## PARTICIPANT FUNDING APPLICATION FORM

NIRB Use Only
Date Received:
File Number:
Participant Funding: Application for Funding
Step 1: Applicant Information Name and location of project: AREVA Resources Canada Inc's "Kiggavik" project (NIRB File No. 09MN003) Kivalliq Region, Nunavut
Steps of the Review we intend to participate in:  i) Phase 1-Scoping and Guideline Development  ii) Phase 2-Draft EIS Review and Technical Meeting; Pre-hearing Conference  iii) Phase 3-Final EIS Review and Final Hearing
Name of applicant: Beverly and Qamanirjuaq Caribou Management Board (BQCMB) Web site address: www.arctic-caribou.com Mailing address: Box 629
City / Town: Stonewall Province: Manitoba Postal Code: R0C 2Z0 Telephone number: 204-467-2438 Fax number: 204-467-7999 E-mail address: rossthompson@mts.net; caribounews@arctic-caribou.com
Name of unincorporated entity: Beverly and Qamanirjuaq Caribou Management Board (BQCMB)  Name and title of contact person for corporation/ organization/ group/ association:  Ross Thompson, BQCMB Secretary-Treasurer  Language of correspondence  English_x  French
Is your organization incorporated? Yes No_X_  Business number (Canada Customs and Revenue Agency): GST/HST rebate number: 86620 7574 RR0001 GST/HST rebate %: 50 The BQCMB is a Not-for-Profit Registered Charity # 890787443 RR0001
Have you applied or will be applying for funds from other sources to participate in the review process? No X Yes

#### BQCMB's major goals and mandate:

Mission: To safeguard the caribou of the Beverly and Qamanirjuaq herds for traditional users who wish to maintain a lifestyle that includes the use of caribou, as well as for all Canadians and people of other nations.

Major Goals: From Beverly and Qamanirjuaq Barren Ground Caribou Management Agreement (2002)

- To develop and make recommendations to the appropriate governments and to the groups of traditional users for the conservation and management of the Beverly and Qamanirjuaq herds....and their habitat...
- To establish communication to ensure coordinated caribou conservation and caribou habitat protection
- To coordinate management of the Beverly and Qamanirjuaq Herds
- To establish a process of shared responsibility for development of management programs

#### **BOCMB** interest in the Review:

Involvement in this Review addresses a key part of the BQCMB's mandate to safeguard the caribou herds. The BQCMB was formed in 1982 because of a caribou crisis - perceived serious declines in the herds. It is apparent that the Beverly herd has experienced a serious decline, while surveys of the Qamanirjuaq herd have shown a decrease in herd size of approximately 30% between 1994 and 2008. Therefore it is crucial that the potential impacts of this proposed project on caribou and people who depend on caribou are examined in detail during this Review.

The BQCMB examines and takes very seriously all development proposals on the ranges of the Beverly and Qamanirjuaq caribou herds, which are worth at least \$20 million annually to communities that depend on them for sustenance and livelihood. These herds could be severely impacted by activities and operations associated with the AREVA-Kiggavik Project. All potential impacts must be identified and measures put in place to minimize the cumulative effects of this and other similar projects on the caribou herds and their habitats. The BQCMB intends to ensure that agencies and organizations responsible for regulating and approving land use activities on the caribou ranges recognize the value of the herds, their critical habitats, sensitivities to disturbance and the importance of stringent conditions to protect caribou and important habitats.

#### **Step 2: Description of Proposed Activities**

Proposed contribution by the BQCMB to the Review:

- a) Objectives:
  - Provide scientific, traditional knowledge and community-based information on ecosystemic and socio-economic effects of the AREVA-Kiggavik project;
  - Assert the importance of barren ground caribou in the review process;
  - Identify and put on record: socio-economic value of caribou; important habitats for caribou; threats to caribou from various development activities; current concerns about population levels and habitat uses of Beverly and Qamanirjuaq caribou;

- Put forward remedial and mitigation measures to minimize any potential deleterious impacts of the Project on caribou;
- Explore further partnerships with governments, industry and other organizations for caribou conservation
- b) Proposed activities for which funding is being requested:
  - Participating in all three phases of the Review, including: review and comment on scoping
    and draft and revised EIS Guidelines; preparation and participation in EIS guidelines
    workshop, technical meeting and pre-hearing conference; submission of information
    requests and technical review report; review of final EIS; and preparation of presentation for
    public hearing and participation in that hearing.
  - 2. Providing information relevant to assessment of Project effects on caribou based on the BQCMB's role and inputs into previous land use applications, impact review, development proposals, regulation and policy reviews, cumulative effects assessments and best practices; this includes past involvement concerning uranium developments in northern Saskatchewan and proposed developments in Nunavut and the Northwest Territories.
  - 3. Meeting with the Baker Lake and Arviat HTOs to discuss caribou issues related to the Project and working closely with Kivalliq BQCMB members (who are from Baker Lake and Arviat) to include their community's perspectives in BQCMB submissions to the NIRB. Meetings will focus primarily on the BQCMB supplying caribou-related information and requesting input from HTO members. This will be supplemented by obtaining and coordinating input from other BQCMB members at BQCMB meetings in Spring and Fall 2010, and also Spring 2011 (if required).
  - 4. Producing feature and other articles on the Project and the Review in the BQCMB's plain language newsletter for Board members and communities, *Caribou News in Brief*, which will also be widely available through the BQCMB's website. This will help the BQCMB and the NIRB to communicate about caribou-related concerns associated with the Project for communities across the Kivalliq as well as other regions.
- c) Contributions to the review's understanding of the anticipated effects of the project: The BQCMB, since its inception in 1982, brings a blend of scientific, traditional and community knowledge about caribou and potential impacts of projects of this nature. Also the BQCMB has developed experience and credibility in eliciting information from all backgrounds and organizations government, community and non-government organizations. Further, several Board documents have good application to this Process, including the Board's report (1999) and map atlas (2000) documenting and mapping important seasonal caribou ranges based on government surveys "Protecting Beverly and Qamanirjuaq Caribou and Caribou Range", and the BQCMB Position Paper "Protecting Calving Grounds, Post-Calving Areas and Other Important Habitats for Beverly and Qamanirjuaq Caribou" (2004). The BQCMB's "Valuation and Socio-Cultural Perspectives of the Estimated Harvest of the Beverly and Qamanirjuaq Caribou Herds" (2008) hopefully will assert the importance of effective protection from development activities.

#### The BQCMB's capacity to carry out the proposed activities.

The BQCMB is a caribou co-management board that operates through collaboration between traditional caribou-using communities and governments, with a total of 13 members. The Board is comprised of community representatives from northern Manitoba, Saskatchewan, Northwest

Territories and Nunavut, all of them with caribou knowledge and experience. Additionally, five governments are represented (MB, SK, NWT, NU and Canada). The Board is supported by a Secretary-Treasurer (former Chairperson of the BQCMB) and by a contract Biologist and a contract Communications Specialist. This "bench strength" of the BQCMB is bolstered by a network of cooperators, regionally, provincially, nationally and internationally, many of whom can be called upon to assist the Board in various aspects of its important work.

#### Relevant experience, expertise and skills

**Board members:** Community representatives(from Tadoule Lake MB, Lac Brochet MB, Wollaston Lake SK, Uranium City SK, Lutsel K'e NT, Ft. Smith NT, Arviat NU and Baker Lake NU), who are each recommended by regional organizations and appointed by governments, all have substantial caribou knowledge and experience as hunters/trappers. Government representatives are primarily biologists and wildlife managers with extensive experience in caribou ecology, population surveys and monitoring, land use planning, environmental impact processes and public hearings. **Secretary-treasurer:** A former senior biologist from Manitoba, and past Chair of the BQCMB, he also is a professional facilitator and strategic planner, having facilitated over 100 community-based "Roundtable" plans in Manitoba and Nunavut.

**Contract Biologist:** A biologist with more than 25 years experience working on wildlife and land use issues, she has worked for almost 14 years with the BQCMB on a variety of projects, including mapping caribou habitats, community-based caribou monitoring, land use planning, caribou protection, development reviews, impact assessments, review of permit applications, Caribou Protection Measures review, and cumulative effects.

**Contract Communications Specialist:** A writer/editor with a long history and strong rapport with the BQCMB and caribou range communities, she has produced "Caribou News" and many other "plain language" documents for the BQCMB for the last 25 years, and also develops and maintains the Board's Website.

BQCMB members, staff and contractors have participated in providing comprehensive comments to Nunavut and NWT regulatory agencies (NIRB, MVLWB, MVEIRB) on land use applications for mineral exploration and development activities that affect sensitive areas of the ranges, such as calving, post-calving area and migration routes. Board members have developed working relationships with regulatory agencies, World Wildlife Fund Canada, mining companies, the CircumArctic Rangifer Monitoring and Assessment (CARMA) Network, and others, all of whom have been welcome at BQCMB semi-annual meetings and have made presentations to the meetings. Of note, the BQCMB has recently been an active participant in scoping, guideline development and assessment for Uravan's application for uranium exploration on the Beverly calving ground south of Garry Lake NU, as well as for uranium exploration proposals by UR-Energy, Uravan, and Bayswater on NWT Beverly caribou migration range.

How BQCMB participation will bring an important and distinct perspective to the Review. The BQCMB will bring:

- Blend of scientific, community and traditional knowledge
- Support and credibility based on over 25 years of operation
- Collaboration with territorial and provincial governments responsible for caribou management, and with the federal government

- Collaboration with communities from the Kivalliq and other regions
- Appreciation from communities and HTOs for garnering and putting forth issues, concerns and potential solutions
- Facilitated and strategic approach
- Extensive experience with all components of impact assessment and hearings
- Efficiency: organization and infrastructure already in place
- Additional opportunities for review and comment by BQCMB members at BQCMB meetings in Spring 2010, Fall 2010 and Spring 2011
- Documented input to INAC Caribou Protection Measures Review; NPC Land Use Planning; INAC Upper Thelon Land and Resource Management Plan; land use and caribou habitat mapping
- Information and experience based on numerous discussions among board members about potential conflicts between caribou and people, including those related to mineral exploration and development
- Data on economic value of the Beverly and Qamanirjuaq Herds
- Information on caribou seasonal movements and habitat uses, based on satellite collar data for which the Board has made significant contributions, as well as extensive mapped and documented information on seasonal caribou habitats based on government surveys
- Caribou population modelling simulation experience
- Communication tools: Caribou News in Brief, BQCMB Website

# Have you or your organization made an effort to cooperate with other individuals or organizations in preparing a funding application?

No \_\_\_\_ Yes \_\_X\_\_

- 1. Dr. Anne Gunn, retired NWT government Caribou Biologist, currently independent consultant: Information exchange; potential technical assistance
- 2. Dr. Patricia Thomas, Toxicology Centre, University of Saskatchewan: Information exchange; potential technical assistance
- 3. Canadian Arctic Resources Committee: Information exchange

#### How are the proposed activities incremental to your ongoing business?

Proposed activities are <u>additive</u> to the BQCMB's regular responsibilities. Given the importance and location of the AREVA-Kiggavik proposal the Board has prioritized its involvement in the process, with other duties and responsibilities to be re-assigned or deferred. There will, however, be efficiencies realized through the Board's organizational framework, including regular meetings and experience from virtually all Board members and staff in previous reviews.

#### **Step 3: Funding Requested**

#### **Priority Expense Category Funding Requested:**

Local collection / distribution of information:	\$ 5,000.00
Professional fees	\$62,475.00
Travel expenses	\$24,100.00
Office supplies	\$ 500.00
Rental of office space / meeting rooms	\$ 3,000.00

## **TOTAL** funding requested:

#### Additional information to support request (with costs as rough estimates)

Local collection / distribution of information:

- Support costs for 2 community meetings; honoraria; presentation materials (including maps), graphics, translation \$5,000.00

#### Professional fees:

a) Professional services mainly from contract Biologist and 1-3 other contracted experts for technical input and development of submissions and presentations, BQCMB Secretary-treasurer for project coordination and management, and BQCMB Chairman for hearing presentation:

**Task** Time (Days) o Phase 1: In-depth project proposal review, obtaining relevant caribou data, scoping review, input on EIS guidelines, participation in EIS guidelines development workshop (BQCMB Biologist) 21.0 o Phase 2: Meetings with Baker Lake and Arviat HTOs (BQCMB Biologist), review of draft EIS, development of info requests, technical review and report development, participation in technical meeting and preliminary hearing conference (BQCMB Biologist) 31.0 o Phase 3: Review final EIS, development of BQCMB hearing presentation, participation in hearing (BQCMB Biologist and Chairman) 18.0 70.0 70 days @ \$800/day: 56,000.00 GST(5%): 2,800.00 \$58,800.00 b) Communications - Writing & editing newsletter articles \$3,500.00 GST (5%) 175.00 \$3,675.00

#### TOTAL PROFESSIONAL FEES:

TOTAL TRAVEL EXPENSES:

\$62,475.00

Travel expenses:	
EIS Guideline Development Workshop, Baker Lake	\$3,000.00
(BQCMB Biologist: Airfare Yellowknife-Baker Lake, Accommodation-4 nights)	
BQCMB Workshop-Baker Lake HTO	\$3,000.00
(BQCMB Biologist: Airfare Yellowknife-Baker Lake, Accommodation-4 nights)	
BQCMB Workshop-Arviat HTO	\$3,000.00
(BQCMB Biologist: Airfare Yellowknife-Arviat, Accommodation-4 nights)	
Technical Meeting/Pre-hearing conference, Baker Lake	\$3,000.00
(BQCMB Biologist: Airfare Yellowknife-Baker Lake, Accommodation-4 nights)	
Public Hearing: Biologist and BQCMB Chair	\$8,000.00
(BQCMB Biologist: Airfare Yellowknife-Baker Lake, Accommodation-4 nights,	
BQCMB Chairman: Airfare Tadoule Lake MB-Baker Lake,	
Accommodation-6 nights)	
Per Diems-Federal Rates: 33 travel days @ \$124.75 = 4,116.75	\$4,100.00

\$24,100.00

Office supplies:

Mapping; Printing; Shipping \$ 500.00

Rental of office space / meeting rooms:

BQCMB workshops (2) with HTOs \$ 3,000.00 Room rental; refreshments

How did you hear about the Participant Funding Program for the Review?

NIRB X

Federal government \_\_\_\_\_

Territorial government X

Newspaper \_\_\_\_

Email to your organization X

Word of mouth

Other: please specify BQCMB Meetings

# Participant Funding Program

### **Application for Funding: Certification Form**

#### **Certification and Consent:**

Ross C. Thompson

I/we hereby certify that the information I/we have provided in this application is accurate to the best of my/our knowledge. In the event that a participant funding award is to be made based on this application, I/we agree that no funding will be payable unless I/we sign the INAC standard Contribution Agreement.

I/we hereby consent to the NIRB providing a copy of this Application Form and of the aforementioned Contribution Agreement (once signed by me/us and by INAC) to any person that the NIRB deems appropriate in the circumstances. I/we further consent to the NIRB making copies of any written submissions during the Review process, by me/us or by the corporation, organization, group or association that I/we represent and to use those copies for purposes related to the Review.

The information collected will be subject to the *Access to Information Act*.

1 variic	
Secretary-Treasurer, BQCMB	
Title	
Ross C. Thompson	
	April 12 2010
Authorized signature	Date



#### PARTICIPANT FUNDING APPLICATION FORM

NWB/NIRB Use Only	
Date Received:	
File Number:	

#### Participant Funding: Application for Funding

Please refer to "How to Complete Your Application Form" of the guide entitled "Participant Funding" when completing this application.

## **Step 1: Applicant Information**

1.1 Name and location of project:

NIRB 09MN003 - AREVA Resources Canada Inc's Kiggavik Project Proposal

1.2 Please specify which phases of the review you intend to participate in:

Review and comment on the draft scope of the project; the draft guidelines for the EIS, the draft Environmental Impact Statement submitted by the project proponent, preparation for an participation in the Technical Meetings and Pre-Hearing Conference, and review of the final Environmental Impact Statement submitted by the project proponent and preparation and participation in the Final Hearing.

