Fisheries and Oceans Canada
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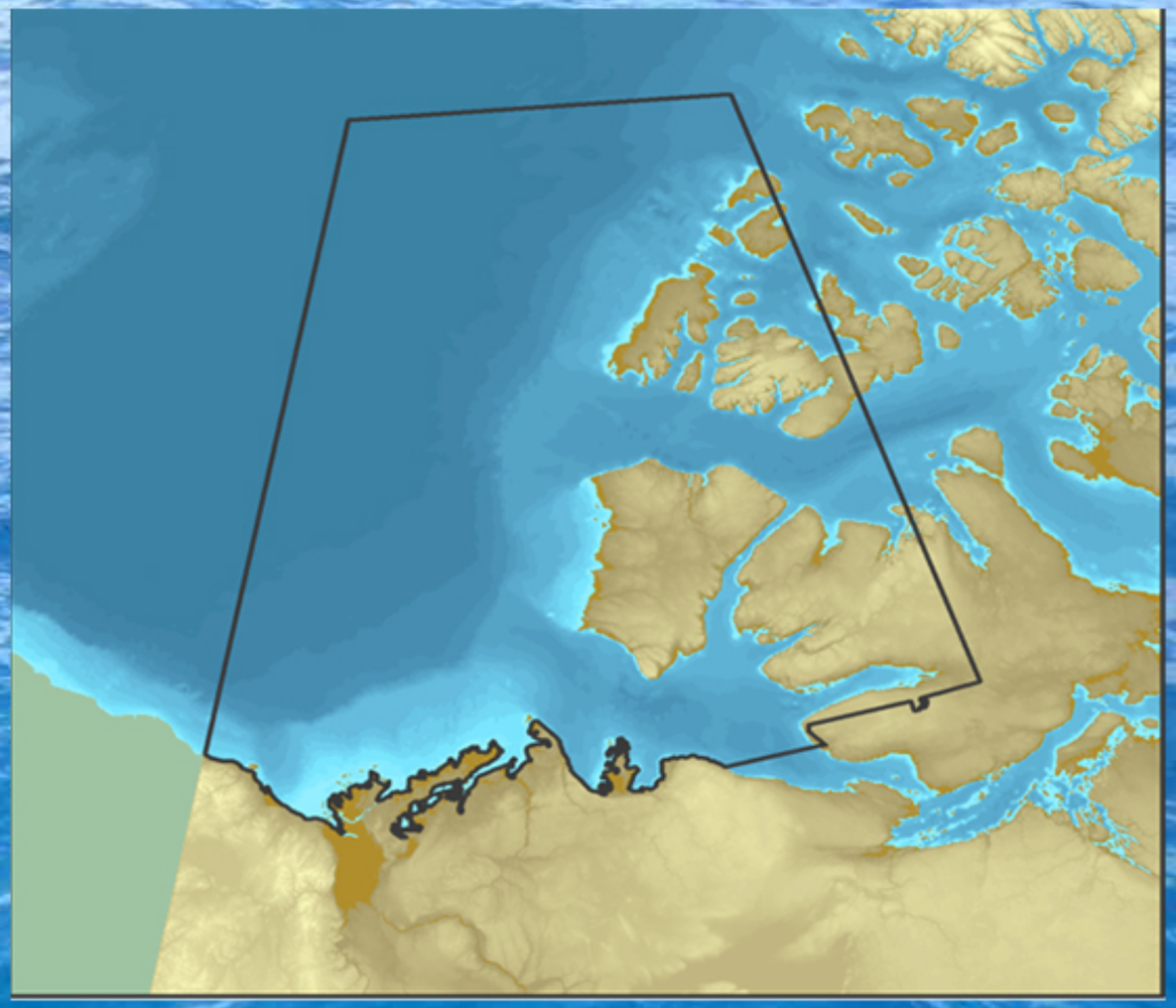
Canada

The Beaufort Sea
Integrated Oceans Management Planning Atlas



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Integrated Oceans Management Planning Atlas

This Atlas is intended to illustrate the diversity of activities occurring in the Beaufort Sea Large Ocean Management Area (LOMA) of relevance to Integrated Oceans Management. The objective of this atlas is to show the spatial interdependence of activities within the LOMA and the need for an integrated approach to link together stakeholder groups and the decisions they make. Activities are identified by the organization with the associated regulatory responsibility. Within an integrated management framework, regulatory organizations take the lead on these initiatives with appropriate input from other stakeholder bodies. Although many activities in this area may not be driven by a specific regulatory process, they may still support or affect regulatory decisions. This atlas includes some of the non-regulatory activities but focuses primarily on the regulatory decision making processes.

