

APPENDIX 1: TERMS OF REFERENCE

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Draft Terms of Reference

The proposed Beaufort Sea Beluga Marine Protected Area:

An assessment of the probable distribution of mineral and hydrocarbon resources, their economic and strategic value
(September 2002)

Background

The Government of Canada, Inuvialuit organizations pursuant to the Inuvialuit Final Agreement, and industry as represented by CAPP, have formed a Working Group and Senior Management Committee for the Beaufort Sea Integrated Management Planning Initiative (BSIMPI). One priority of the BSIMPI is evaluating three areas classified as Zone 1(a) under the Beaufort Sea Beluga Management Plan (BSBMP) for potential Marine Protected Area (MPA) status under the authority of S. 35(1) *Oceans Act*.

The traditional ecological knowledge of the Inuvialuit identifies these areas as very important habitat for beluga. Scientists know these areas to be important areas for ecological productivity and biomass. They further conclude that these areas are of considerable importance to beluga because they return to them each summer. The Beaufort Sea Beluga Management Plan (BSBMP) established protective guidelines for the Zone 1(a) areas in 1994. Parties to this plan include the Fisheries Joint Management Committee (FJMC), the six community Hunters and Trappers Committees (HTCs) and Fisheries and Oceans Canada (DFO). BSBMP guidelines exclude oil and gas exploration, production or related construction, and mining activities in the Zone 1(a) areas. They also address shipping routes and the development of commercial fishing proposals.

Over time, the intent of the BSBMP has been respected. At the request of the Inuvialuit, the federal government (INAC) has voluntarily not offered these areas for lease. Also the Environmental Impact Screening Committee has, to date, recommended against activities, for which they have a responsibility for screening, going ahead in these area. However, there has been sustained pressure on the Inuvialuit by the petroleum industry to open these areas to allow some level of activity. Consequently, consideration of the magnitude of potential hydrocarbon development scenarios in the Beaufort Sea, have led members of the FJMC and Inuvialuit beneficiaries to express a wish to examine the potential of having the BSBMP guidelines for three Zone 1(a) areas formalized through the establishment of an MPA.

Rationale

The *National Framework for Establishing and Managing Marine Protected Areas* (1999) requires that socio-economic assessments be conducted as part of the MPA evaluation process. These assessments include an evaluation of mineral, aggregate and hydrocarbon resource potential. The *Government of Canada Regulatory Policy* requires that the costs and benefits of any proposed regulation be evaluated prior to submission to Governor in Council. Additional government policies specify that non-renewable resources be

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considered when making land use decisions. These include the *Minerals and Metals Policy of the Government of Canada*, the *Federal Land Use Policy* and the *Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals*

Purpose

These Terms of Reference formally recognize participants, their expertise and describe the process whereby mineral and hydrocarbon resource potential in Zone 1(a) areas will be evaluated. The completed assessment will serve two primary functions. First, the assessment will ensure that, in making recommendations to designate Zone 1(a) areas as a MPA, the Minister of Fisheries and Oceans is apprised of the economic and strategic value of mineral and hydrocarbon accumulations in the area. Second, it will support the analysis of the cost and benefits of the proposed regulation, should the decision be made to proceed to establish a regulation for the MPA.

The resource assessment should evaluate the following options:

1. Status quo -- The three Zone 1a areas identified in the Beaufort Sea Beluga Management Plan (BSBMP) remain closed to all oil and gas development.
2. MPA regulation -- development of a regulation based on conservation objectives, including prohibition of activities that are not consistent with meeting the conservation objectives.

The proposed analysis and documentation will provide a common set of facts regarding hydrocarbon potential and the economic value, on which the Governor in Council would be able to make a decision regarding a regulation.