1.3 Name of applicant (individual or organization):

Canadian Arctic Resources Committee Inc. Attention David Gladders, Executive Director

1.4 Web site address: www.carc.org

1.5 Legal name of applicant (if different): N/A

**1.6 Mailing address:** PO Box 371, Station A

1.7 City / Town: Ottawa

**1.8 Province:** Ontario

1.9 Postal Code: K1N 8V4

1.11	<b>Telephone number:</b> 613-759-4284, cell number 613-263-2109
1.12	Fax number: 613-237-3845
1.13	E-mail address: davidg@carc.org
1.14	If the application is for an individual or a law firm, indicate on whose behalf you are submitting this application.
Appl	ying on behalf of him/herself or law firm N/A
Appl	ying on behalf of an unincorporated entityN/A
1.15	Name of unincorporated entity: N/A
(Note:	Applications will not be accepted from unincorporated entities in their own name.)
If you as the	Name and title of contact person for corporation/ organization/ group/ association: represent an entity (incorporated or otherwise) supporting documentation, endorsing you entity's representation must be attached to this application.
N/A	
1.17	Language of correspondence
_	ish <u>X</u> ch <u>N/A</u>
1.18	Telephone number (if different): N/A
1.19	Fax number (if different): N/A
1.20	Is your organization incorporated? Yes X No
Busir GST	ral No <u>.: <b>258502-2-M</b></u> Provincial No.: <b>N/A</b> ness number (Canada Customs and Revenue Agency): <u><b>10684 2362 RR0001</b></u> /HST rebate number: <u><b>10684 2362 RR0001</b></u> /HST rebate <b>%: 50</b> <u>%</u>
1.21	Have you applied or will be applying for funds from other sources to participate in the hearing or review process? No $\underline{X}$ Yes
If yes	s, please specify how much and the source.

#### 1.22 Describe your or your organization's major goals and mandate.

#### Background

Established in 1971-3, CARC is a well-respected non-partisan, public interest, research and advocacy organization. Composed of citizens committed to environmentally-responsible northern development, support for the rights of Aboriginal peoples, devolution of provincial-type authority to northern governments and increased international co-operation in the circumpolar world.

CARC has a reputation for high quality research and public policy analyses, effective public communication and advocacy, and helping to set the public policy agenda. CARC has published more than 100 books, monographs, and conference proceedings, and Northern Perspectives.

#### **Mission Statement**

CARC is dedicated to promoting the stewardship of ecosystems and the social and economic well being of northern peoples and fulfils this mission through, policy development and research, public information and education and capacity building.

#### Structures and Governance

- **Board of Directors:** A board of eight Directors governs CARC providing a traditional operating framework; in addition the board is an active Committee giving comment and direction on issues, reports, and presentations that form part of the day-to-day activities of the organization.
- **Public Supporters:** Individual Canadians from all provinces and Territories provide financial support to CARC, but do not hold 'membership'.
- Advisory Council: Respected Canadians with expertise to assist CARC calls on a number of respected Canadians with varied expertise to assist in our work.
- Ad Hoc Technical Advisory Committees: For each major program, CARC creates a special advisory group to provide advice and assistance over the duration of the program.

# **Scope of Activities**

CARC operates offices in Yellowknife, Northwest Territories and Ottawa, Ontario. The office in Ottawa provides corporate services; overall financial support to the organization and projects; proposal development, implementation and management for research, publications and Northern Perspectives; fund raising and direct mail; and maintains regular contact with federal, territorial and provincial government officials, politicians, and aboriginal and non-aboriginal NGO's respecting northern issues. The Yellowknife office has

a small reference library currently used by NWT NGO's and the Independent Environmental Monitoring Agency. In the past the Co-ordinating Committee for the Mackenzie Gas Project used the office for the duration of the National Energy Board and Joint Review Panel hearings, the Arctic Indigenous Youth Alliance. The office is available over the summer to graduate students involved in Arctic research requiring office space.

CARC's first, second, third and fourth national workshops, held in 1973, 1978,1983 and 2002 respectively, profoundly influenced the public policy agenda and yielded widely distributed, highly praised and often quoted workshop proceedings; the Government of Canada's 1986 Comprehensive Land Claims Policy, for example, owes much to the 1983 national workshop. The purpose of CARC's national workshops is not only to air significant northern science and policy research, but to bring this knowledge to bear on the development of public policy and concrete action. CARC's fourth national workshop "On Thinning Ice", held in 2002 was one of the first national conferences to explore the challenges of climate change in the north.

The fifth national workshop 2030 NORTH: A National Planning Conference was held in June of 2009 and attended by over 300 people. Keynote Speaker Sheila Watt Cloutier started the conference co chaired by Mary Simon, President of the Inuit Tapiriit Kanatami and former Yukon Premier Tony Penikett. Delegates attending the conference reviewed five papers commissioned by CARC, presentations by panel members and working in small discussion groups drafted a series of recommendations.

The five original, commissioned papers addressed the following key issues and opportunities facing the Arctic:

- 1. In the Grip of Climate Change: Circumpolar Canada 2030: exploring the range and cumulative effects of climate change impacts, the promise and limits of adaptation, and the role of the Canadian and circumpolar Arctic in developing and implementing national and global climate change policy.
- 2. The Pace of Change: exploring the nature and rate of change anticipated in the economic, environmental and social state of affairs in Yukon, NWT, Nunavut, Nunavik and Nunatsiavut to 2030.
- 3. Land Claim Agreements: the role of comprehensive land claims and Aboriginal self-government agreements in shaping the Arctic landscape: can we get it right?
- 4. A Northern Science Policy for Canada: what needs to be done, at what cost, and by whom, to establish a northern science policy in the context of Canadian and circumpolar needs and goals.
- 5. Canada's North A New Strategy: the renewal and expansion of the Northern dimension to Canada's foreign policy.

Conference papers, proceedings, summaries, recommendations and documents are available at http://www.2030north.carc.org.

In 2005 CARC published on-line a two year study, Mining Reclamation in the NWT; and three significant reports and maps on cumulative impacts of the Mackenzie Gas Project (MGP). (<a href="http://www.carc.org/mining">http://www.carc.org/mining</a> and sustainability.php.)

In 1995 CARC published the Northern Minerals Program Working Paper series (http://www.carc.org/northern\_minerals.php):

- 1. Mine Reclamation Planning in the Canadian North
- 2. Aboriginal Title and Free Entry Mining Regimes in Northern Canada
- 3. Reforming the Mining Law of the Northwest Territories
- 4. A Guide to Community-Based Monitoring for Northern Communities
- 5. The Free Entry Mineral Allocation System in Canada's North
- 6. Aboriginal Peoples and Impact Benefit Agreements: A Report of a National Workshop.

In 1975 CARC coordinated the "Northern Assessment Group" in the Mackenzie Valley Pipeline Inquiry hearings and acts as the lead environmental intervener. Since that time, CARC has been involved in numerous northern issues, from helping negotiate an international treaty on toxic chemicals, to ensuring that Canada's first diamond mines are given the most thorough environmental assessments possible.

In 1972 CARC hosted the workshop <u>Mackenzie Delta Gas</u>; <u>Now or Later?</u> and published the findings as an early signal on the challenges posed by the gas pipeline mega project.

The issues and conditions that 'gave birth' to CARC are not unlike the challenges of today and the need for a continuing presence of CARC's presence remains. Today's concerns about the impact of the MGP in the NWT and mining in Nunavut call upon the past work of CARC in <u>Voices from the Bay – Traditional Ecological Knowledge of Inuit and</u> Cree in the Hudson Bay Bioregion and Caribou and the barren-lands.

#### 1.23 Describe your interest in the Review.

Prior to the Nunavut Land Claim Agreement an extensive debate and examination of witnesses was held in 1981 and 1982 by the Legislative Assembly of the Northwest Territories on the subject of uranium mining eventually culminating in the Baker Lake Plebiscite.

A central concern within those debates and continuing through until today is the impact of development upon the caribou and in this case the declining Beverly and Qamanirrjuaq herds in the Kivalliq.

In the CARC submission to Nunavut Impact Review Board and Indian and Northern Affairs Canada titled <u>Caribou Landscape Vulnerability Mapping Bathurst Inlet Port And Road Submitted by the Canadian Arctic Resources Committee To the Nunavut Impact Review Board As Part of the CARC Technical Presentation we developed a "...simple, yet data and research –driven approach that can be drawn upon for alternate development proposals, and replicated efficiently for other areas."</u>

A copy of this paper is provided with this application.

CARC plans to provide expert information relevant to the anticipated effects of the Kiggavik project built upon the CES work provided to the NIRB for BIPAR, and for the MVEIRB De Beers Public hearings, CARC submitted to MVEIRB on April 28 2003 at the hearing three maps of the Slave Geological Province.

CARC is not opposed to development but believes a complete CES is necessary.

# **Step 2: Description of Proposed Activities**

Describe your proposed contribution to the Review, including:

- the objectives of your participation;
- your proposed activities for which you are seeking funding; and
- how these proposed objectives and activities may contribute to the hearing or review's understanding of the anticipated effects of the project.

Identify your capacity to carry out the proposed activities.

(Describe relevant experience, expertise and skills you or your organization have that will help you to carry out your proposed activities.)

#### **Proposed Activities**

CARC has developed extensive expertise in mapping Cumulative Effects Assessment. Our issue of Northern Perspectives on Caribou in the Canadian North reflected the concerns of the Inuit, Inuvialuit, Dene and Métis users of the northern herds as we try to understand the status of each herd.

#### 2.1 Objectives

As stated in <u>Caribou Landscape Vulnerability Mapping Bathurst Inlet Port and Road Submitted by the Canadian Arctic Resources Committee To the Nunavut Impact Review Board As Part of the CARC Technical Presentation;</u> prepared by David Flanders, Anne Gunn, Petr Cizek and David Gladders, December 2009.

- Assess the potential effects of the Kiggavik Project using a GIS-based analysis of caribou seasonal locations using satellite telemetry and habitat to assess caribou risk to disturbance from the project activities.
- Using expert opinion and experience from other caribou herds to rate vegetation habitat maps for the likelihood of their use relative to foraging and predation risk.
- Prepare composite maps of caribou seasonal distribution and habitat to measure the relative seasonal vulnerability of caribou across the landscape.
- Convene a community workshop in Baker Lake to review the maps, show the proposed development and community recommendations.
- Review and provide comment and recommendations all aspects of the hearing process

#### 2.2 Activities

CARC's is seeking funding to provide comments on the scope of the project, the EIS guidelines, the draft EIS and final EIS, and to provide the NIRB with a report on the Kiggavik Project based on Caribou Landscape Vulnerability mapping similar to that provided for BIPAR for:

- Research activities for team including expertise in Cumulative Effects Assessment and mapping, and Caribou Biology.
- Prepare presentations and maps to the NIRB in both hearing phases for research, information requests etc.
- Convene a Community Mapping Workshop in Baker Lake
- Provide funding for travel to the NIRB hearings.
- 2.2.1 Scoping review the Draft Scope of the project proposal and identify and recommend issues to be considered during the review.
- 2.2.2 Draft Guidelines review the Draft Guidelines issued by the NIRB to the project proponent and identify and recommend issues to be considered in the EIS.
- 2.2.3 Draft EIS review the Draft EIS from the proponent and identify information requests.
- 2.2.4 Baker Lake Community Workshop presentation of caribou landscape vulnerability maps, and recommendations from those in attendance, report back to those in attendance.
- 2.2.5 Technical Meetings and Pre-Hearing Conference presentation of caribou landscape vulnerability report.
- 2.2.6 Final EIS review, comment and develop recommendations.
- 2.2.7 Final Hearing presentation and recommendations to the NIRB.

The expected outcomes of our work would illustrate the need for the proponent to develop the project in a manner that would reduce the impact on Caribou.

#### 2.3 Capacity

CARC has put together a team composed of:

• David Gladders, Executive Director: a former employee of the Government of the Northwest Territories, the Fur Institute of Canada and the Inuit Tapiriit Kanatami he has worked in variety of national and international forums dealing with Aboriginal and Non-Aboriginal policy, program, wildlife and environment issues, and the development of national and international regulation. He has travelled to most communities in the Northwest Territories, Nunavut; Nunavik (northern Quebec), and Nunatsiavut (northern Labrador); internationally to Argentina, Europe, Malaysia, and the United States attending CITES, IUCN, the EEC and EU, and discussions with national governments within the EU.

- Petr Cizek, Consultant has prepared CE maps for CARC for the Slave Geological Province, the impacts of the Mackenzie Gas Project, Meta Cumulative Effects in the Northwest Territories. He also prepared CARC's submissions to the Joint Review Panel and made CARC's presentation to the panel in Yellowknife. All material is posted on the CARC WEB site at <a href="https://www.carc.org">www.carc.org</a>. He is currently completing a PHD in Cumulative Impact Assessment at the University of British Columbia. Co-author <a href="https://caribou.landscape.vulnerability.org/">Caribou.landscape.vulnerability.org/</a> Mapping Bathurst Inlet Port and <a href="https://reada.nate.org/">Road Submitted by the Canadian Arctic Resources Committee To the Nunavut Impact Review Board As Part of the CARC Technical Presentation;</a> prepared by David Flanders, Anne Gunn, Petr Cizek and David Gladders, December 2009.
- David Flanders, BSc, MLA School of Architecture and Landscape Architecture Tel:(604) 822-4148 Email: flanders@interchange.ubc.ca. Interested in landscape architecture, spatial planning, and urban design, David currently works as a researcher on projects involving a variety of scales in both urban and natural environments. Coming from a background in landscape architecture, ecology, geography and forestry, he would like to contribute to methodologies that integrate GIS and CAD tools creatively. He enjoys exploring the potential of 4D visual communication and interactive design process, particularly in landscape scenario visualization. Co-author Caribou Landscape Vulnerability Mapping Bathurst Inlet Port and Road Submitted by the Canadian Arctic Resources Committee To the Nunavut Impact Review Board As Part of the CARC Technical Presentation; prepared by David Flanders, Anne Gunn, Petr Cizek and David Gladders, December 2009.
- Caribou Biologist: we are in the process of reviewing the recommendations we have received for a wildlife biologist to review both the draft and final EIS, and Caribou research data analysis.

#### 2.4 Relevant Experience

CARC plans to provide expert information built upon CES work presented as research papers and presentations at Public hearings in the Yukon, Northwest Territories and Nunavut.

CARC has submitted to the Nunavut Impact Review Board and Indian and Northern Affairs Canada <u>Caribou Landscape Vulnerability Mapping Bathurst Inlet Port and Road Submitted by the Canadian Arctic Resources Committee To the Nunavut Impact Review Board As Part of the CARC Technical Presentation; prepared by David Flanders, Anne Gunn, Petr Cizek and David Gladders, December 2009.</u>

CARC's presentation the Joint Review Panel of the Mackenzie Gas Project for Topic 15, titled A Choice of Futures: Cumulative Impact Scenario's of the Mackenzie Gas Project, and Topics 17 dealing with Recommendations and Topic 18 Net Contribution of the Project and Closing Remarks. The CARC maps formed part of Chapter 3 Potential Future Development of the final report Foundation for a

Sustainable Future – Report of the Joint Review Panel for the Mackenzie Gas Pipeline. CARC also submitted to the JRP A Peak Into the Future – Potential Landscape Impacts of Gas Development in Northern Canada.

CARC has provided expert information on CES at the Mackenzie Valley Environmental Impact Review Board De Beers Public hearings and to the NIRB in the BIPAR review.

- "Estimated Physical Footprint of Human Activities in the Bathurst Inlet Port and Road Study Area of the Slave Geological Province" (April 28, 2003).
- "GLOBIO Cumulative Effects Estimate: Existing Activities 2003".
- "GLOBIO CE Modeling: High Induced Development Scenario".

# 2.5 Describe why you believe your participation will bring an important and distinct perspective to the hearing or review.

CARC's commitment to working with both aboriginal and non-aboriginal people in the Yukon, NWT, Nunavut, Nunavik and Nunatsiavut spans 30 years, a review of CARC at <a href="https://www.carc.org">www.carc.org</a> illustrates this commitment.

We have focused on caribou in the Kivalliq Region because of their importance as a food source and their role in the survival and culture of the Inuit in the region. Our approach is unique as it provides a focus to understanding how caribou select topography and vegetation to reduce predation risk and increase their foraging capacity. Their nutritional needs change with the seasons and attempt to balance, predation risk, human development activities and availability of vegetation for calving and survival.