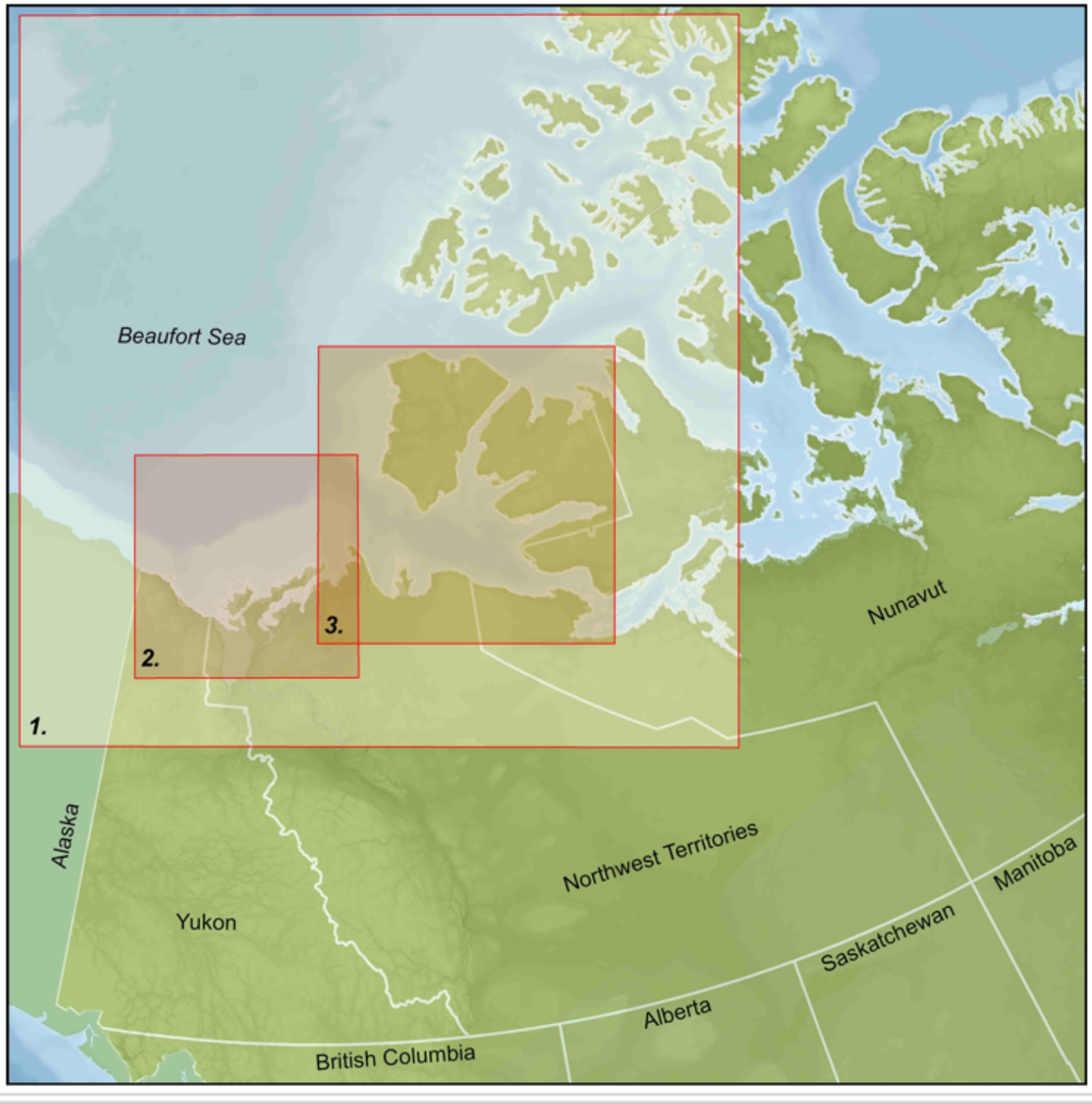
Within the Integrated Oceans Management Plan for the Beaufort Sea, Planning Elements are presented in categories such as Biophysical, Traditional Knowledge, and Social, Cultural and Economic. These elements provide overarching objectives for the planning process. However, atlas chapters do not focus on these elements because these broad objectives are difficult to relate directly to decision making processes. Planning elements may be thought of as the foundation for the arena in which decisions are made.

