 69º08’05” N;
2. Thence, southeasterly along the west shore of said Island, across the inlet to any channels, to the point of intersection with longitude 136°07’45” W at approximate latitude 69º04’29” N;
3. Thence, southerly in a straight line to the point of intersection of the west shore of an unnamed Island with latitude 69º03’41” N at approximate longitude 136°07’08” W;
4. Thence, southerly along the west shore of the unnamed Island to the point of intersection with longitude 136°04’45” W at approximate latitude 69°01’21” N;
5. Thence, south in a straight line to the point of intersection of the north shore of an unnamed Island with longitude 136°04’45” W at approximate latitude 69°01’17” N;

6. Thence, westerly and southeasterly along the west shore of the unnamed Island to the point of intersection with longitude 136°04’15” W at approximate latitude 69°00’41” N;
7. Thence, southeasterly in a straight line to the point of intersection of the north shore of an unnamed Island with longitude 136°04’12” w at approximate latitude 69°00’38” N;
8. Thence, southwesterly and southeasterly along the west shore of the unnamed Island to the point of intersection with longitude 136°04’25” W at approximate latitude 69°00’32” N;
9. Thence southerly in a straight line to the point of intersection of the north shore of an unnamed Island with longitude 136°04’25” W at approximate latitude 69°00’29” N;
10. Thence, southeasterly along the west shore of the unnamed Island to the southwesterly tip of the island at approximate latitude 69°00’15” N and longitude 136°04’45” W;
11. Thence, south in a straight line to the point of intersection of the north shore of an unnamed Island with longitude 136°04’45” W at approximate latitude 69°00’12” N;
12. Thence, westerly along the north shore of the unnamed Island to the northwestern tip at approximate latitude 69°00’20” N and longitude 136°06’54” W;
13. Thence, southerly in a straight line to the point of intersection of latitude 68º57’00” N with longitude 136°10’00” W;
14. Thence, southwesterly in a straight line to the point of intersection of latitude 68º55’00” N with longitude 136°15’00” W;
15. Thence, westerly in a straight line to a point of land of the mainland between Shallow Bay and Shoalwater Bay, at the point of intersection of the shore of Mackenzie Bay with longitude 136°32’17” W at approximate latitude 68º54’03” N;
16. Thence, southwesterly along the shore of Mackenzie Bay to Ministicoog Channel at approximate latitude 68°53’14” N and longitude 136°34’11” W;
17. Thence, southeasterly along the right bank of the Ministicoog Channel to the intersection with longitude 136°25’58” W at approximate latitude 68°51’56” N;
18. Thence, southeast across the channel to the left bank and then southwest along the left bank to the intersection with a small channel at approximate latitude 68°51’46” N and longitude 136°26’22” W;
19. Thence, northwest across the small channel to the opposite bank, said point being the left bank of the Ministicoog Channel, and continuing northwesterly along the left bank of said channel to Shoalwater Bay, across inlets to any other smaller channels;

20. Thence, westerly along the shore of Shoalwater Bay to a secondary channel of Moose Channel at approximate latitude 68°51’59” N and longitude 136°38’30” W;

21. Thence, southerly along the right bank of Moose Channel to the intersection with latitude 68°49’55” N at approximate longitude 136°33’26” W;

22. Thence, west in a straight line across the channel to the opposite bank and continuing northwesterly along the left bank to the inlet to a large inland pond to the west at approximate latitude 68°50’09” N and longitude 136°34’16” W;

23. Thence, westerly, northerly and easterly along the shore of the inland pond back to the point of entry, then northwesterly along the left bank of Moose Channel to Shoalwater Bay;

24. Thence, southeasterly along the shore of Shoalwater Bay another secondary channel of Moose Channel at approximate latitude 68°51’43” N and longitude 136°41’55” W;

25. Thence, southeasterly along the right bank of Moose Channel to the intersection with longitude 136°41’11” W at approximate latitude 68°51’22” N;

26. Thence, south in a straight line across the channel to the opposite bank, then westerly along the left bank to the intersection with a smaller channel at approximate latitude 68°51’15” N and longitude 136°42’10” W;