We appreciate the proponents' goals of northern development but feel development in any Caribou calving ground within Canada undermines the Canadian position with the USofA regarding the management of the Porcupine Caribou herd and the impact this would have on the Gwich'in of the Yukon and NWT and the Inuvialuit.

# 2.6 Have you or your organization made an effort to cooperate with other individuals or organizations in preparing a funding application?

No <u>X</u>	
Yes _	

CARC will depend solely on contributions from individual donors and this application.

If yes, please specify name of individual / organization

#### 2.7 How are the proposed activities incremental to your ongoing business?

CARC has an active interest in Caribou management across the north since its inception 30 years ago. We have convened numerous workshops in the north relating to the management of Caribou, published **Caribou and the Barren Lands** and Northern Perspectives based on recent management meetings, and user's concerns. The herds are the food basket for

many northerners; the hunting culture that developed is reflected in the aboriginal languages of the north, and the cultural, social and educational values of the Inuit, Dene, and Métis. The value of the Caribou herds and their protection is represented in the principles and activities of each successfully negotiated northern aboriginal land claim.

With the development of this tool based on mapping caribou landscape vulnerability CARC will have provided individuals, developers, communities, government and regulatory boards and agencies with an application that can be used across a variety of projects involved in land use planning where conflicts with caribou can potentially occur.

# **Step 3: Funding Requested**

Please summarize your request for funding of eligible expenses, using the following table (see part 2 of the guide entitled *Participant Funding* for information on each expense category):

With respect to each expense, please provide additional information to support your request. Use additional sheets if needed.

#### 3.1 Priority Expense Category Funding Requested

Item	Amount Requested	Priority
Local collection /		
distribution of information	10,252.92	High
Professional fees		
	76,400.00	High
Travel Expenses	16,18.12	High
Office Supplies	N/A	Low - Absorbed by CARC.
Rental Office Space Meeting	N/A	Low - Absorbed by CARC.
Rooms		
Staff Salaries	N/A	Low – Absorbed by CARC.
Legal Fees	N/A	Low - Absorbed by CARC.
General Media advertising	N/A	Low - Absorbed by CARC.
and promotion.		
Purchase of Information	3,000.00	High - Publication of maps
material.		and presentations.
Other (Specify)	1,000.00	Medium - Telephone,
		Teleconference
TOTAL funding request	107,471.04	

#### 3.2 Local Collection/Distribution of Information

Baker Lake Community Workshop – Community input is essential to ensure accuracy, and the contribution of Inuit Qaujimaningit. A community workshop allows for presentation of the mapping material and for Baker Lake residents to provide local knowledge on calving, migration, predation and vegetation types available to caribou.

Professional fees and travel from Vancouver return, overnight in Winnipeg, based on Federal Treasury Board Guidelines (April 1, 2010), First Air rates, and local hotel room charges.

Item	Cost	Additional Information	
Community Meal	1,000.00	Assistance for lunch and	
		refreshments for attendees	
Professional fees (excluding		4days travel and 3 day	
legal fees)-David Flanders	3500.00	workshop @ \$500.00/day	
Air travel return		Baker Lake Vancouver	
	3284.67	return with overnight in	
		Winnipeg	
Hotel	1295.00	7 days @ 185.00/day	
Meals & Incidentals	873.25	Federal Rate for 7	
		days@1254.75	
Cab fare & Miscellaneous	300.00		
Rental Meeting Rooms	N/A	Absorbed by CARC.	
TOTAL	10,252.92		

#### 3.3 Professional Fees

CARC has assembled a small team based on our experience in preparing the report on caribou vulnerability for BIPAR. Team members are expert and experienced at their field. Tasks - Review of EIS, document review, modeling, mapping, visualization, stakeholder consultation. Information for each individual can be found in section 2.3 Capacity. David Gladders is listed under Professional Fees as he is contracted to perform the Executive Director function for CARC separate from this project, additional project work beyond this base requires payment of a fee for his services for the project.

Item	Amount Requested	Additional Information
Petr Cizek	15,000.00	20 days@750.00/day
David Flanders	30,000.00	60 days@500.00/day
Caribou Biologist	15,000.00	20 days@750.00/day
David Gladders	15,000.00	20 days @750.00/day
Accounting	1,400.00	4 days@350.00/day
TOTAL funding	61,400.00	
requested		

#### 3.4 Travel Expenses:

For both the Technical Hearing and Final hearing, meals calculated on federal allowance (April 1, 2010), airfare full fare for two people from Vancouver, and accommodation as per Cambridge Bay Hotels. It is likely that the airfare costs would be reduced by advance bookings once hearing dates are determined.

Item	Person One	Person Two	Additional
			Information
Airfare	5,450.81	5,450.81	
Taxis etc	300.00	300.00	
Meals 7daysx124.75			
	873.25	873.25	
Accommodation			
7days@255.00	1,785.00	1,785.00	
Total	8409.06	8409.06	16,818.12

# How did you hear about the Participant Funding Program?

NWB or NIRB $\underline{X}$
Federal government
Territorial government
Newspaper
Email to your organization
Word of mouth
Other: specify

# Participant Funding Program

# **Application for Funding: Certification Form**

#### **Certification and Consent:**

I/we hereby certify that the information I/we have provided in this application is accurate to the best of my/our knowledge. In the event that a participant funding award is to be made based on this application, I/we agree that no funding will be payable unless I/we sign the INAC standard Contribution Agreement.

I/we hereby consent to the NIRB providing a copy of this Application Form and of the aforementioned Contribution Agreement (once signed by me/us and by INAC) to any person that the NIRB deems appropriate in the circumstances. I/we further consent to the NIRB making copies of any written submissions during the Review process, by me/us or by the corporation, organization, group or association that I/we represent and to use those copies for purposes related to the Review. The information collected will be subject to the *Access to Information Act*.

David Gladders		
Name		
Executive Director		
Title		
David Dadders		
	April 12, 2010	
Authorized signature	Date	

1101 11

# **Caribou Landscape Vulnerability Mapping**

# **Bathurst Inlet Port and Road**

# **Submitted by the Canadian Arctic Resources Committee**

# To the

**Nunavut Impact Review Board** 

As Part of the CARC Technical Presentation

Prepared by: David Flanders, Anne Gunn, Petr Cizek and David Gladders

December 2009

#### December 2009

#### **Caribou Landscape Vulnerability Mapping**

#### **Bathurst Inlet Port and Road**

Introduction	1
Methods	
Figures	9
Acknowledgements	
List of References	
Web References	

#### 1. Introduction

The proposed Bathurst Inlet Port and Road (BIPAR) project crosses the seasonal ranges of two large herds of migratory tundra caribou: the Bathurst herd and the Ahiak herd. Given the importance of caribou to aboriginal people and their central ecological role, we have focused our review of the BIPAR environmental assessment on caribou.

Behavioral responses of caribou to human and specifically industrial activities (Wolfe et al. 2000, Stankowich 2008, Vistenes and Nellemann 2008) frequently reveal that caribou reduce their use of areas within 1–15 km of industrial developments such as roads, mines and oil fields (Boulager et al. submitted, Wolfe et al. 2000, Vistnes and Nellemann 2008, Stankowich 2008). Caribou response to human activity is probably similar to their responses to predation risk, which includes the trade-offs between countering predation risk without risking other behaviors, such as having enough to eat or not wasting energy by fleeing unnecessarily (Frid and Dill 2002). We expect then, that caribou are constantly evaluating the landscape features to balance the fear of predation (or human activities) with the need to forage efficiently (Hernandez and Laundre'. 2005). It follows from this, then, that caribou will be assessing and selecting landscape features such as topography, and vegetation in the context of reducing predation risk and maximizing foraging efficiency.

Caribou's nutritional needs change seasonally and thus the pattern of balancing response to predation risk (or human activities) and foraging change seasonally. During the snowfree season, caribou forage selectively preferring plants as their buds unfold and new leaves and flowers emerge (Russell et al. 1993, Griffith et al. 2001). Caribou cows with newborn and young calves are more responsive to human activities and their vulnerability is increased during calving and early post-calving as most all the cows in the herd and concentrated together on the calving grounds. Their need for uninterrupted foraging is also much greater than at other times of year as energetic demands for lactating cows double within 10 days of the calf's birth (White and Luick 1984; Parker et al., 1990; Chan-McLeod et al., 1994),The first three weeks is important because it is then that calves are most sensitive to factors that influence growth rate (e.g., maternal and environmental conditions), and they are most vulnerable to predation.

Our approach to assessing potential effects of BIPAR was a GIS-based analysis of caribou seasonal locations using satellite telemetry and habitat to assess caribou risk to disturbance from the proposed BIPAR road alignment. We mapped the relative potential probability of overlap between caribou seasonal distribution and the proposed BIPAR alignment, as well as the East of Kugluktuk (EOK) and Grays Bay Port and Road (GPAR). We then used expert opinion and experience from other caribou herds to rate vegetation habitat maps for the likelihood of their use relative to foraging and predation risk. The composite map of caribou seasonal distribution and habitat was then a measure of the relative seasonal vulnerability of caribou across the landscape.

The study area is the seasonal ranges of the Ahiak and Bathurst caribou herds within an area of the Slave geological province stretching from the western shores of the Bathurst Inlet, west to the border between the Northwest Territories, and south to the boreal forest tree line (see Figures 1 and 2). The methodology is intended to be a conceptually simple, yet data and research-driven approach that can be drawn upon for alternate development proposals, and replicated efficiently for other areas. We wanted a common basis to compare, for example, the relative vulnerability of caribou to alternative routes. A second objective was to examine at the landscape scale, seasonal vulnerability which could be used to refine monitoring and mitigation.

#### Four spatial terms describe calving grounds:

- 1. Annual Calving Ground = the calving ground for a particular year;
- 2. Extent of Calving = the outer perimeter of all known annual calving grounds;
- 3. Annual Concentrated Calving Area = the area of relatively high use within an annual calving ground; and
- 4. Extent of Concentrated Calving = the outer perimeter of all known annual concentrated calving areas (the probability statement in the second part of the definition was included because it helps control the tendency for continual expansion of the extent of calving area).

#### Terms relative to timing

The point of peak calving is:

• when 50% of cows in the herd have calved (i.e., at peak of calving) which varies both annually and from herd to herd.

Calves can be considered independent foragers:

• at about three weeks of age (based on expert opinion), but this varies by herd; agreed on the standard approach of using three weeks after peak of calving.

#### **Bathurst herd**

The earliest dates (3-6 June) and the latest dates (11-15 June) for peak of calving (Sutherland and Gunn 1996) reveal the annual variation and the extent of calving is 24 June to 13 July is three weeks after the peak.

#### 2. Methods

The analysis consists of mapping several spatial data sets, or layers, of caribou satellite collar telemetry and habitat which are normalized to a common index, weighted in terms of their relative importance in determining risk to caribou populations as a result of disturbance, and averaged together to produce a composite vulnerability index map.

Ecological variables that can serve as indicators to caribou herd health have been identified by Griffith et al. (2002) to include vegetation type and Normalized Difference Vegetation Index (NDVI). Based on this research, these are used to determine the suitability of habitat for caribou herds within the area surrounding the proposed BIPAR road alignment. The WKSS West Kitikmeot / Slave Study Society vegetation classes as classified by Mathews et al. (2001) and interpreted by Griffith et al., 2002, and Johnson et al., 2005 did not have sufficient spatial coverage of the study area. Other habitat data considered for analysis was the Circumpolar Arctic Vegetation Mapping (CAVM) data, however this was difficult to calibrate to existing studies for interpreting habitat class value to caribou populations, and is of more coarse resolution. Satellite-collar data for the Ahiak and Bathurst caribou herds throughout 1996 – 2008 is also used to spatialize the historical use of this habitat within the study area. Gunn et al. (2008) provide a comprehensive review of this telemetry data. This data set is used to determine the relative probability of occurrence of caribou herds in the study area. The following indicators layers will be used in this analysis:

- a. **Indicator: NDVI**. Normalized Difference Vegetation Index data was collected over the summers (July 11<sup>th</sup> to August 31<sup>st</sup>) of 1993 and 1995, accessed from the University of Alaska, Fairbanks (see CAVM, last accessed 2009).
- b. **Indicator: Caribou Telemetry.** Ahiak and Bathurst herd telemetry data is split into temporal (seasonal) ranges as defined by Gunn et al., 2008 (see Table 1) to allow for a seasonal analysis of caribou vulnerability. To reflect the variation in vulnerability associated with these seasonal distributions, and the differential impact these have on a final map of caribou vulnerability, weightings were assigned to the seasonally separated telemetry data (see Tables 2 and 3 respectively) for the subsequent analysis.

Table 1: Seasonal Break-down of caribou herd telemetry data (Gunn et al., 2008)

Season	Start date	End date
Calving	3-Jun	13-Jun
Extent of calving	14-Jun	5-Jul
Summer	6-Jul	22-Aug

Fall - Winter	23-Aug	14-Apr
Spring	15-Apr	2-Jun

Table 2: Weightings and rationale for weightings of seasonal Ahiak telemetry data

Season	Weightings	Rationale
Calving	3	
Extent of calving	2.5	
Summer	2	
Fall – Winter	1	
Spring	1.5	

Table 3: Weightings and rationale for weightings of seasonal Bathurst telemetry data

Season	Weightings	Rationale
Calving	3	
Extent of calving	2.5	
Summer	2	
Fall – Winter	1	
Spring	1.5	

Maps for all of the above variables were produced which were rasterized to a  $1~\rm km^2$  grid to provide cell values which could then be translated to a vulnerability index. Index values from 1-10 for are ascribed for all terrain in the study area, with 1 being areas where caribou would be the least sensitive to road development, and 10 being areas where caribou would be the most sensitive to road development.

a. **Indicator: NDVI.** Original NDVI values ranged on a scale from 1 to 8, with higher values indicating more productive vegetation cover (see Figure 3). Griffith et al., 2002,

point out that caribou cows and calves rely on areas of high green plant biomass during the calving and extent of calving periods. These NDVI values were translated to a range from 1 to 10, to match the vulnerability indices for the other indicators.

b. **Indicator: Caribou Telemetry.** The attribute information in the telemetry data for several cows suggested some were incorrectly assigned to herds. Caribou are assigned to a herd based on where they spend the calving and extent-of-calving seasons. The incorrectly labeled cows points were manually corrected by changing which herd they were assigned to or by removing them from the analysis. Table 4 shows which cows these were and the corresponding action, and Figure 4 shows the location of the Bathurst calving ground (From Cizek, 2003). The complete Bathurst and Ahiak herd telemetry data sets are shown in Figures 5 and 6.

Table 4: Showing modifications to the Ahiak and Bathurst telemetry data due to incorrect herd assignment

PARM PTT	ID Number	Year	Issue	Action
75026	202	2008	Outside of Bathurst and	Removed from Bathurst
			Ahiak Calving and	dataset
			Extent of Calving ranges	
55200	192	2005	Outside of Bathurst and	Removed from Bathurst
			Ahiak Calving and	dataset
			Extent of Calving ranges	
45902	167	2006	Outside of Bathurst and	Removed from Bathurst
			Ahiak Calving and	dataset
			Extent of Calving ranges	
55209	194	2008	Spends Calving and	Moved from Bathurst to
			Extent of Calving	Ahiak dataset
			seasons in Ahiak range	
55188	180	2008	Spends Calving and	Moved from Bathurst to
			Extent of Calving	Ahiak dataset
			seasons in Ahiak range	
64387	308	2007, 2008	Spends Calving and	Moved from Ahiak to
			Extent of Calving	Bathurst dataset
			seasons in Bathurst range	

A translation of individual caribou collar telemetry points into continuous patches of use-area is necessary to more realistically represent caribou herd behavior. To achieve this, a Kernel Density Estimator was performed for the seasonal Ahiak and Bathurst herd telemetry datasets using ESRI ArcGIS extension Hawth's Tools. The datasets for these two herds were each filtered into seasonal subsets, generating 10 telemetry sub datasets in total. The parameters of this Kernel Density Estimator analysis were adjusted iteratively. Higher density cluster areas

indicate the relative importance of particular habitat areas for caribou foraging as a result of the presence of larger caribou populations or durations of foraging occurring there. The percent volume contours were calculated which represent the boundaries of areas which contain 25%, 50%, 75% and 100% of the caribou herd GPS points. A 100% volume contour indicates the smallest area which would contain 100% of the caribou collar locations, or the least dense probability distribution. The 25% contour represents the smallest area to contain 25% of the caribou collar points, or the most dense calculated density distribution. These contour layers were converted to rasters with a consistent spatial extent which was equal to the minimum sized rectangle necessary to contain all caribou telemetry points (shown in Figures 5 and 6 as the "Greater Study Area"). Indexes were assigned by redistributing these percent contour values along a range of 1-10 (see Table 5 for vulnerability index assignment), and then mapped (see Figures 7-16) for incorporation with the other indicator layers to generate a final landscape vulnerability map (Figure 17).