Supplementary information is supplied in the text box adjacent to each map. This information is organized as: Background; Regulatory Responsibilities; Importance; Map Description; Sources and Additional Information. The background section provides a history and current status of the activity and lead organization responsible. The legal or legislative authority which grants the authority for decision making processes is featured under Regulatory Responsibilities, while the following section describes the importance of this activity to the Beaufort Sea within the context of sustainable development. A specific description of the map, including interpretive descriptions of map elements is given, and lastly a section listing sources of relevant information for further reading on this topic is provided.

This atlas is not intended to be a source of information used for decision making or spatial analysis. Instead this visual representation of activities is used to illustrate spatial interdependence of activities and decision making processes, which in turn highlights the importance of Integrated Oceans Management in the Beaufort Sea. The demonstrated linkages will assist in increasing the communication and coordination between stakeholder groups and knowledge holders to increase the efficiency and effectiveness of decision making. It is our intention that through an evolving decision cycle process, effective decisions made through coordinated and integrated adaptive management will allow and promote sustainable development in the Beaufort Sea.

Sources and Additional Information

Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada - available at:
http://www.dfo-mpo.gc.ca/oceans-habitat/oceans/ri-rs/cosframework-cadresoc/index_e.asp/
Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada - available at:
http://www.dfo-mpo.gc.ca/oceans-habitat/oceans/ri-rs/cosframework-cadresoc/index_e.asp Integrated Oceans Management for Sustainable Development
http://www.dfo-mpo.gc.ca/oceans-habitat/oceans/oap-pao/page03_e.asp/



Map Scales and Extents

Three standardized map scales and extents are used throughout this atlas.

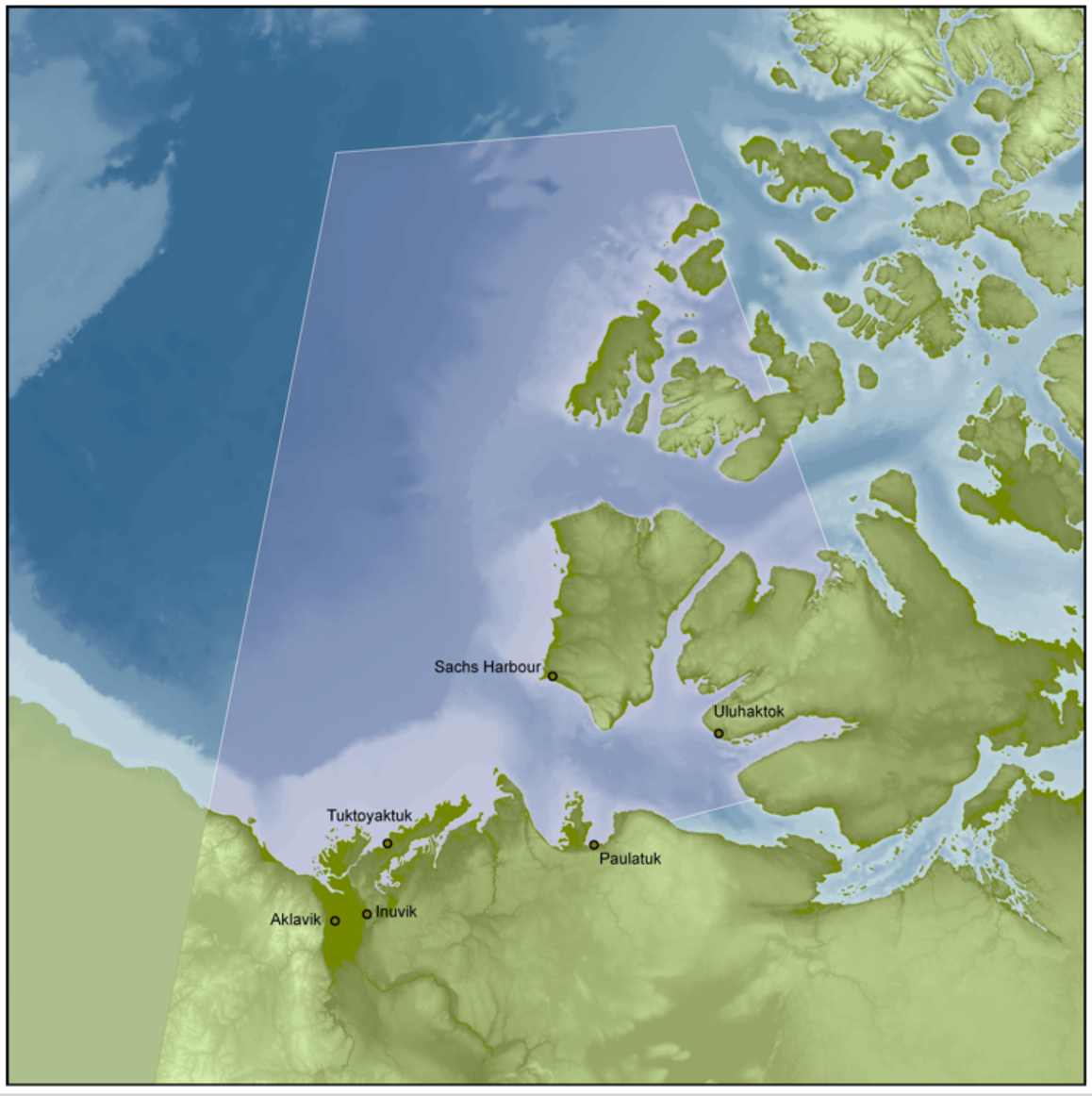
1. LOMA Scale – This map scale is 1: 10,000,000 (e.g. one metre equals 10 million metres or 10 thousand kilometres), and is centred on 125° west 74° north.