27. Thence, northwesterly in a straight line across the channel to the opposite bank, said point being the left bank of Moose Channel, and continuing northerly along the left bank of said channel to Shoalwater Bay;

28. Thence, westerly along the shore of Shoalwater Bay to the inlet to an inland pond to the south at approximate latitude 68°51’28” N and longitude 136°46’02” W;

29. Thence, southwesterly, westerly and northeasterly along the shore of the inland pond back to the point of entry;

30. Thence, westerly along the shore of Shoalwater bay to a channel at approximate latitude 68°51’38” N and longitude 136°46’50” W;

31. Thence, southeasterly along the right bank of the channel to the intersection with latitude 68°50’44” N at approximate longitude 136°45’52” W;

32. Thence, west in a straight line to the opposite bank of the channel, then northwesterly along the left bank to Shoalwater Bay, at which point it becomes the right bank of Scowlake Channel;

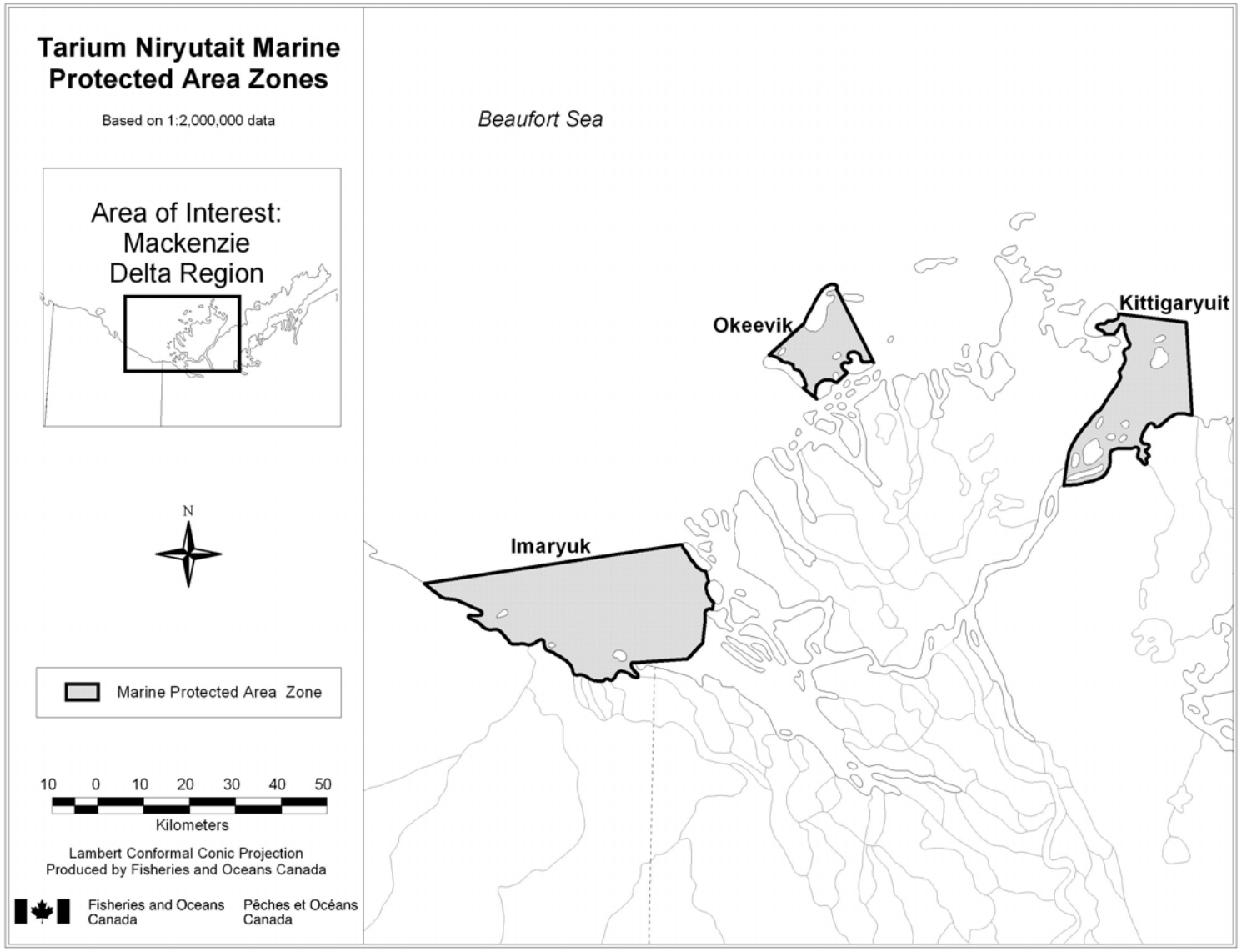
33. Thence, southwest along the right bank of Scowlake Channel to the intersection with longitude 136°48”44” N at approximate latitude 68°51’43” W;