Table 5: Kernel density estimator percent volume contours, and associated vulnerability indexes

Percent volume contour	Vulnerability Index
25	10
50	7.5
75	5
100	2.5
Greater Study Area Boundary	0

The vulnerability indexes of all indicator map layers are averaged, with each layer having unique weights or impact on the final composite vulnerability score for all terrain within the study area (Table 6).

Table 6: All indicator layers and corresponding weightings used to generate scores for the vulnerability landscape map

Vulnerability Indicator Layer	Weightings
Ahiak telemetry - Calving	3
Ahiak telemetry - Extent of calving	2.5
Ahiak telemetry - Summer	2
Ahiak telemetry - Fall–Winter	1
Ahiak telemetry - Spring	1.5
Bathurst telemetry - Calving	3
Bathurst telemetry - Extent of calving	2.5
Bathurst telemetry - Summer	2
Bathurst telemetry - Fall–Winter	1
Bathurst telemetry - Spring	1.5
NDVI	1

All indicator layers are inputs for a weighted average calculation, culminating in a cumulative "vulnerability landscape" map which identifies the areas where disturbance would pose the greatest risk to caribou herds (Figures 17). Index values between 0.95 and 5.62 were observed

**Bathurst Inlet Port and Road** 

throughout the landscape from this weighted average calculation. This indexed map was reclassed to 10 equal interval classes, providing a range from 1 - 10 in the final map (Figure 18).

Proposed road alignments for the BIPAR, East of Kugluktuk (EOK) and Grays Bay Port and Road (GPAR) were received from MMG Minerals and Metals Group. The vulnerability landscape map area within a 20km zone-of-influence buffer around these proposed road alignments is examined (Figure 19). Profiles and summary statistics for the vulnerability scores of habitat within these 20km BIPAR, EOK and GPAR zone-of-influence areas is shown in Figures 20 and 21.

This vulnerability landscape map may be seen as a map which expands or contracts the ecological footprint of the proposed road depending on its crossing over terrain which received higher or lower vulnerability scores respectively. In effect, it gives an indication on relative road corridor widths and corresponding habitat loss from the perspective of the Ahiak and Bathurst caribou herds. This map could be used in subsequent studies to assess:

- 1. Alternate indicators (input map layers for the vulnerability landscape map)
- 2. Alternate weightings (to assign different importance to indicators map layers)
- 3. Alternate road alignments (to overlay onto the existing vulnerability landscape map, and compare to vulnerability profile for the alignments shown in Figure 20)
- 4. Subsequent development which would spawn as a result of BIPAR or other proposed roads
- 5. The targeting of mitigation efforts to areas with higher vulnerability scores for caribou populations.

This assessment could also be used as an input driver for ongoing modeling by Johnson (in progress) that explores the cascading impacts of development on environmental change and caribou population demographics.

# 3. Figures

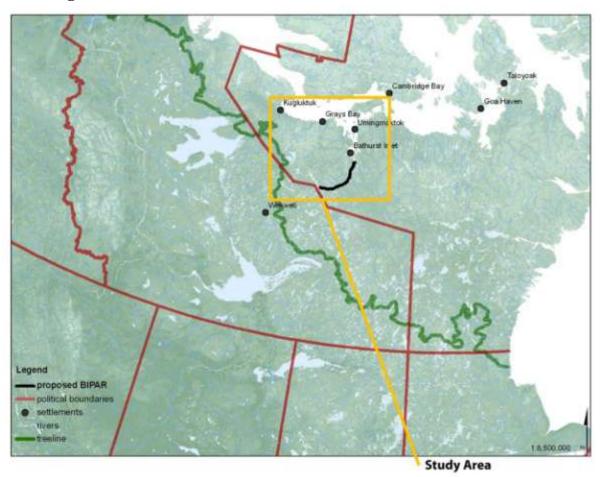


Figure 1: Proposed Bathurst Inlet Port and Road (BIPAR) and northern extent of treeline within Northwestern Canada

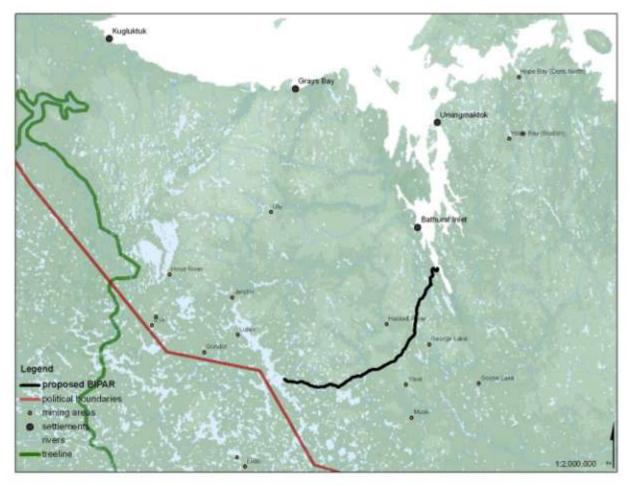


Figure 2: Project study area, which resides within the area bounded by the treeline, northern coastline and western coast of Bathurst Inlet

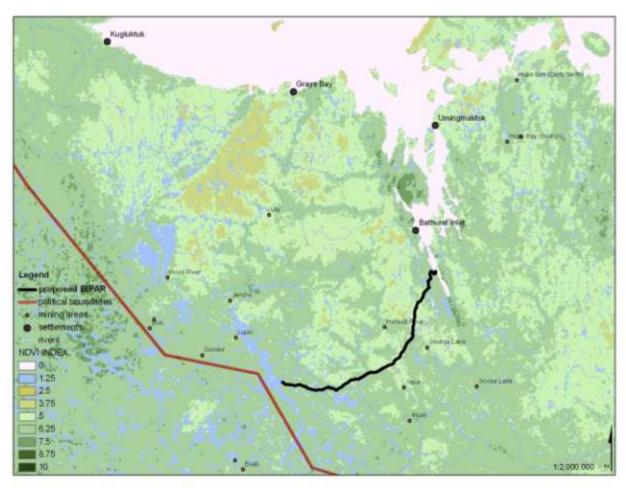


Figure 3: NDVI mapping translated to Vulnerability Index (772m x 772m)

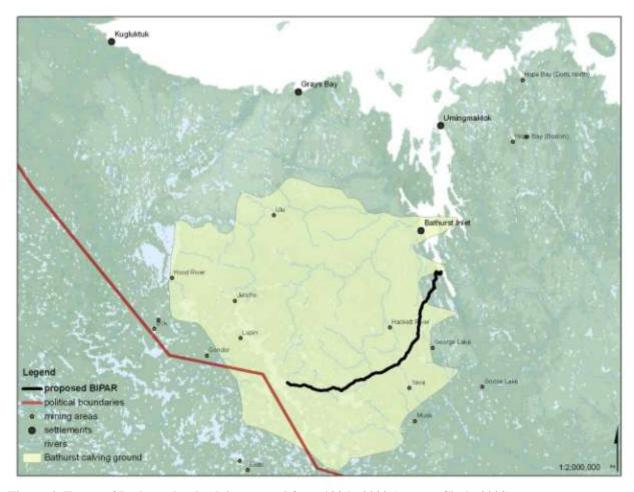


Figure 4: Extent of Bathurst herd calving ground from 1996 - 2002 (source: Cizek, 2003)

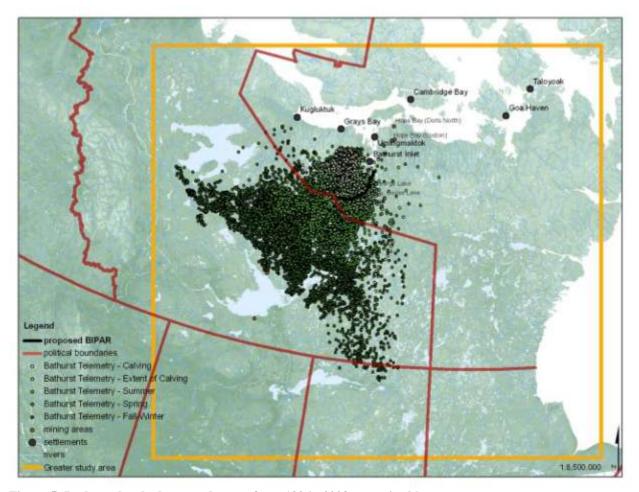


Figure 5: Bathurst herd telemetry data set from 1996 - 2008, organized by season

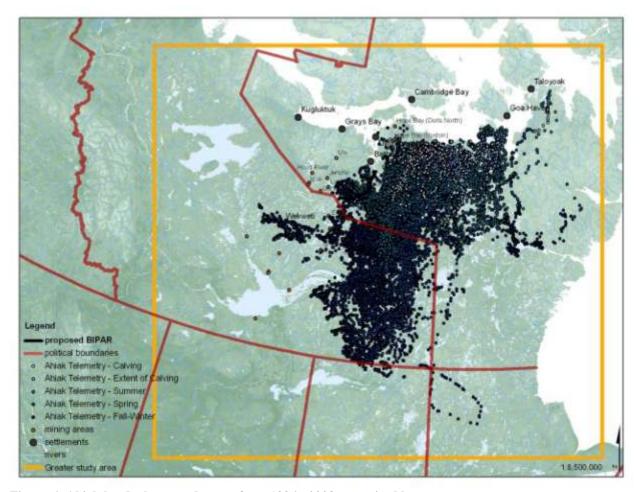


Figure 6: Ahiak herd telemetry data set from 1996 - 2008, organized by season

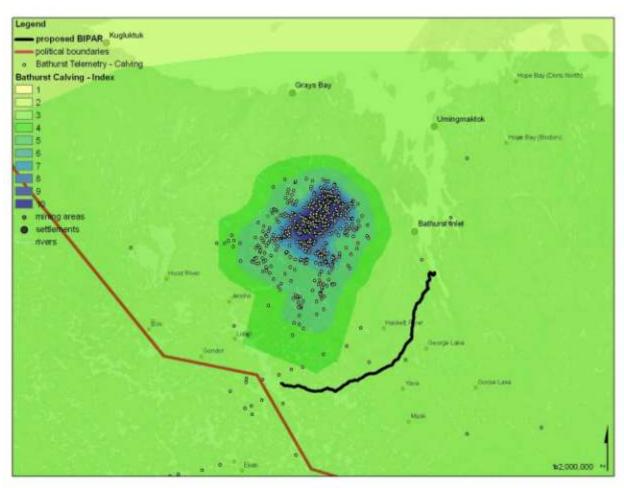


Figure 7: Results of the Kernel Density Estimator for the Bathurst caribou herd calving range (shades of blue), along with individual caribou collar telemetry GPS points during the calving season (points)

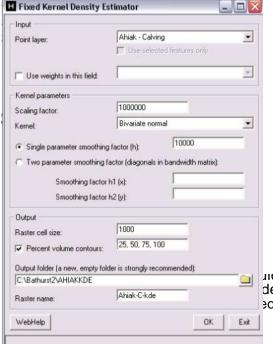


Image inset: Parameters for Hawth's Tools Fixed Kernel Density Estimator (Figures 5 - 9), cell size:  $1000 \text{m} \times 1000 \text{m}$ 

and a decompressor at to see this picture.

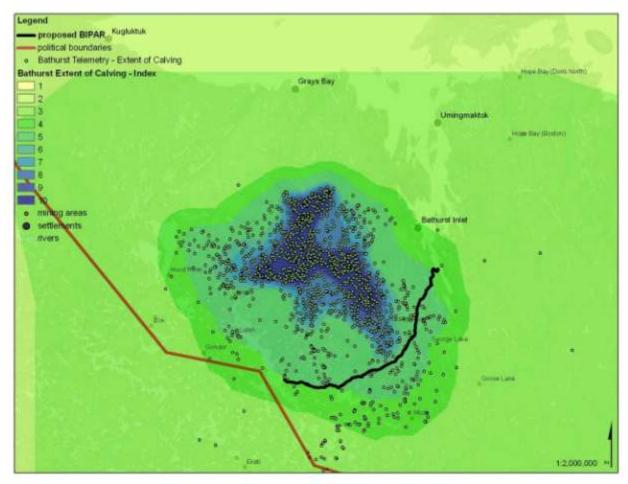


Figure 8: Results of the Kernel Density Estimator for the Bathurst caribou herd extent of calving range (shades of blue), along with individual caribou collar telemetry GPS points during the extent of calving season (points)

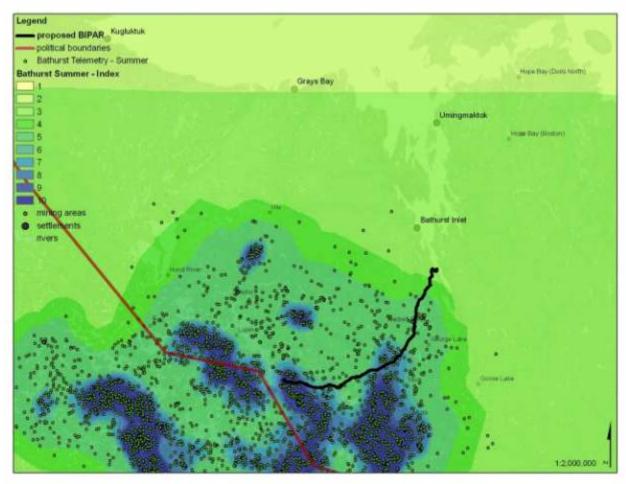


Figure 9: Results of the Kernel Density Estimator for the Bathurst caribou herd summer range (shades of blue), along with individual caribou collar telemetry GPS points during the summer season (points)

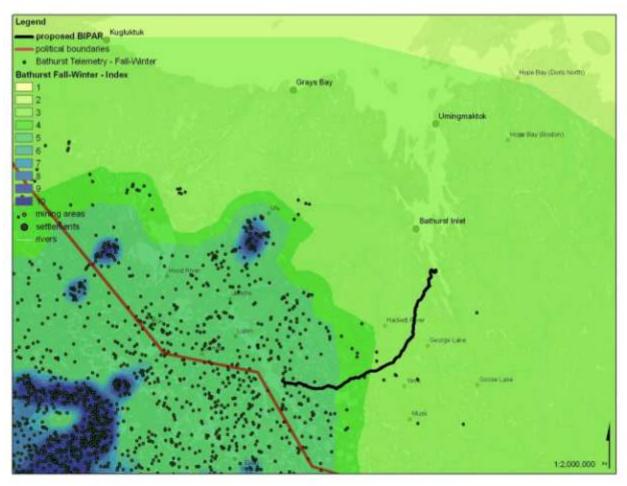


Figure 10: Results of the Kernel Density Estimator for the Bathurst caribou herd fall-winter range (shades of blue), along with individual caribou collar telemetry GPS points during the extent of fall-winter season (points)

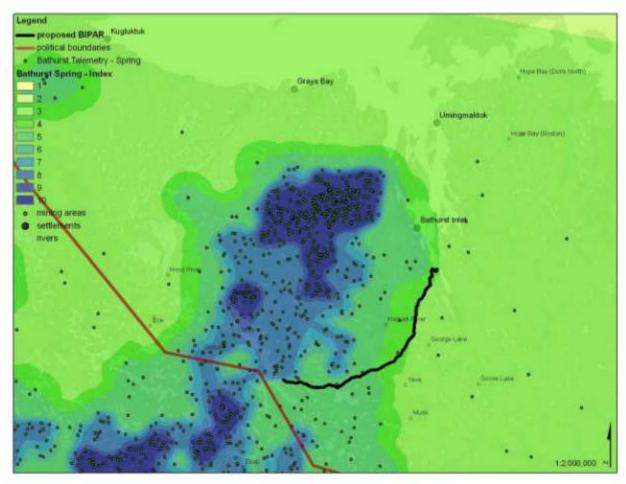


Figure 11: Results of the Kernel Density Estimator for the Bathurst caribou herd spring range (shades of blue), along with individual caribou collar telemetry GPS points during the spring season (points)