2 . Delta Scale – This map scale is 1: 3,000,000 and is centred on 134° 30' west 70° north.

3. Amundsen Gulf Scale – This map scale is 1: 4,000,000 and is centred on 120' west 71' 20' north.

All maps used in the atlas are projected in Polar Stereographic North Pole, with a central meridian at 130' west.

North is always toward the top of the page, but due to the small scale of the maps the exact angle toward the north changes with the east-west position across the map. For this reason, no north arrows are show.



Department of Fisheries and Oceans
Large Ocean Management Area (LOMA)

Background - Large Ocean Management Areas (LOMAs) extend from the coastline to the limits of Canadian jurisdiction under international law. The Beaufort Sea LOMA overlaps with the Inuvialuit Settlement Region which encompasses the 6 Inuvialuit communities: Tuktoyuktok, Aklavik. Inuvik, Paulatuk, Sachs Harbour, and Uluhaktok. The LOMA will address large-scale ecosystem and economic development issues through the development and implementation of integrated ocean management plans by incorporating ecosystem, socio-economic, cultural and institutional management objectives and indicators. LOMAs may also include Coastal Management Areas (CMAs) to enable the development of integrated management plans for estuarine and coastal areas. The Beaufort Sea is one of the five designated Large Ocean Management Areas in Canada.

Regulatory Responsibilities - In 1997, Canada passed the Oceans Act, requiring DFO to lead the development of Integrated Oceans Management for Canada's oceans. Canada's Oceans Action Plan (2005) identified the Beaufort Sea Large Ocean Management Area (LOMA) as one of five priority areas for Integrated Oceans Management. The Inuvialuit Final Agreement (IFA) and the Oceans Act are the foundation for planning within the Beaufort Sea Large Ocean Management Area.

Importance - The high biological productivity, including ice edge dependent species like beluga whales, polar bears and seals was the basis for the selection of the Canadian Beaufort Sea LOMA. This area is impacted by the increasing levels of multiple use and competition for ocean space and resources. Activities with in the LOMA are undertaken by numerous parties including subsistence fisheries, offshore oil and gas, shipping, maritime defence operations, submarine cables, science, research and development, recreation and tourism, potential offshore minerals development, and marine conservation. The goal for the Beaufort Sea integrated management planning process is to have an effective, collaborative process that provides integrated and adaptive management plans, strategies and actions for ecosystem, social, economic, and institutional sustainability. Ocean management plans and decisions are based on shared information where those with the decision-making authority and those affected by the decision jointly seek outcomes that meet the needs and interests of all parties to the greatest possible degree.

Map Description - The pink shaded area in the attached map represents the LOMA. The 6 Inuvialuit communities are also shown on this map.

Sources and Additional Information

Beaufort Sea Partnership. Integrated Management in the Beaufort Sea A Brief Overview - available at:
http://www.beaufortseapartnership.ca/
DFO. Prepared by North/South Consultants Inc. Marine Ecosystem Overview of the Beaufort Sea, Large Ocean Management Area (LOMA). 2005 - available at:
http://www.dfo-mpo.gc.ca/Library/320674.pdf

Department of Fisheries and Oceans
Ecologically and Biologically Significant Areas

Background - As Part of its mandate, DFO is attempting to do so through integrated management approaches. Consistent standards are needed to guide selection of areas where protection should be enhanced, while allowing sustainable activities to be pursued where appropriate. The identification of ecological and biologically significant areas (EBSA's) results is a tool which directs attention to areas of significant ecological or biological importance.