Geographic Scope

For the purposes of this assessment, the core study area has been defined to encompass the proposed MPA Area of Interest which includes three areas designated in the Beaufort Sea Beluga Management Plan as Zone 1(a) areas. These areas are as follows: Mackenzie Bay at 1,160 km²; the Kendall Island area at 193 km²; and Kugmallit Bay at 363 km². The total area of the three is 1,716 km². They are identical with the areas zoned as 1(a) in the BSBMP. (See Attached Map.) In order to understand the relative value of the resources within the core study area, a broad understanding of resource values in the Beaufort Sea/Mackenzie River delta will be required.

For those portions of the assessment that require geological comparisons with other accumulations in the region, the Beaufort Sea/Mackenzie River delta will be the area of comparison. For economic and operational comparisons, particularly for minerals and aggregates, it may be necessary to review the experience from other jurisdictions.

Participants and Roles:

It is anticipated that the overall non-renewable resource assessment will be undertaken in two stages. Initially, the extent, distribution and overall value of resources within the

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study area will be determined. Once the proposed regulation for the MPA has been clearly defined, it will then be possible to make a determination with respect to any potential costs as well as benefits of the regulation with respect to exploiting the resources within the study area.

- Natural Resources Canada, NRCan – will provide the leadership to assemble the available information to determine the extent of deposits of minerals, aggregates and oil and gas resources within the Zone 1a areas and the Southern Beaufort Sea. NRCan will also provide the expertise to undertake economic analysis of the potential costs of any proposed regulation
- Indian and Northern Affairs Canada, INAC – may be called upon to provide specific information and expertise to NRCan.
- National Energy Board, NEB – may be called upon to provide specific information and expertise to NRCan, particularly, modelling expertise to extrapolate resources estimates for non-conventional hydrocarbons
- Fisheries and Oceans Canada, DFO – will work within the Beaufort Sea Integrated management Planning Initiative Working Group to identify the possible regulatory requirements for a proposed MPA, which will, in turn, inform the economic analysis of the effects of the regulation.
- Inuvialuit Organizations (Inuvialuit Regional Corporation (IRC), Inuvialuit Game Council (IGC), Fisheries Joint Management Committee (FJMC)) – will work within the Beaufort Sea Integrated Management Planning Initiative Working Group to identify the possible regulatory requirements for a proposed MPA, which will, in turn, inform the economic analysis of the effects of the regulation. The IRC will also review the draft assessment along with other members of the BSIMPI Management Committee.

Statement of Work

1. Conduct an inventory of existing public and private data of the total resources within the three Zone 1(a) areas. This inventory will include: conventional petroleum, oil and gas; unconventional petroleum resources such as natural gas hydrates; and earth minerals / industrial minerals for construction materials.
2. Complete a description of geological conditions.
3. Provide a rating of the three proposed MPA areas and the resource potential as a proportion of the entire Beaufort Sea/Mackenzie River Delta in order to understand the relative (known and potential) quantity and economic value of the resources in the Zone 1a areas as compared to the rest of the Beaufort/Delta. This would also include the relative exploitability of the various identified resources.

Deliverables

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A technical report for public distribution based on published documents and grey literature will include:

- a summary, analysis and interpretation of existing public and private data concerning the likely distribution of the known and predicted accumulations of commercial resources within the region and those resources specifically attributable to the three Zone 1(a) areas using the adjusted NEB resource model; and
- an assessment of what portion of the geological resource is economic and operationally feasible. This will include an examination of operating flexibility (e.g. directional drilling, low impact winter seismic etc.).

This report will include an Executive Summary, a Plain Language Summary, and a digital scaled summary map (GIS) documenting the probable distribution of discovered and undiscovered petroleum potential for both conventional and gas hydrate petroleum resources throughout the region such that the resources attributable to the in the three Zone 1 (a) areas is described.

PART II: ADDITIONAL DOCUMENTS – by February 28, 2002

Assessment of the economic value of the potential resources to the region.
Assessment of the strategic value of the resource (in the local, regional, national and continental context).

These two documents will be concise (not more than five pages each).

Timelines

PART I is to be completed by January 30, 2003.

PART II is to be completed by February, 28 2003.

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