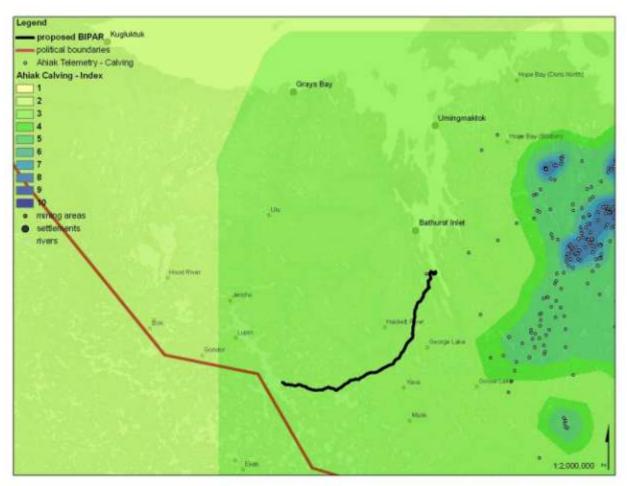


Figure 12: Results of the Kernel Density Estimator for the Ahiak caribou herd calving range (shades of blue), along with individual caribou collar telemetry GPS points during the calving season (points)



Figure 13: Results of the Kernel Density Estimator for the Ahiak caribou herd extent of calving range (shades of blue), along with individual caribou collar telemetry GPS points during the extent of calving season (points)

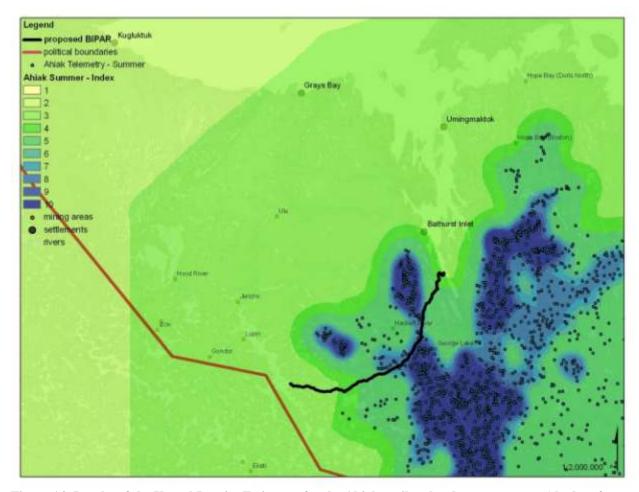


Figure 14: Results of the Kernel Density Estimator for the Ahiak caribou herd summer range (shades of blue), along with individual caribou collar telemetry GPS points during the summer season (points)

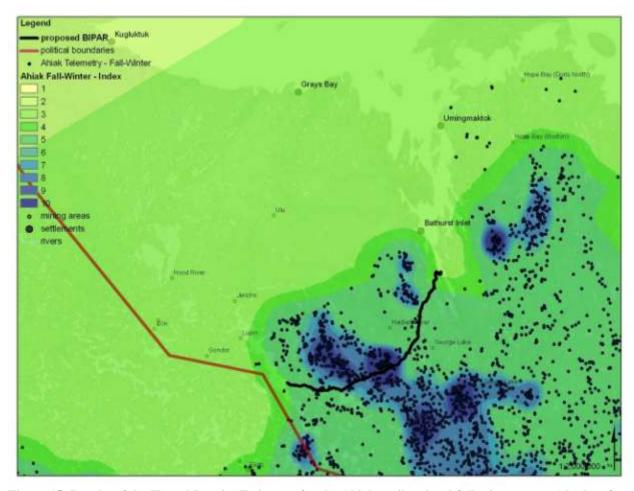


Figure 15: Results of the Kernel Density Estimator for the Ahiak caribou herd fall-winter range (shades of blue), along with individual caribou collar telemetry GPS points during the fall-winter season (points)

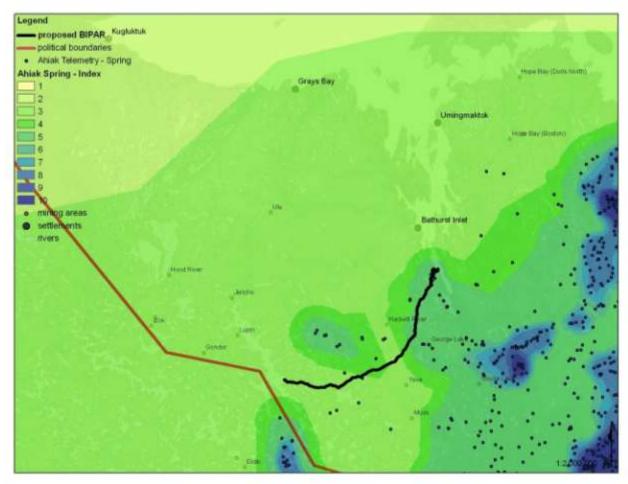


Figure 16: Results of the Kernel Density Estimator for the Ahiak caribou herd spring range (shades of blue), along with individual caribou collar telemetry GPS points during the spring season (points)

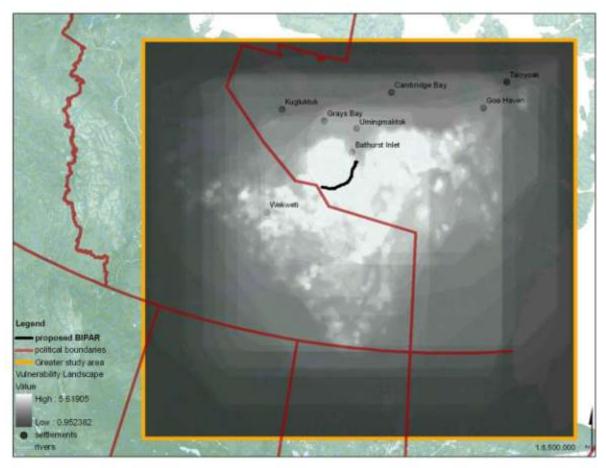


Figure 3: The caribou landscape vulnerability map, with values representing the average vulnerability indexes for the NDVI, WKSS, and seasonal Ahiak and Bathurst telemetry Kernel Density Estimators

nput rasters			
			▼
Raster	Field	Weight	
✓ Ahiak herd4\AhiakCalving	VALUE	0.142857142857143	
✓ Ahiak herd4\AhiakExtentofCalving	VALUE	0.119047619047619	
✓ Ahiak herd4\AhiakSummer	VALUE	9.52380952380952E-02	
✓ Ahiak herd4\AhiakFall-Winter	VALUE	4.76190476190476E-02	
✓ Ahiak herd4\AhiakSpring	VALUE	7.14285714285714E-02	
✓ Bathurst herd4\BathurstCalving	VALUE	0.142857142857143	
✓ Bathurst herd4\BathurstExtentofCalving	VALUE	0.119047619047619	
→ Bathurst herd4\BathurstSummer  → Bathurst herd4\Bathurst herd4\BathurstSummer  → Bathurst herd4\Bathurst h	VALUE	9.52380952380952E-02	
→ Bathurst_herd4\BathurstFall-Winter  → Bathurst_herd4\Bathurst_herd4\BathurstFall-Winter  → Bathurst_herd4\Bathurst_her	VALUE	4.76190476190476E-02	
	VALUE	7.14285714285714E-02	~

Image inset: Parameters for ESRI ArcGIS Spatial Analyst's Weighted Sum Overlay (Figures 26 - 28). Cell size: 1000m x 1000m. Assigned "Weight" values are from weightings shown in Tables 2 and 3, scaled to match the weighted sum algebraic formula.

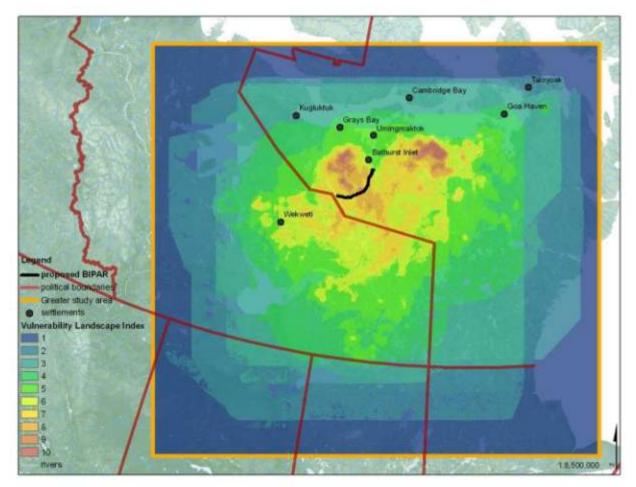


Figure 18: The caribou landscape vulnerability index map, with values representing the average vulnerability indexes for the NDVI, WKSS, and seasonal Ahiak and Bathurst telemetry Kernel Density Estimators, re-distributed along a range from 1-10.

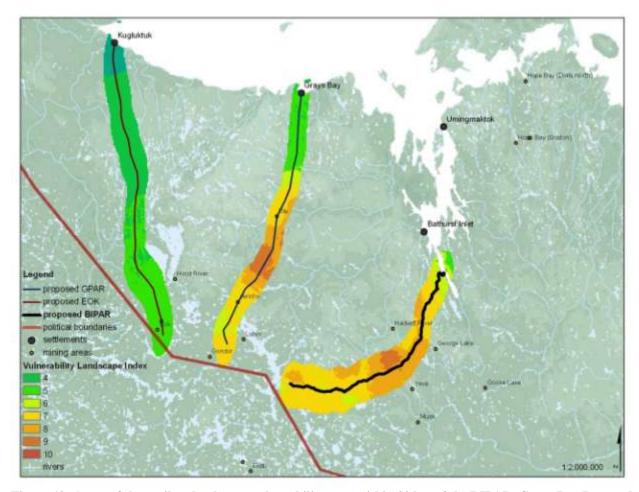


Figure 19: Areas of the caribou landscape vulnerability map within 20 km of the BIPAR, Grays Bay Port and Road (GPAR), and East of Kugluktuk (EOK) proposed road alignments.

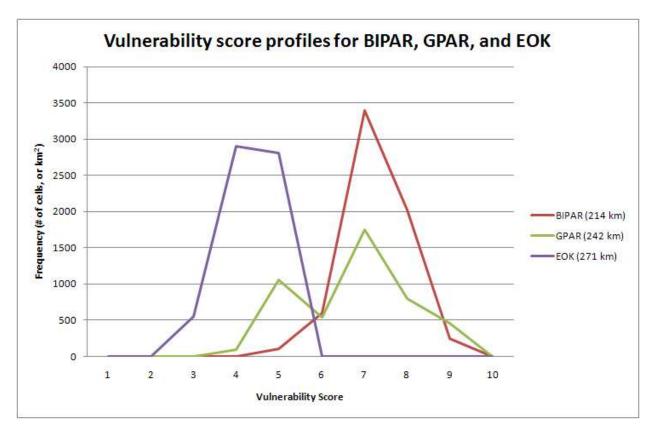


Figure 20: Profile of vulnerability scores for habitat within 20km zone-of-influence of proposed BIPAR, GPAR and EOK road alignments

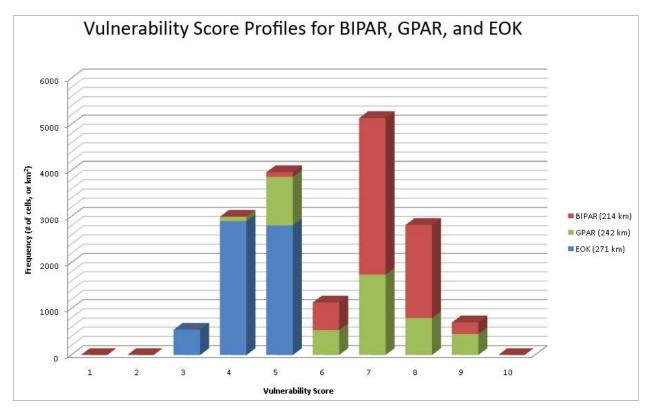


Figure 21: Profile of vulnerability scores for habitat within 20km zone-of-influence of proposed BIPAR, GPAR and EOK road alignments

	BIPAR	GPAR	EOK
Sum of Vulnerability Scores	46,264	31,649	27,313
Median Vulnerability Score	7	6.5	4
Modal Vulnerability Score	7	7	4
Average Vulnerability Score per grid cell (1 km2):	7.3	6.7	4.4
Sum of Vulnerability Scores per km of road:	216.2	130.8	100.8

#### 4. Acknowledgements

The authors would like to thank Kim Poole for providing valuable insight during the analysis of the vegetation class data, and for several sources of research information referenced in this study. Also Andrew Mitchell (MMG Minerals and Metals Group) for providing proposed road alignment data. Also, this study was made possible by Indian and Northern Affairs Canada, and the Canadian Arctic Resources Committee.

#### 5. List of References

- Cameron, R. D., W. T. Smith, R. G. White, and B. Griffith. 2005. Central Arctic Caribou and petroleum development: distributional, nutritional, and reproductive implications. Arctic 58:1–9.
- Cizek, P. 2003. Globio cumulative impact analysis in the Bathurst Inlent Port and Road study area of the Slave geological province.
- Frid, A., and L. M. Dill. 2002. Human-caused disturbance stimuli as a form of predation risk. Conservation Ecology 6:11. [online] <a href="http://www.consecol.org/vol6/iss1/art11/">http://www.consecol.org/vol6/iss1/art11/</a>
- Griffith, B., A. Gunn, D. Russell, J. Johnstone, K. Kielland, S. Wolfe, and D.C. Douglas. 2002. "Bathurst caribou calving ground studies: influence of nutrition and human activity on calving ground location. Prepared for the West Kitikmeot Slave Study Society".
- Gunn, A., A. D'Hont, J. Williams and J. Boulanger. 2008. "Satellite collaring in the Bathurst herd of barren-ground caribou". Prepared for the Department of Environment and Natural Resources, Government of Northwest Territories.
- Haskell, S. P., and W. B. Ballard. 2008. Annual re-habituation of calving caribou to oilfields in northern Alaska: implications for expanding development. Canadian Journal of Zoology 86:627–637.
- Hernandez, L., and J. W. Laundre´. 2005. Foraging in the landscape of fear and its implications for habitat use and diet quality of elk (Cervus elaphus) and bison (Bison bison). Wildlife Biology 11:215–220.
- Johnson, C. J., M. S. Boyce, R. L. Case, H. D. Cluff, R. Gau, A. Gunn, and R. Mulders. 2005. Cumulative effects of human developments on arctic wildlife. Wildlife Monograph 160:1–36.
- Joly, K., C. Nellemann, and I. Vistnes. 2006. A reevaluation of caribou distribution near an oilfield road on Alaska's North Slope. Wildlife Society Bulletin 34:866–869.