34. Thence, north across the channel to the opposite bank, then northerly along the left bank of the Scowlake Channel to Shoalwater Bay;

35. Thence, westerly along the shore of Shoalwater Bay to a channel at approximate latitude 68°52’27” N and longitude 136°50’33” W;

36. Thence, southerly along the right bank of the channel to the intersection with longitude 136°51’01” W at approximate latitude 68°51’43” N;
37. Thence, north in a straight line across the channel to the opposite bank, then easterly and northerly along the left bank of the channel to Shoalwater Bay;
38. Thence, westerly along the shore of Shoalwater Bay to a channel at approximate latitude 68°52’47” N and longitude 136°51’51” W;
39. Thence, southerly along the right bank of the channel to the intersection with latitude 68°52’35” N at approximate longitude 136°51’47” W;
40. Thence, west in a straight line across the channel to the opposite bank, then northerly along the left bank to Shoalwater Bay;
41. Thence, northwesterly along the shore of Shoalwater Bay, extending across the inlet to any channels, to a channel of the Blow river at approximate latitude 68°56’29” N and 137°03’27” W;
42. Thence southerly along the right bank of the channel to the intersection with latitude 68°56’14” N at approximate longitude 137°03’17” W;
43. Thence, westerly in a straight line across the channel to the opposite bank, then northerly along the left bank of the channel to Mackenzie Bay;
44. Thence, westerly along the shore of Mackenzie bay to a larger channel of the Blow River at approximate latitude 68°56’15” N and longitude 137°06’48” W;
45. Thence, southerly along the right bank of the channel to the intersection with latitude 68°55’29” N at approximate longitude 137°05’19” W;
46. Thence, west in a straight line across the channel to the opposite bank, then northerly along the left bank of the channel to Mackenzie Bay;
47. Thence, westerly along the shore of Trent Bay and northwesterly along the shore of Mackenzie Bay, extending across the inlet to any channels of Running River, to the inlet of an inland pond to the southwest at approximate latitude 68°58’20” N and longitude 137°22’18” W;
48. Thence southwesterly and northeasterly along the shore of the inland pond back to the point of entry;
49. Thence northwesterly along the shore of Mackenzie Bay to a long gravel spit to the east, known as Shingle Point, easterly and westerly along the shore of the gravel spit, and continuing northwesterly along the shore of Mackenzie Bay to the point of intersection with longitude 137°44’53” W at approximate latitude 69°03’07” N, said point known as Sabine Point;
50. Thence, northeasterly in a straight line to the point of commencement.

The following maps are intended as an aid to interpretation of the legal description. In case of disagreement between these maps and the text description, the text description shall be deemed correct. These maps are not intended for navigational use.