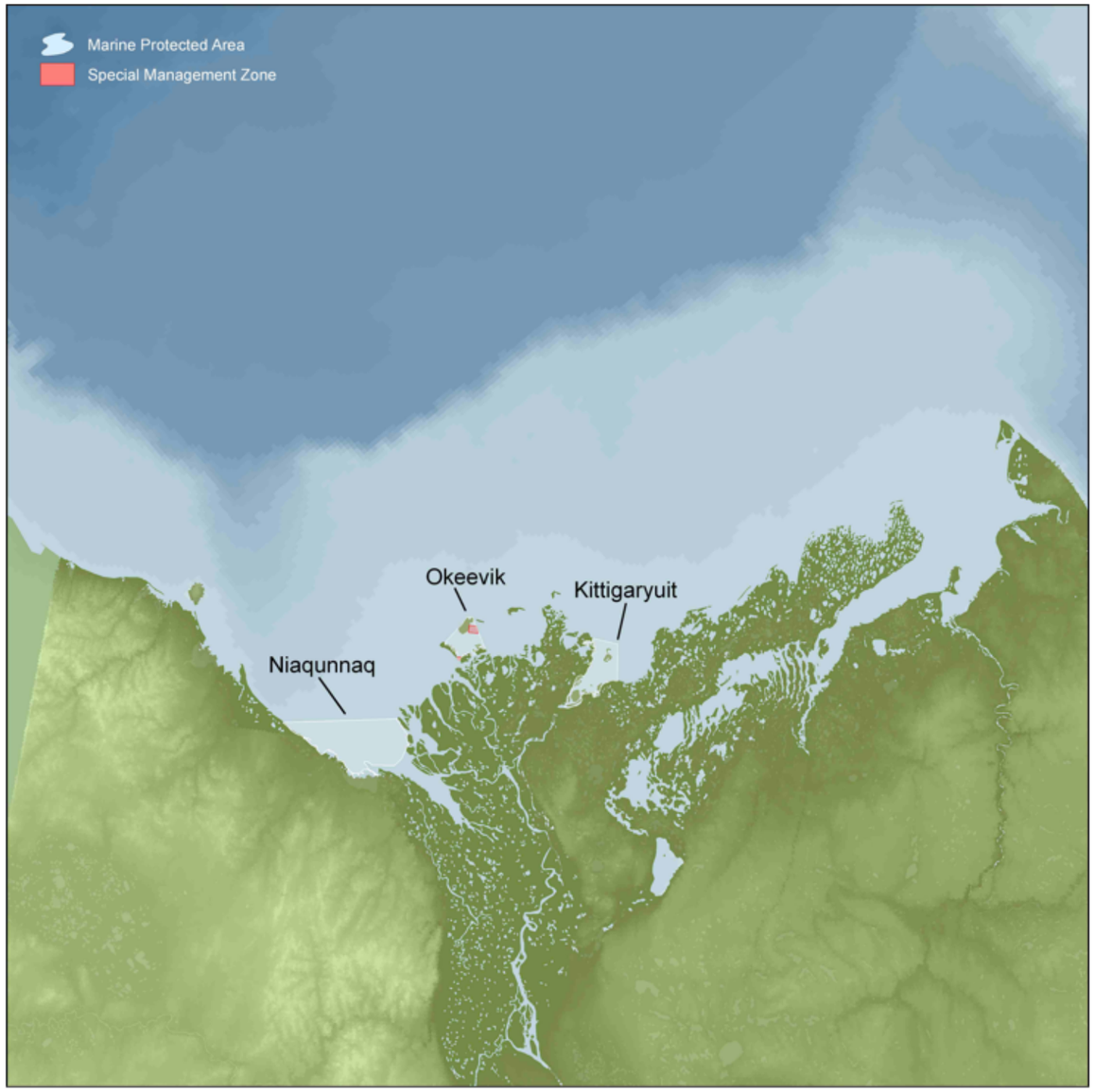
Regulatory Responsibilities - The Department of Fisheries and Oceans is authorized to provide protection to areas of Canada's oceans and coasts which are ecologically or biologically significant. In addition to the Oceans Act the concept of the EBSAs also falls under the Species at Risk Act (SARA). SARA emphasizes the importance of EBSA's as habitat for all species.