- Mahoney, S. P., and J. A. Schaeffer. 2002. Hydroelectric development and the disruption of migration in caribou. Biological Conservation 107:147–153.
- Mathews, S., H. Epp, and G. Smith. 2001. "Vegetation classification for the West Kitikmeot / Slave Study Region: Final report to the West Kitikmeot / Slave Study Society".
- Mayor, S. J., J. A. Schaefer, D. C. Schneider, and S. P. Mahoney. 2009. The spatial structure of habitat selection: a caribou's-eye-view. Acta Oegologica 35:253–260.
- Murphy, S. M., and J. A. Curatolo. 1987. Activity budgets and movement rates of caribou encountering pipelines, roads, and traffic in northern Alaska. Canadian Journal of Zoology 65:2483–2490.
- Nellemann, C., and R. D. Cameron. 1998. Cumulative impacts of an evolving oil-field complex on the distribution of calving caribou. Canadian Journal of Zoology 76:1425–1430.
- Nellemann, C., P. Jordhøy, O-G Støen, and O. Strand. 2000. Cumulative impacts of tourist resorts on wild reindeer (*Rangifer tarandus tarandus*) during winter. Arctic 53:9–17.
- Nellemann C., I. Vistnes, and P. J. Strand. 2001. Winter distribution of wild reindeer in relation to power lines, roads, and resorts. Biological Conservation 101:351–360.
- Nellemann, C., P. Jordhøy, I. Vistnes, O. Strand, and A. Newton. 2003. Progressive impacts of piecemeal development. Biological Conservation 113:307–317.
- Nishi, J. S., B. Croft, J. Williams, J. Boulanger, and D. Johnson. 2008. An estimate of breeding females in the Bathurst herd of barren-ground caribou, June 2006. Northwest Territories Department of Environment and Natural Resources, File Report 137. 72 pp.
- Russell, D. E., G. Kofinas and B. Griffith. 2002. Barren–Ground caribou Calving Ground Workshop: Report of Proceedings. Technical Report Series No. 390. Canadian Wildlife Service, Ottawa, Ontario, 39pp.
- Russell, D. E., A. M. Martell, and W. A. C. Nixon. 1993. Range ecology of the Porcupine caribou herd in Canada. Rangifer, Special Issue No. 8:120–125.
- Skogland, T. 1980. Comparative summer feeding strategies of arctic and alpine *Rangifer*. Journal of Animal Ecology 49:81–98.
- Stankowich, T. 2008. Ungulate flight responses to human disturbance: a review and meta-analysis. Biological Conservation 141:2159–2173.

**Bathurst Inlet Port and Road** 

- Sutherland, M. and A. Gunn. 1996. Bathurst calving ground surveys, 1965-1996. Northwest Territories Department of Resources, Wildlife and Economic Development File Report No. 118. 97 pp.
- Vistnes, I., and C. Nellemann. 2008. The matter of spatial and temporal scales: a review of reindeer and caribou response to human activity. Polar Biology 31:399–407.
- Wolfe, S. A., Griffiths, B., and C. A. G. Wolfe. 2000. Response of reindeer and caribou to human activities. Polar Research 19:63–73.

White and Luick 1984; Parker et al., 1990; Chan-McLeod et al., 1994

#### 6. Web References

Hawth's Analysis Tools for ArcGIS, http://www.spatialecology.com/htools, last accessed 2009.

Circumpolar Arctic Vegetation Mapping (CAVM): <a href="http://www.geobotany.uaf.edu">http://www.geobotany.uaf.edu</a>, last accessed 2009

#### APPLICATION FOR PARTICIPANT FUNDING

to the

# NUNAVUT IMPACT REVIEW BOARD / INDIAN AND NORTHERN AFFAIRS CANADA

for participation of

#### NUNAVUMMIUT MAKITAGUNARNINGIT

in the

#### PART 5 REVIEW

of

AREVA RESOURCES CANADA'S PROPOSED KIGGAVIK PROJECT

#### INTRODUCTION

Nunavummiut Makitagunarningit (NM) is an independent, non-governmental organization in Nunavut whose purpose is to promote research, public education, and informed discussion about the cumulative social, environmental and health impacts of uranium development in Nunavut.

NM intends to intervene in the Nunavut Impact Review Board's (NIRB's) Part 5 Review of AREVA Resources Canada Inc.'s Kiggavik Project, a proposed uranium development close to the community of Baker Lake. NM is applying for funding to participate in this Review process.

This funding proposal fulfills the information requirements of NIRB's Participant Funding Guide (March 2010), including applicant information, a description of NM's proposed activities, and the identification of requested funding.

#### APPLICANT INFORMATION

Name and location of project:

AREVA Resources Canada's proposed Kiggavik Project

Please specify which phases and steps of the Review you intend to participate in:

All phases and all steps

Name of applicant:

Nunavummiut Makitagunarningit Box 1554 Iqaluit, NU X0A 0H0 info@makik.ca www.makik.ca (late April)

Sandra Inutiq (Iqaluit), Chair Joan Scottie (Baker Lake), Vice-Chair Jack Hicks (Iqaluit), Secretary/Treasurer

Language of correspondence:

Inuktitut and English

Is your organization incorporated?

No; we are a registered society under Nunavut's Societies Act.

Have you applied or will you be applying for funds from other sources to participate in the review process?

NM has not applied for funds from other sources to participate in the review process. It is possible that we may do so in the future, but we currently have no plans to do so.

#### **GOALS AND MANDATE**

Nunavummiut Makitagunarningit (NM) is an independent, non-governmental organization in Nunavut whose purpose is to promote research, public education, and debate about the cumulative social, environmental and health impacts of uranium development in Nunavut.

Our organization is distinct from other Nunavut-based groups. Incorporated in 2009, NM is a not-for-profit society run entirely on a volunteer basis. We are a public interest group without ties to industry, Inuit organizations or government. We have no direct commercial interest in the proposed Kiggavik Project. Our members are concerned citizens from the Kivalliq and Qikiqtani regions of Nunavut. Our interests reflect those of local community members with concerns about the impacts of uranium development on their environment, health and way of life.

NM believes that NIRB's Part 5 Review process for the proposed Kiggavik Project is an important forum for public education and debate about uranium development issues in Nunavut. Through its work with community members and partnerships with the research community, NM will review the scientific and traditional knowledge components at each stage of the Part 5 Review and bring forward community concerns to the proponent, government, Inuit organizations and the Nunavut Impact Review Board.

During the Review, NM will provide NIRB and other stakeholders with the only local, independent, holistic assessment of AREVA's Environmental Impact Statement. NM will ensure the project is scoped to local interests, and that community concerns are backed by credible expertise and capacity throughout the Review.

NM intends to intervene in the Part 5 Review process with funds secured through this Funding Proposal. Our contributions will be as follows:

- To participate constructively in all stages of the Part 5 Review process by reviewing and evaluating documentation provided by NIRB, the proponent, government and Inuit organizations from a local, critical perspective.
- To provide research and additional information and educational material to local individuals and groups with concerns about uranium development.

#### INTERESTS AND ELIGIBILITY

NM is eligible for participant funding according to the criteria identified in NIRB's Participant Funding Guide (March 2010):

#### 1. Direct, local interest

NM is composed of members with direct, local interests that would be affected if the Kiggavik Project were to proceed. Our members in Baker Lake, some of whom own property in the community, will be directly affected by the proposed project through the effects of development activities including the construction of the mine and associated infrastructure, mining and milling, the storage of wastes, and the transportation of dangerous goods and hazardous materials.

Many of our members are Inuit traditional users of the land AREVA is proposing to develop. We depend on the health and wellbeing of the wildlife and the local ecosystem. If the ecosystem and wildlife are negatively affected by the activities listed above, so too will our health and wellbeing.

#### 2. Community Knowledge and Inuit Qaujimajatuqangit

Many of our members have lived in the Kivalliq region all of their lives and thus possess substantial community and local knowledge, especially pertaining to terrestrial and aquatic ecosystems, social and economic trends, and trends in community health. Our Inuit members hold *Inuit Qaujimajatuqangit* relevant to the project proposal.

#### *3. Provision of expert information*

NM will draw on a wide network of technical experts to independently evaluate the merits of draft NIRB documents and AREVA's Environmental Impact Statement. NM's review will focus on the relevant ecosystemic and socio-economic impacts of the proposed project, as determined through consultation with community groups and concerned individuals.

Relevant impacts for which NM will initially seek expert support include: impacts to wildlife (especially caribou), impacts to human health, impacts to the socio-economic environment, and impacts to Nunavut's regulatory system.

NM's evaluations will be made public and provided to the Nunavut Impact Review Board in support of the Part 5 Review of the Kiggavik Project Proposal.

#### **OBJECTIVES OF PARTICIPATION**

NM will contribute both local and Inuit knowledge and technical expertise to the Review.

Our objectives in the Review are to:

- Discuss local concerns with community members from Baker Lake and other Kivalliq communities and bring them forward in the Review.
- Review and evaluate AREVA's documentation, as well as the documentation
  provided by government and Inuit organizations, in order to assess the quality of
  information provided, including project scope, baseline information, predicted
  impacts, significance of impacts, mitigation measures and monitoring programs.
- Communicate the results of NM's review and evaluation, as well as other relevant information, to the NIRB, community members, AREVA, regulatory authorities and Inuit organizations in a way that is comprehensible and meaningful.
- Participate in public meetings and public hearings as an intervener in the Review Process.

#### DESCRIPTION OF PROPOSED ACTIVITIES

The core activities for which NM is seeking funding include:

#### Phase 1

- Participation in scoping meetings
- Review revised draft scope and draft guidelines
- Preparation and submission of report on revised draft scope and draft guidelines
- Participation in guidelines workshop (including presentation to Board)
- Review of revised draft guidelines and submission of response if required

#### Phase 2

- Review of the draft Environmental Impact Statement (EIS)
- Preparation and submission information requests
- Review information responses and prepare submission on the draft EIS
- Participation in technical meetings and pre-hearing conference (including presentation to Board)

#### Phase 3

- Review of final EIS
- Preparation of submission of report on the final EIS
- Participation in final hearings

Complementary activities for which NM is seeking funding include:

- Communication with local community members (e.g. meetings, advertising, etc.)
- Preparation and provision of communication material
- Travel to/from Baker Lake

Through the activities listed above, NM will provide NIRB and other stakeholders with the only local, independent, holistic assessment of AREVA's Environmental Impact Statement (EIS). NM will ensure the project is scoped to local interests, and that community concerns are backed by credible expertise and capacity throughout the Review.

#### **CAPACITY**

NM has been in existence since 2009. A number of its members participated in the first environmental assessment of the Kiggavik Project under FEARO in the 1980s. The NM Board of Directors are community members from Baker Lake and Iqaluit. Our combined expertise includes:

- local *Inuit Qaujimajatuqangit* for traditional activities, historical and contemporary land use, wildlife and other ecosystem components
- legal knowledge including constitutional, administrative and environmental law
- Nunavut-specific socio-economic and statistical expertise
- historical knowledge of the FEARO review of the Kiggavik Project in the 1980s

NM works in partnership with a network of private experts and academics with expertise in the following areas:

- scientific expertise regarding caribou, permafrost engineering, and public health
- public policy expertise in uranium mine regulation

NM's capacity comes from the skills and commitment of its Board of Directors and other individual contributors. Many of our Board members have contributed to past reviews and screenings by the Nunavut Impact Review Board, including for the Meadowbank Project and the Garry Lake Project. Participation in the Part 5 Review of the Kiggavik Project confirms our commitment to environmental protection and socially responsible development.

Since 2009 we have demonstrated our ability to meet NIRB deadlines and contribute local, independent and holistic perspectives to the screening and review of the Kiggavik Project. We intend to continue this work with the funding provided through Indian and Northern Affairs Canada's Participant Funding Program.

#### ELIGIBLE ACTIVITIES AND EXPENSES

Because of the numerous unknowns concerning information requirements, meetings and the like, and the possibility of delays resulting in a lengthening of the process beyond the timelines set forth by NIRB on March 12, NM finds that it is difficult at this time to anticipate total costs for the full review process. NM therefore respectfully requests that NIRB consider a participant funding re-evaluation opportunity at the time of the Pre-Hearing Conference. This will ensure that funding recipients are able to carry on with the review process following the submission of a final EIS.

Nunavummiut Makitagunarningit is requesting funding in the amount of \$748,675.

Expense Category	Review-long	Phase 1	Phase 2	Phase 3	Total
Local collection / distribution of information		25,000	25,000	25,000	75,000
Professional fees (excluding legal fees)		50,000	100,000	100,000	250,000
Travel expenses		22,475	22,475	22,475	67,425
Rental of office space / meetings rooms		2,500	2,500	2,500	7,500
Staff salaries		60,000	80,000	60,000	200,000
Legal fees	100,000				100,000
General media advertising / promotion		5,000	5,000	5,000	15,000
Purchase of informational material	5,000				5,000
Other (specify)					
Translation (250 pages * \$75 per page)	18,750				18,750
Communications, photocopying, etc.	10,000				10,000
Total	133,750	164,975	234,975	214,975	748,675

#### Local collection / distribution of information

NM will periodically hold community meetings in Baker Lake (and possibly selected other communities as well) to discuss local concerns and bring them forward in the Review. These meetings, and the lead-up to them, will result in wider distribution and understanding of documents prepared by NIRB and by other interveners.

NM members in Baker Lake have decades of experience in organizing simple but productive community meetings.

#### Professional fees (excluding legal fees)

NM will need to draw on a wide network of technical experts to independently evaluate the merits of draft NIRB documents and later AREVA's Environmental Impact Statement. Expert advice or assistance will be required on a range of environmental, technical and social issues. At a minimum, NM will need to engage experts in impacts to wildlife (especially caribou, although we are aware that the Baker Lake Hunters and Trappers Organization will be focusing their intervention on caribou-specific matters), impacts to human health, impacts to the socio-economic environment, and impacts to Nunavut's regulatory system.

Recognizing that many residents of Baker Lake (and other Kivalliq communities) possess substantial community and local knowledge, especially pertaining to terrestrial and aquatic ecosystems, social and economic trends, and trends in community health, NM will pay honoraria to community experts who have been asked to share their *Inuit Qaujimajatuqangit* relevant to the review.

The Participant Funding Guide requests "Supporting information ... for each expert..." NM does not feel that it is possible at this stage in the Review process to identify "each expert" we may require the services of. We realize that we will be expected to spend intervener funding – taxpayer's money – wisely and in support of the Part 5 Review, and we intend to do precisely that.

Our 'Professional fees' line item is therefore an estimate based on the overall volume of expert advice or assistance we expect to require through the different Phases of the Review.

#### Travel expenses

NM's proposed budget assumes that there will be one meeting (or two contiguous meetings) per Phase, all to be held in Baker Lake.

The budget assumes that the NM Co-ordinator and four consultants will attend each meeting. Due to the range of issues likely to be addressed throughout the Review and the level of expertise we intend to bring to our participation, no one resource person can possibly comment on all the subjects being discussed.

The travel costs to be incurred by the Co-ordinator and consultants are all included in the 'Travel expenses' line item.

The Participant Funding Guide states that "Details should be provided regarding travel mode, accommodations and duration." NM expects that all travel will take place by scheduled airlines; that the Co-ordinator and consultants will stay in one of the hotels in Baker Lake; and that they will arrive in Baker Lake in time to meet with NM members in the community before the NIRB meeting and leave after having debriefed with NM members in the community afterwards. For budgeting purposes we have assumed one one-week trip per Phase of the Review.

Travel has been costed out on the basis of airfares of \$1,815 Iqaluit/Baker Lake return and \$2,540 Toronto/Baker Lake return, and of a 'room and full board' rate of \$300 per day in Baker Lake.

#### Rental of office space / meetings rooms

NM will require a minimal amount of office space, meeting rooms and use of office equipment at various points in the Review.

#### Staff salaries

NM will require a full-time Co-ordinator to manage its participation in the Review, someone capable of conducting and managing research on a very wide range of issues as well the usual administrative tasks. We estimate that a salary of \$10,000 per month (with no additional benefits) is required to attract a resident of Nunavut with the requisite skill set and experience.

The Participant Funding Guide requests "a brief explanation of the individual's expertise and the direct relevance of this expertise to the Review". NM does not feel that it is appropriate for NIRB to judge whoever we may choose to hire. In this application we have laid out an ambitious workplan, and it is *our* responsibility to hire a Co-ordinator capable of managing the project.

#### Legal fees

NM will require expert legal advice and assistance directly related to our participation in the Review – on procedural matters, a range of regulatory matters, and possibly other issues as well.

As noted in the opening paragraph of this section of our application, because of the numerous unknowns concerning how (and for how long) the Review process will take place it is difficult to estimate the amount and nature of the expert legal advice and assistance that NM will require. Our 'Legal fees' line item is therefore an estimate

based on the overall volume of expert legal advice and assistance we expect to require over the course of the Review.

General media advertising / promotion

NM will require a limited amount of general media advertising / promotion for its activities during the course of the Review.

Purchase of informational material

NM will need to purchase a limited amount of informational material (e.g. maps, documents and reports) during the course of the Review.