Tarium Niryutait Marine Protected Area Zones
Based on 1:2,000,000 data
Area of Interest: Mackenzie Delta Region
N
Marine Protected Area Zone
10 0 10 20 30 40 50
Kilometers
Lambert Conformal Conic Projection
Produced by Fisheries and Oceans Canada
Fisheries and Oceans Canada
Pêches et Océans Canada
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Okeevik
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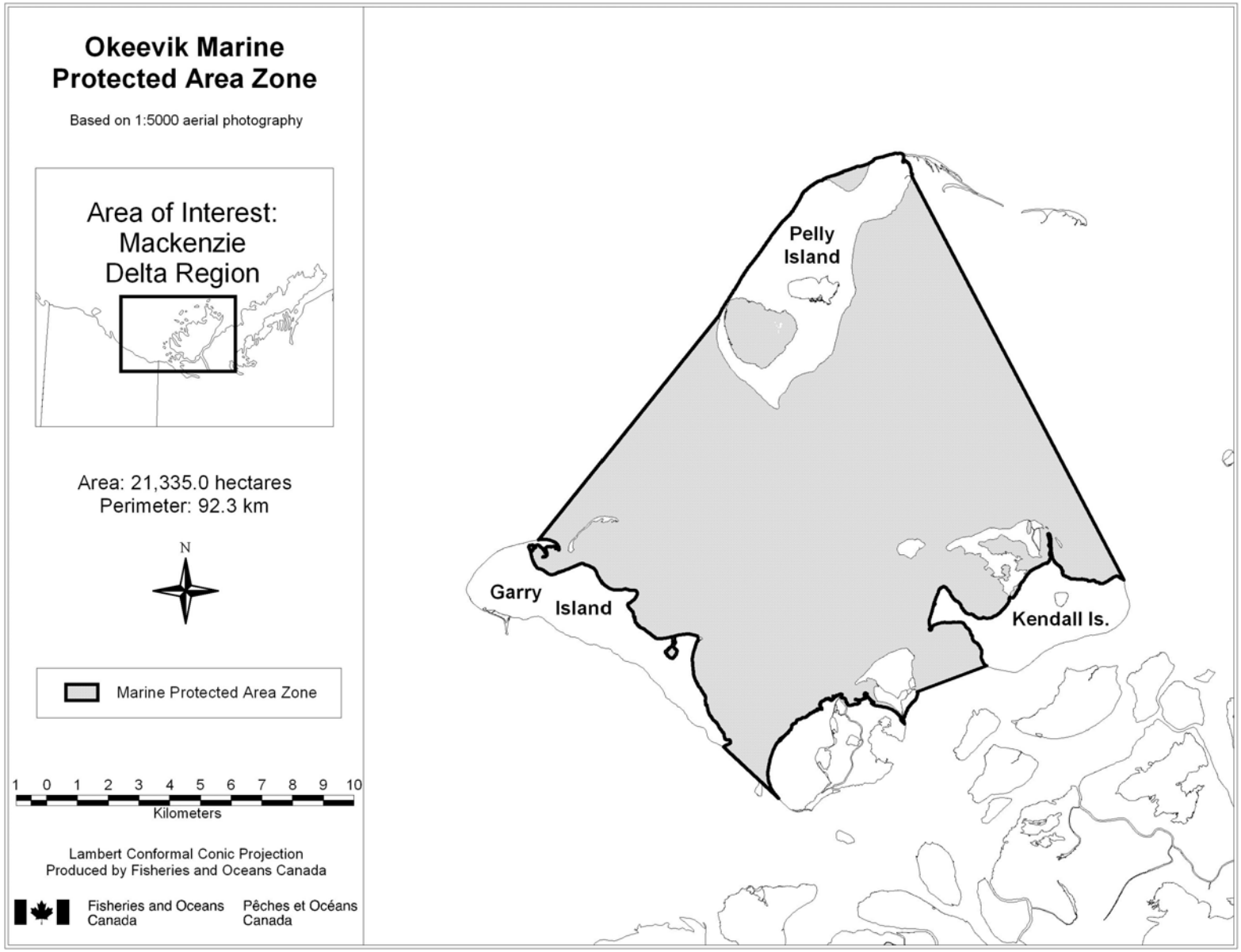
Okeevik Marine Protected Area Zone
Based on 1:5000 aerial photography
Area of Interest: Mackenzie Delta Region
Area: 21,335.0 hectares
Perimeter: 92.3 km