Importance - - Ocean areas can be ecologically "significant" because of their biophysical structure and ecological function. For the purposes of the creation of the EBSA;s the term significance refers to the relative role of a species, habitat feature, community attribute, area, etc. in the ecosystem. While all area's have some ecological function, the significance of these areas is viewed in terms of ecological consequences due to sever perturbations. Three main aspects of Ecological and Biological significance were evaluated and include – Uniqueness, Aggregation and Fitness Consequences.

Map Description - The shaded areas in this map represent the EBSA's created by the Department of Fisheries and Oceans Canada.

Sources and Additional Information

DFO, 2004. Identification of Ecologically and Biologically Significant Areas. DFO Can. Sci. Advis. Sec. Ecosystem Status Rep. 2004/006 - available at:
http://www.dfo-mpo.gc.ca/csas/Csas/status/2004/ESR2004_006_E.pdf
Department of Fisheries and Oceans. 2006. Terms of Reference, National Workshop. Development of criteria to identify Ecologically and Biologically Significant Species - available at:
htttp://www.dfo-mpo.gc.ca/csas/Csas/ScheduleHorraire/Details/2006/09_Sept/EBSS_ToRs_E.pdf



Fisheries and Oceans Canada
Tarium Niryutait Marine Protected Area

Background - The purpose of the proposed Tarium Niryutait MPA is to conserve and protect the biological resources that are found in the areas of interest, and to preserve the viability of a healthy population of beluga whales. Three areas - Niaqunnaq, Okeevik, and Kittigaryuit - have been selected for inclusion in the Tarium Niryutait Marine Protected Area (MPA). Key principles of the Tarium Niryutait MPA are:

- To ensure the conservation objectives of the proposed MPA are consistent with the objectives of the Inuvialuit Final Agreement (IFA) and the Beaufort Sea Beluga Management Plan.
- That the proposed MPA represents the balance between protecting values fundamental to Inuvialuit culture and recognizing that the health of communities is tied to local economies.

Regulatory Responsibilities - By establishing Canada's first Arctic MPA, Fisheries and Oceans Canada, in collaboration with its partners, will be well underway to fulfilling commitments under Canada's Oceans Act, Canada's Ocean Strategy, Canada's Oceans Action Plan and international plans such as the Arctic Marine Strategic Plan. The successful delivery of this MPA is an example of one of the many Integrated Management Initiatives taking place in the Canadian Beaufort Sea.

Importance - During the summer months, a portion of the Beaufort Sea beluga whale stock travels to the Mackenzie Estuary. Whales may come to this area for many reasons which may include, socializing, rearing calves, moulting, feeding and for energetics (i.e. thermal advantage). These areas have been traditionally utilized by the Inuvialuit and are important from a cultural, subsistence and economic perspective.

Sources and Additional Information

François Côté, and Jessica Finney (2006). MARINE PROTECTED AREAS: AN ESSENTIAL ELEMENT OF THE FISHERIES MANAGEMENT TOOLBOX. Library of Parliament Publication (PRB 06-16E). - available at:
http://www.parl.gc.ca/information/library/PRBpubs/prb0616-e.htm
Framework to Establish and Manage MPAs - available at:
http://www.dfo-mpo.gc.ca/oceans-habitat/oceans/ri-rs/mpaframework-cadrezpm/page05_e.asp
MPA Policy Document (1999). Fisheries and Oceans Canada document 5870, PWGSC Cat. No. Fs23-365/1999, ISBN 0-662-64210-4.- available at:
www.dfo-mpo.gc.ca/oceans-habitat/oceans/ri-rs/mpapolicy-politiquezpm/pdf/policy_e.pdf
Approach to DFO's Marine Protected Areas Program - available at:
http://www.dfo-mpo.gc.ca/oceans-habitat/oceans/ri-rs/mpaframework-cadrezpm/page04_e.asp?template=print
S.M.J. Evans, G. Jamieson, J. Ardron, M. Patterson, S. Jessen (2004). Evaluation of Site Selection Methodologies for use in Marine Protected Area Network Design. Fisheries and Oceans Canada, Canadian Science Advisory Secretariat Research Document 2004/82. ISSN 1499-3848. - available at:
http://www.dfo-mpo.gc.ca/csas/Csas/DocREC/2004/RES2004_082_e.pdf