Other (specify)

*Translation (250 pages \* \$75 per page)* 

Documents prepared by NM will be translated into a Baker Lake dialect by a translator experienced in the required terminology.

Communications, photocopying, etc.

Telephone, fax, photocopying, etc.

## Participant Funding Program

### **Application for Funding: Certification Form**

#### **Certification and Consent:**

I/we hereby certify that the information I/we have provided in this application is accurate to the best of my/our knowledge. In the event that a participant funding award is to be made based on this application, I/we agree that no funding will be payable unless I/we sign the INAC standard Contribution Agreement.

I/we hereby consent to the NIRB providing a copy of this Application Form and of the aforementioned Contribution Agreement (once signed by me/us and by INAC) to any person that the NIRB deems appropriate in the circumstances. I/we further consent to the NIRB making copies of any written submissions during the Review process, by me/us or by the corporation, organization, group or association that I/we represent and to use those copies for purposes related to the Review. The information collected will be subject to the Access to Information Act.

SANDON INUTIO

Title

Authorized signature

April 12,2010



#### PARTICIPANT FUNDING APPLICATION FORM

NIRB Use Only	
Date Received:	
File Number:	

#### Participant Funding: Application for Funding

Please refer to "How to Complete Your Application Form" of the guide entitled "Participant Funding" when completing this application.

#### **Step 1: Applicant Information**

Name and location of project:

NIRB's Part 5 Review of AREVA Resources Canada Inc's "Kiggavik" project proposal (NIRB File No. 09MN003).

The Kiggavik Uranium Mine Project is located in the Kivalliq region of Nunavut, approximately 80 km west of the community of Baker Lake and 60 km east of west of Beverly Caribou calving grounds.

Please specify which phases and steps of the Review you intend to participate in:

The Athabasca Denesuline will participate, as resources allow, in all three phases of the Part 5 Review of the Kiggavik project indicated below:

Phase 1: Scoping and Guideline Development

Phase 2: Draft EIS, Technical Meeting and PHC

Phase 3: Final EIS and Final Hearing

Name of applicant (individual or organization):

Athabasca Denesuline [Fond du Lac Denesuline Nation, Black Lake Denesuline Nation, Hatchet Lake Denesuline Nation] as represented by the Prince Albert Grand Council (PAGC).

Web site address:

http://www.pagc.sk.ca

Legal name of applicant (if different): PADC Management Company Ltd.

Mailing address:
Prince Albert Grand Council
2300 9<sup>th</sup> Ave West
P.O. Box 2350
Prince Albert, SK S6V 6Z1

City / Town: Prince Albert

Province: Saskatchewan
Postal Code: S6V 6Z1 Telephone number: 306 922 7612
Fax number: 306-763-2973
E-mail address: tgiroux@pagc.sk.ca or p.brook@sasktel.net
If the application is for an individual or a law firm, indicate on whose behalf you are submitting this application. $N/A$
Applying on behalf of him/herself or law firmN/A
Applying on behalf of an unincorporated entity_N/A_
Name of unincorporated entity: N/A
(Note: Applications will not be accepted from unincorporated entities in their own name.)
Name and title of contact person for corporation/ organization/ group/ association: If you represent an entity (incorporated or otherwise) supporting documentation, endorsing you as the entity's representation must be attached to this application.
Tina Giroux B.Sc, M.Sc Biologist and Regulatory Officer - Athabasca Land Use Office Prince Albert Grand Council Box 2350 2300 9th Ave West Prince Albert, SK S6V 6Z1
Phone: 306 922 7612 Fax: 306 763 2973 Cell: 306 930 7776
Language of correspondence  English_X_ French  Telephone number (if different):  Fax number (if different):  Is your organization incorporated? YesX_ No  Federal No.: Provincial No.: 570918 (Saskatchewan Corporation Branch, Sask. Justice)  Business number (Canada Customs and Revenue Agency): 107810905RT0001

GST/HST rebate number: _	
GST/HST rebate %:	100% Band empowered entity
Have you applied or will be a process? No_X_ Yes	applying for funds from other sources to participate in the review
If yes, please specify how much	and the source.

Describe your or your organization's major goals and mandate.

The Prince Albert Grand Council (PAGC) is a First Nations Government representing twelve (12) First Nations from five (5) tribal groups, including the three (3) Athabasca Denesuline First Nations of Find du Lac, Black Lake and Hatchet Lake. The Athabasca Denesuline are signatories to Treaty #8 and #10 with Canada and are currently in negotiations with Canada, the NTI and KIA with respect to the negotiation of a comprehensive settlement agreement covering traditional territory in Nunavut and the South Slave region of the NWT.

The PAGC was established twenty-five (25) years ago, with a mandate to defend and implement member First Nation aboriginal and treaty rights and provide a comprehensive range of public services to its member communities (24 communities with a total population in excess of 40,000). PAGC services include, land and resource use planning, wildlife protection and management, environmental monitoring and traditional sue and knowledge research.

The forty-five hundred (4,500) Athabasca Denesuline (AD) members live in the three (3) major onreserve communities of Fond du Lac, Black Lake and Hatchet Lake. Also, aboriginal people form the majority of the population in the provincial communities (4) Wollaston Lake, Stony Rapids, Camsell Portage and Uranium City. Aboriginal people constitute 95% on the Athabasca region population (5,000).

The traditional territory of the Athabasca Denesuline includes areas of Northern Saskatchewan, south-eastern Northwest Territories and Southern Nunavut. The Athabasca Denesuline have, since time immemorial, used and occupied lands that correspond to the range of the Beverly-Qamanirjuaq caribou herds. Our relationship with these caribou herds spans thousands of years. We, the Athabasca Denesuline have a vision of maintaining our cultural identity and strengthening our communities through the designation of protected areas, and in the sustainable development of the land and resources.

Describe your interest in the Review.

The caribou and their habitats are very important to us, the Athabasca Denesuline. Since the yearly migration of the Beverly-Qamiriirjuaq caribou herds is integral to the Athabasca Denesuline economic, social and cultural identity, any potential disturbance to the caribou is potential risk to the Athabasca

The Athabasca Denesuline have concerns about the development including its overlap with important wildlife habitat and special ecological places. The AD are currently and actively negotiating a resource harvesting agreement with the Governments of Canada and Nunavut.

Denesuline identity.

As noted in its report, the Nuvavut Impact Review Board (NIRB) has determined that because of the size and nature of the Kiggavik Uranium Mine Project Proposal, it may have significant adverse socioeconomic effects on the ecosystem and on Northerners; will cause public concern; and involves technological innovations for which the effects are unknown, it is important that the Athabasca Denesuline participate in the review of the Kiggavik Uranium Mine Project.

#### **Step 2: Description of Proposed Activities**

Describe your proposed contribution to the Review, including:

• the objectives of your participation;

Our main goal is to ensure that Athabasca Denesuline Aboriginal and Treaty Rights are protected, the environment (especially the caribou) is protected and that development is approached in a sustainable manner.

• your proposed activities for which you are seeking funding; and

Our participation will focus on:

- Reviewing the project file;
- · Participating in technical meetings and hearing; and
- Making a presentation(s) of behalf of the Athabasca Denesuline.

More specifically we will participate, as resources allow, in the following activities:

Phase 1: Scoping and Guideline Development

- Comments on Revised Draft Scope of project
- Comments on Proposal and Draft EIS Guidelines
- Comments on Revised EIS Guidelines
- Participation on EIS Guidelines development workshop

#### Phase 2: Draft EIS, Technical Meeting and PHC

- Preparation and submission of Information Requests (IR)
- Participation in technical meeting
- Participation in Preliminary Hearing (PHC)

#### Phase 3: Final EIS and Final Hearing

- Technical Review of EIS
- Submission of comments to NIRB
- Participation in Final Hearing
- how these proposed objectives and activities may contribute to the review's understanding of the anticipated effects of the project.

Our participation will help ensure that Athabasca Denesuline Aboriginal and Treaty Rights are understood, that our relationship with the BQ caribou herds is understood and that development is approached in a sustainable manner.

Identify your capacity to carry out the proposed activities.

The Athabasca Lands Office of PAGC provides technical services to the Athabasca communities on regional land and resource matters. We continue to offer support by reviewing various development proposals including those that may trigger an environmental assessment review.

The Athabasca Denesuline aims to be the leader in the sustainable development of the land and resources within our traditional territory. As such, we have qualified human resources engaged in a number of land use and protected area planning and management initiatives. These individuals are supported by a diverse technical team.

(Describe relevant experience, expertise and skills you or your organization have that will help you to carry out your proposed activities.)

We have three avenues of experience that will help us contribute including:

1. The Athabasca Denesuline Negotiations that are clarifying our rights north of the 60th parallel.

The Athabasca Denesuline negotiations with the federal government, the government of Nunavut and with the Inuit have allowed us to develop a comprehensive understanding of the NLCA, the Nunavut regulatory regime and environmental management in the territory.

2. Developing land use visions and plans for our traditional territories.

The Athabasca Denesuline Northern Land Use Vision is to manage the use of the land and resources of the Athabasca in an integrated and environmentally sound manner to ensure ecological, economic, social, cultural and spiritual benefits for present and future generations. Our Vision is the result of extensive review and consultation in our communities to ensure public input and direction

3. Participation in numerous development referral reviews and assessments.

We have participated in regulatory reviews in the NWT, Nunavut and Saskatchewan.

Describe why you believe your participation will bring an important and distinct perspective to the Review.

Our participation will contribute positively to the review of the Kiggavik Uranium Mine Project because we have:

- A clear land use vision that that aims to minimize the negative impacts from development and increase the benefit to people in the region;
- A clear review process protocol for developments:
- Specialized resources in land use planning & management, land negotiations;
- A unique relationship with the BQ Caribou; and
- Our situation is referenced in Article 40 of the NLCA.

Have you or your organization made an effort to cooperate with other individuals or organizations in preparing a funding application?

No \_\_X\_\_ AD maintains an active collaboration with the BQCMB on issues related to the protection of calving grounds, migration routes and winter ranges, harvest monitoring and herd health and sustainability.

Yes \_\_\_\_

If yes, please specify name of individual / organization

How are the proposed activities incremental to your ongoing business?

Participation will provide an opportunity for the AD to expand and develop our environmental impact assessment and regulatory experience in Nunavut while allowing us to advocate for the protection of caribou and the prevention/mitigation of risks to caribou, particularly in the calving and pre/post calving areas.

#### Step 3: Funding Requested

Please summarize your request for funding of eligible expenses, using the following table (see part 2 of the guide entitled *Participant Funding* for information on each expense category):

#### **Priority Expense Category Funding Requested**

Local collection / distribution of information	\$6,400
Professional fees (excluding legal fees)	\$8,400
Travel expenses	\$19,750
Office supplies	\$
Rental of office space / meeting rooms	\$
Staff salaries	<b>\$17,550</b>
Legal fees	\$ 6,000
General media advertising / promotion	\$
Purchase of information material	\$
Other (specify)	\$
TOTAL funding requested	\$58,100

With respect to each expense, please provide additional information to support your request. Use additional sheets if needed.

Local collection / distribution of information:

4 trips by the Project Coordinator (Wildlife Biologist, Tina Giroux) the 7 First Nation and provincial communities during the project period:

- 1) Initial information workshops (overview of EIA/EIS processes and identification of harvester and TEK informants);
- 2) Scoping Review workshops to assess and recommend revisions to scope of project. Begin TEK information gathering in communities
- 3) Initial EIS Review workshops to review and identify recommendations and comments for Preliminary Hearing;
- 4) EIS review workshop to review results of Preliminary Hearing and identify recommendations and comments for Final Hearing.

Community Workshop expenses at 4 locations (Camsell Portage/Uranium City, Fond du Lac, Black Lake/Stony Rapids and Hatchet Lake/Wollaston Lake) for each of the 4 planned regional trips by the Project Coordinator.

Expenses per community workshop: \$250 (hall rental and refreshments) + \$150 (reproduction of materials, recording discs, maps posters) = \$500/ workshop/meeting

Community Workshop expenses:

4 (workshops/regional trip) x 4 regional trips X \$400/workshop = \$6,400

Professional fees (excluding legal fees):

Specialist Consultants 9 days @ \$900/day = \$8,400

3 days of technical consultation with during the three (3) Phases of the Project

#### Travel expenses:

- 1) Project Coordinator attendance at three (3) scheduled meetings/hearings in Baker Lake:
- 3 return trips to Baker Lake from Prince Albert/Saskatoon: \$2650 x 3 = \$7,950

Accommodation and Meals: (3trips x 3days/trip x 300/day = \$2,700

Baker Lake Travel Total: \$10,650

2) Regional Consultation Trips (meetings in 4 locations per trip)

Scheduled airfare: 4 regional trips x 1,700/trip =

\$5,100

Accommodations/meals: 4 days/trip x \$250/day x 4 trips =

**\$4,000** 

Total Regional Consultation Travel \$9,100

Total Travel: \$19,750

Office supplies: N/A

Rental of office space / meeting rooms: included in collection/information costs

#### Staff salaries:

The Wildlife Biologist position is partially funded through a joint arrangement with the GNWT (Env.) and the Province of Saskatchewan (Environment Ministry) for 8 months. The remaining annual position costs are resourced from intervention funding such as this NIRB process on a project basis.

Salary/benefits: 6.5 pay periods (PP) x 2,700/pp = 17,550

#### Legal fees:

Three days of legal consultation over the 3 Phases of the Project re: environmental assessment and mineral development legislation, protection of treaty and aboriginal rights and Crown duty to consult.

General media advertising / promotion: N/A

Purchase of information material: included in collection/information costs

Other:

#### How did you hear about the Participant Funding Program for the Review?

NIRB	_X
Federal government	
Territorial government	
Newspaper	_X_
Email to your organization	
Word of mouth	
Other: please specify	

## Participant Funding Program

# **Application for Funding: Certification Form**

### **Certification and Consent:**

I/we hereby certify that the information I/we have provided in this application is accurate to the best of my/our knowledge. In the event that a participant funding award is to be made based on this application, I/we agree that no funding will be payable unless I/we sign the INAC standard Contribution Agreement.

I/we hereby consent to the NIRB providing a copy of this Application Form and of the aforementioned Contribution Agreement (once signed by me/us and by INAC) to any person that the NIRB deems appropriate in the circumstances. I/we further consent to the NIRB making copies of any written submissions during the Review process, by me/us or by the corporation, organization, group or association that I/we represent and to use those copies for purposes related to the Review. The information collected will be subject to the Access to Information Act.

Peter Brook\_\_\_\_\_\_

PAGC Management Consultant\_\_\_\_\_

Title

\_\_\_\_\_\_April 13, 2010\_\_\_\_\_

Authorized signature



# Pኖʹር-ፕ ΔΔΔ° ხጋጐቴ∩ሶ፡ Kivalliq Inuit Association

∩∩%⊳ァヘ∿レ/P.O. Box 340, ドՐ゚゚๙゚ჾ゚ Rankin Inlet, ம௳>゚ Nunavut X0C 0G0

To:	Sophia Granchinho	From: Stephen Hartman
Faoc	867-983-2594	Pages: 13
Phone	e	Date: 4/13/2010
Re:	Funding application	CC:
□ Urg	ent X For Review	☐ Please Comment ☐ Please Reply ☐ Please Recycle
Hi So <sub>l</sub>	phia	
	ned is our late funding a ork server etc.	application. I appoligize but we had a problem with our office
l hope	e we still qualify.	
Steph	en	APR 13 2010 APR
		RECEIVED

The information accompanying this transmission contains confidential information intended for a specific purpose. The information is private and is legally protected by law. If you are not the intended recipient you are hereby notified that any disclosure, copying, distribution or the taking of any action in reference to the contents of the telecopy information is strictly prohibited. If you receive this communication in error please notify us immediately by telephone and return the original to us by regular mail.

#### Al Sexton

From:

Al Sexton [as.geovector@belinet.ca]

Sent:

April-13-10 8:47 AM

To:

'sgranchinho@nlrb.ca'

Cc:

Luis Manzo (dirlands@kivalliqinuit.ca); Steve Hartman (shartman@kivalliqinuit.ca)

Subject:

Participant Funding Application

Attachments:

100311-09MN003-Participant Funding Application Form-OT2E.doc;

KIA\_NIRB\_Funding\_Budget.xis





100311-09MNDD3-PKIA\_NIRB\_Funding articipant Fun... \_Budgetxls (7...