N
Marine Protected Area Zone
1 0 1 2 3 4 5 6 7 8 9 10
Kilometers
Lambert Conformal Conic Projection
Produced by Fisheries and Oceans Canada
Fisheries and Oceans Canada
Pêches et Océans Canada
Pelly Island
Garry Island
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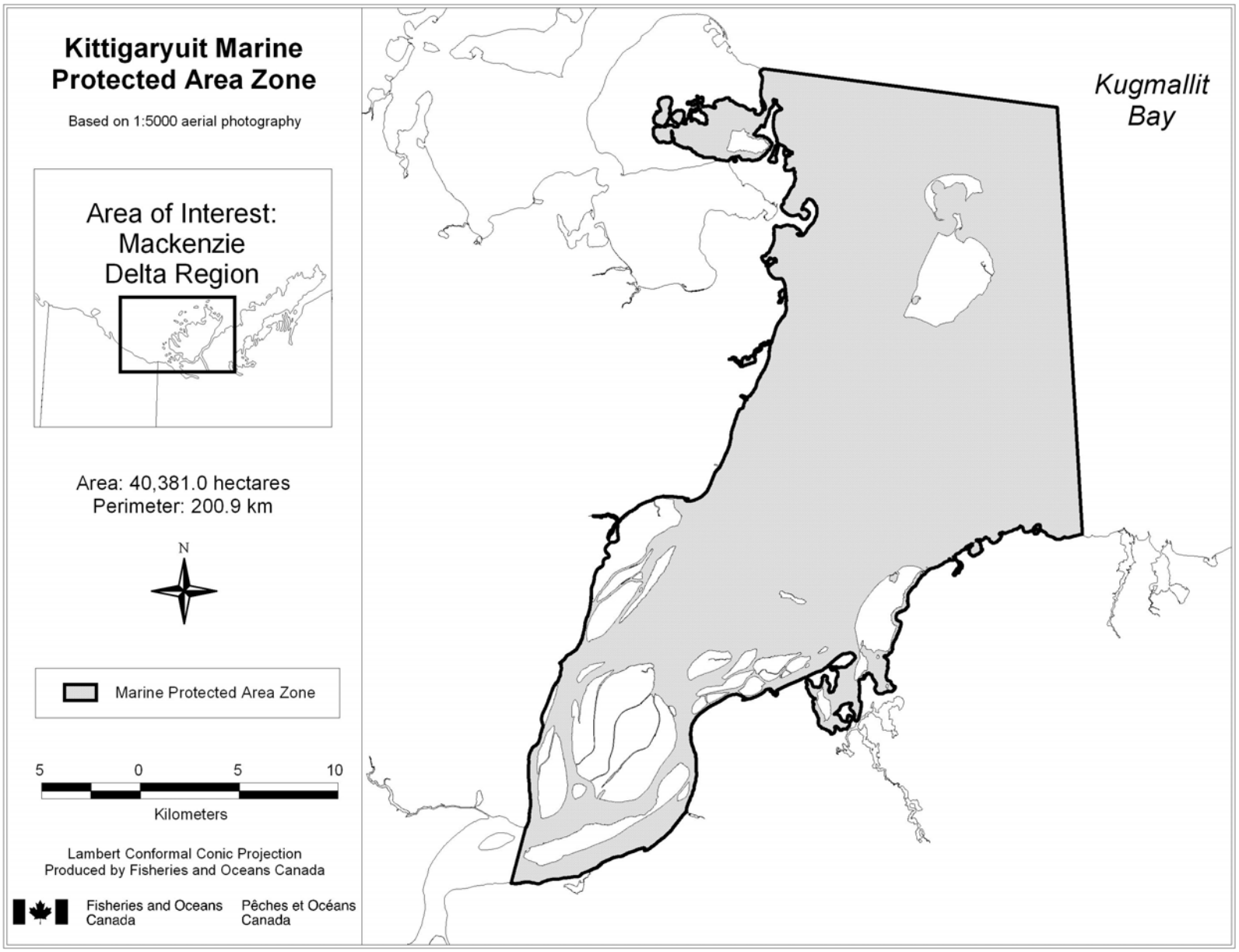
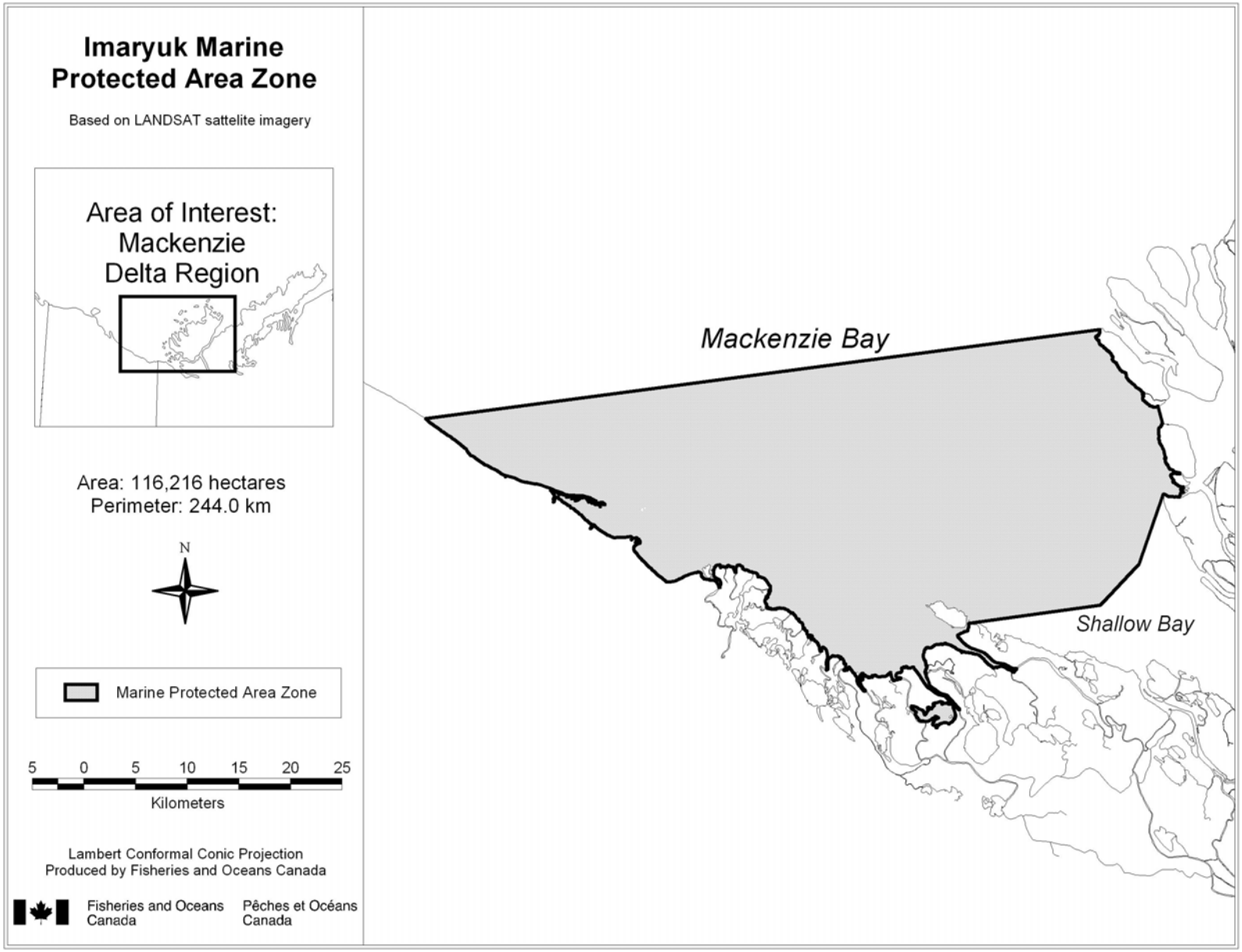

Kittigaryuit Marine Protected Area Zone
Based on 1:5000 aerial photography
Area of Interest: Mackenzie Delta Region
Area: 40,381.0 hectares
Perimeter: 200.9 km
N
Marine Protected Area Zone
5 0 5 10
Kilometers
Lambert Conformal Conic Projection
Produced by Fisheries and Oceans Canada
Fisheries and Oceans Canada
Pêches et Océans Canada
Kugmallit Bay


Imaryuk Marine Protected Area Zone
Based on LANDSAT sattelite imagery
Area of Interest: Mackenzie Delta Region
Area: 116,216 hectares
Perimeter: 244.0 km
N
Marine Protected Area Zone
5 0 5 10 15 20 25
Kilometers
Lambert Conformal Conic Projection
Produced by Fisheries and Oceans Canada
Fisheries and Oceans Canada
Pêches et Océans Canada
Mackenzie Bay
Shallow Bay

Beluga Whale Hunt at East Whitefish
Photo credit: FJMC

For further information

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