Dear Ms Granchinho

Attached is a Participant Funding Application for AREVA Resources Canada Inc.'s Kiggavik Project (Nirb File No. 09MN003). There was an e-mail snafu between the KTA office and my office yesterday which delayed this information from arriving on April 12. I only became aware of this error this morning. I hope this application can still be submitted.

I have also faxed the information to your attention.

Recards

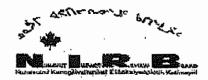
Alan Sexton

GeoVector Management Inc. Alan Sexton, P.Geo. 10 Green Street Suite 312 Ottawa ON K2J 326

tel: 613-843-8109 fax: 613-843-8110

867-983-2594

PAGE 02/13



#### PARTICIPANT FUNDING APPLICATION FORM

NIRB Use Only Date Received: File Number:
Participant Funding: Application for Funding
Please refer to 'How to Complete Your Application Form" of the guide entitled "Participant Funding" when completing this application.
Step 1: Applicant Information
Name and location of project:
Kiggavik Project The Kiggavik Project is a proposed uranium ore mining and milling operation located in the Kivalliq region of Nunavut approximately 80 km west of the community of Baker Lake.
Please specify which phases and steps of the Review you intend to participate in:  Phase 1: Scoping and Guideline Development  Phase 2: Draft EIS, Technical Meeting and PHC  Phase 3:Final EIS and Final Hearing
Name of applicant (individual or organization):
Kivalliq Louit Association
Web site address:  www.kivalliqinuit.ca
Legal name of applicant (if different):
Kivalliq Inuit Association
Mailing address: PO Box 340
City / Town: Rankin Inlet
Province: Nunavut
Participant Funding Application Form Number of Review Board

Numerat Impact Review Board

Postal	Code:	X0C	0G0
--------	-------	-----	-----

Telephone number: (867) 645-5733

Fax number: (867) 645-3855

E-mail address: Imanzo@kivalligipuit.ca

If the application is for an individual or a law firm, indicate on whose behalf you are submitting this application.

Applying on behalf of him/herself or law firm \_\_\_\_\_

Applying on behalf of an unincorporated entity\_\_\_\_

Name of unincorporated entity:

(Note: Applications will not be accepted from unincorporated entities in their own name.)

Name and title of contact person for corporation/organization/group/association: If you represent an entity (incorporated or otherwise) supporting documentation, endorsing you as the entity's representation must be attached to this application.

Language of correspondence

English 🗵

French\_

Telephone number (if different):

Fax number (if different):

Is your organization incorporated? Yes\_\_\_\_No\_\_\_\_

Federal No.: \_\_\_\_ Provincial No.: \_\_\_\_

Business number (Canada Customs and Revenue Agency):

GST/HST rebate number:

GST/HST tebate %:

Have you applied or will be applying for funds from other sources to participate in the review process? No Yes\_\_\_\_

If yes, please specify how much and the source.

Describe your or your organization's major goals and mandate.

Kivalliq Inuit Association (KIA) is a "Designated Inuit Organization" (DIO), which represents the interests of all Inuit living in the Kivalliq Region, acts as a lobbying group, administers and monitors certain provisions of the Nunavut Final Agreement in the Kivalliq Region.

Pasticipant Funding Application Form

Nunavut Impact Review Board

KIA as a Designated Inuit Organization is mandated to deal with the Inuit Owned Land Management issues within the Kivalliq region. Through its Lands Department the Kivalliq Inuit Association administers the use of the surface lands, in order to meet the legal requirements and obligations contained within the Nunavut Land Claim Agreement and other legal statutes and instruments, regarding to surface land management.

#### Goals:

The aim of Inuit land management is to administer Inuit Owned Lands on behalf, and for the benefit, of all Inuit so as to promote the principles of self-reliance and the cultural and social well being of Inuit. The primary purpose of Inuit Owned Land shall be to provide Inuit with rights in land that promote economic self-sufficiency of Inuit through time, in a manner consistent with Inuit social and cultural needs and aspirations. In order to benefit Inuit now and into the future, Inuit Owned Lands must be managed in such a way as to sustain and enhance the value of these lands.

Describe your interest in the Review.

The KIA mission is to represent, in a fair and democratic manner, Inuit of the Kivalliq Region in the development, protection, administration and advancement of their rights and benefits as an aboriginal people; as well as to promote their economic, social, political and cultural well being through succeeding generations.

#### Step 2: Description of Proposed Activities

Describe your proposed contribution to the Review, including:

The objectives of KIA participation:

KIA as a Designated Inuit Organization is mandated to deal with the Inuit Owned Land Management issues within the Kivalliq region. Therefore, the KIA's objective is to ensure that the project:

- 1) meets the highest standards for project design, mitigation, and monitoring.
- Maximizes hiring, training, education, workforce management, local procurement and community investment initiatives for the Kivalliq Region.
- Minimizes any potential negative social and environmental effects.

The proposed activities KIA is seeking funding for:

The KIA is seeking funding for Phases 1, 2 and 3 of the NIRB Review Process. This will involve the review of all the available information for each phase by KIA staff, independent mining and exploration consultants GeoVector Management Inc. and independent environmental and socio-economic consultants EEM Ltd. 3.

How these proposed objectives and activities may contribute to the review's understanding of the anticipated effects of the project.

This combined review and participation of the KIA, GeoVector and EEM team in Phases 1, 2 and 3 will contribute in the understanding of the anticipated effects of the project by:

- determining the overall effects of the project,
- 2) identifying any problematic areas of the project, and
- 3) providing direction to the review process on how to better address problematic areas or any special areas of concern.

Identify your capacity to carry out the proposed activities.

Through its Lands Department the Kivalliq Inuit Association has participated in the NIRB review of the Meadowbank Project and will bring the experiences gained here to the AREVA review. In addition, the KIA will use the mining and exploration expertise of GeoVector Management Inc. and the environmental and socio-economic expertise of EEM Ltd. to complete an independent technical review of all the available information for Phases 1, 2 and 3. This independent review will

- 1) determine the overall effects of the project,
- 2) identify any problematic areas of the project, and
- 3) provide direction to KIA staff on how to better address problematic areas or any special areas of concem.

Describe why you believe your participation will bring an important and distinct perspective to the Review.

KIA as a Designated Inuit Organization is mandated to deal with the Inuit Owned Land Management issues within the Kivalliq tegion. Therefore, the KIA's participation will explicitly acknowledge the centrality of Traditional Inuit Knowledge (IQ) to project design, mitigation, and monitoring; the importance of community and regulatory consultation throughout the development of the Project's Guidelines Development, Draft EIS and Final EIS. As well as the range of potential hiring, training, education, workforce management, local procurement and community investment initiatives that will be required to share the positive economic benefits of this mine development, while addressing the any potential negative social and environmental effects.

Have you or your organization made an effort to cooperate with other individuals or organizations in preparing a funding application?

Νo Yes

If yes, please specify name of individual / organization

How are the proposed activities incremental to your ongoing business?

KIA as a Designated Inuit Organization is mandated to deal with the Inuit Owned Land Management issues within the Kivalliq region. Through its Lands Department the Kivalliq Lauit Association administers the use of the surface lands, in order to meet the legal requirements and obligations contained within the Nunavut Land Claim Agreement and other legal statutes and instruments, regarding to surface land management.

Participant Funding Application Form

Nunavut Impact Review Board

#### Step 3: Funding Requested

Please summarize your request for funding of eligible expenses, using the following table (see part 2 of the guide entitled *Participant Funding* for information on each expense category):

#### Priority Expense Category Funding Requested

The values entered here are for Phase 1 2 and 3 combined. Please see the attached spreadsheet for a detailed breakdown for each phase.

Local collection / distribution of information	\$	2,700.00
Professional fees (excluding legal fees)	\$2	38,500.00
Travel expenses	\$1	59,180.00
Office supplies	\$	1,500.00
Rental of office space / meeting rooms	\$	4,500.00
Staff salaries	\$	0.00
Legal fees	\$	25,200.00
General media advertising / promotion	\$	0.00
Purchase of information material	\$	0.00
Other (specify)	\$	0.00
TOTAL funding requested	\$4	31,580.00

With respect to each expense, please provide additional information to support your request. Use additional sheets if needed.

Picase see the attached spreadsheet for a detailed breakdown for each expense for each of Phase 1, 2 and 3.

Local collection / distribution of information:

Professional fees (excluding legal fees):

Travel expenses:

Office supplies:

Rental of office space / meeting rooms:

Staff salaries:

Legal fees:

General media advertising / promotion:

Participant Funding Application Form

Numerout Impact Review Board

Purchase of information material:

Other

How did you hear about the Participant Funding Program for the Review?

**CEDVECTOR** 

Panicipant l'unding Application f'orm

Numerat Impact Review Board

04/13/5070 06:13 FEF38438170

## **Application for Funding: Certification Form**

#### Certification and Consent:

I'we hereby sertify that the information I/we have provided in this application is accurate to the best of my/our knowledge. In the event that a participant funding award is to be made based on this application, I/we agree that no funding will be payable unless I/we sign the INAC standard Contribution Agreement.

I/we hereby consent to the NIRB providing a copy of this Application Form and of the aforementioned Contribution Agreement (once signed by me/us and by INAC) to any person that the NIRB deems appropriate in the circumstances. I/we further consent to the NIRB multing capital of any written submissions during the Review process, by me/us or by the corporation, organization, group or association that I/we represent and to use those copies for purposes related to the Review. The information collected will be subject to the Access to Information Acc.

Nume

سريد

APRIL 12/2010

Participant Funding Application Form

Nurssynt Impact Roview Board

04/13/2019 00:13 TP138438710

KIVALLIQ INUIT ASSOCIATION
NIRB PART 5 REVIEW
PARTICIPANT FUNDING APPLICATION BUDGET
POR
AREVA Resources Canada Inc.'s "Kiggavik" Project

Gost Category	Phase 1	Phase 2	Phase 3	TOTAL
Local collection / distribution of information	006	006	006	
Professional fees	58750	00396	83250	
Travel Expanses	37380	00609	60300	159180
Office Supplies	909	9009	200	1500
Rental of office space / Meeting rooms	1500	1500	1500	4500
KIA Staff Salaries	0	0	0	0
Legal fees	8400	8400	8400	25200
General media advertising / promotion	a	0	0	0
Purchase of information material	0	0	0	0
Other (specify)	0	o	0	0
TOTAL funding request	107430	168700	155450	431680

8676453855

KIVALLIQ INUIT ASSOCIATION - NIRB PART 5 REVIEW PARTICIPANT FUNDING APPLICATION BUDGET AREVA Resources Canada Inc.'s

AREVA Resources Canada Inc.'s "Kiggavik" Project

Phase 1 - Cost Category	Days	Unit Cost	Total Cost
Local collection / distribution of information	2	450	006
Professional fees (see table below)			38750
Travel Expenses (see table helow)			37380
Office Supplies			500
Rental of office space / Meeting rooms	8	009	1500
KIA Staff Salaries	0	Đ	0
Legal fees	7	1200	8460
General media advertising / promotion	0	0	0
Purchase of information material	0	0	O
Olher (specify)	0	0	0
TOTAL funding request	_		107430

Professional fees	Days	Unit Cost	Total Cost
GeoVector Management Inc.	15	950	12750
EEM	20	1250	
EEM	15	1400	21000
		TOTAL	58750

Travel Budget (EIS Guidelines Workshop)	Airfare	Hotel (150/day)	Meals (120 day)	Per Diem	Total Cost
KIA Lawyer for 3 days	3000	420	360	3600	7410
GeoVector (1 representative for 3 days)	3000	420	098	2550	6360
EEM (2 representatives for 3 days)	0009	006	720	7950	15570
KIA Staff (4 staff for 3 days)	4800	1800	1440	0	8040
TOTALS	16800	3600	2880	14100	37380

8676453855

KIVALLIQ INUIT ASSOCIATION - NIRB PART 5 REVIEW PARTICIPANT FUNDING APPLICATION BUDGET AREVA Resources Canada Inc.'s "Kiggavik" Project

Phase 2 - Cost Category	Days	Unit Cost	Total Cost
Local collection / distribution of information	2	450	900
Professional fees (see table below)			96500
Travel Expenses (see lable below)			00609
Office Supplies			500
Rental of office space / Meeting rooms	3	500	1500
KIA Staff Salaries	0	O	0
Legal fees	7	1200	8400
General media advertising / promotion	0	0	0
Purchase of information material	0	ū	0
Other (specify)	0	0	æ
TOTAL funding request			168700

Professional fees	Days	Unit Cost	Total Cost
GeoVector Management Inc.	20	098	
EEW	30	1250	37500
EEM	30	1400	
		TOTAL	00296

Travel Budget (Technical Meeting)	Airfare	Hotel (150/day)	Meats (120 day)	Per Diem	Total Cost
KIA Lawyer for 5 days	3000	750	009	4250	9600
GeoVector (1 representative for 5 days)	3000	750	009	2550	0069
EEM (2 representatives for 5 days)	9009	1500	1200	26500	
KIA Staff (4 staff for 5 days)	4800	3000	2400	0	10200
TOTALS	16800	0009	4800	33300	60900

8676453855

KIVALLIQ INUIT ASSOCIATION - NIRB PART 5 REVIEW PARTICIPANT FUNDING APPLICATION BUDGET AREVA Resources Carada Inc.'s "Kiggavik" Project

Phase 3 - Cost Category	Days	Unit Cost	Total Cost
Local collection / distribution of information	2	450	006
Professional fees (see table below)			83250
Travel Expenses (see table below)			00609
Office Supplies			009
Rental of office space / Meeting rooms	c	009	1600
KIA Staff Salaries	0	0	0
Legal fees	7	1200	8078
General media advertising / promotion	0	0	0
Purchase of information material	0	0	0
Other (specify)	0	0	0
TOTAL funding request			155450

,			
Professional fees	Days	<b>Unit Cost</b>	Total Cost
GeoVector Management Inc.	20	098	
EEM	52	1250	
EEM	25	1400	35000
		TOTAL	B3250

Travel Budget (Technical Meeting)	Airfare	Hotel (150/day)	Meals (120 day)	Per	Diem:	Per Diem Total Cost
KIA Lawyer for 5 days	3000	092		600	4250	8600
Geovector (1 representative for 5 days)	3000	052		600	2550	0969
EEM (2 representatives for 5 days)	0009	1500		1200	26500	35200
KIA Staff (4 staff for 5 days)	4800	3000		2400	0	10200
TOTALS	16800	0009		4800	33300	



April 12, 2010

Environmental Administration Nunavut Impact Review Board P.O Box 1360 Cambridge Bay, Nunavut X0B 0C0

Sent by email (<u>info@nirb.ca</u>; <u>rbarry@nirb.ca</u>; <u>sgranchinho@nirb.ca</u>)

**Re:** Intervenor Funding for the Environmental Assessment Review of the Kiggavik Uranium Mine Project Proposal.

Dear Mr. Barry,

The Baker Lake Hunters and Trappers Organization (HTO) appreciates the opportunity to submit the attached Participant Funding application and budget in support of our meaningful involvement in the review of the Kiggavik Uranium Mine Project Proposal (Project).

The Project is located only 80-km west of Baker Lake, and represents a historic development proposal for the region, which may have significant adverse impacts on the land, wildlife and our traditional way of life. This is of great concern to our Hunters and Trappers.

As you know, the Environmental Impact Statement (EIS) will be a voluminous document and the review process will be demanding. The level of information and assessment that will be required goes far beyond the HTO's usual activities and budget allocation. With this in mind, the HTO will require resources to seek assistance in evaluating the project description, impact predictions and technical reports.

Intervener funding is particularly important to the HTO because it is directly affected by the project and can provide unique and important perspectives to the Nunavut Impact Review Board (NIRB), and other parties, in the area of key land and wildlife impacts. The HTO would also like to highlight the importance of its role given the current issues facing caribou populations in the North. Caribou are thought to have declined significantly over the past couple of decades. The HTO must have an opportunity to review the Proponent's information and provide its own input to NIRB. It's important to highlight that only the HTO can provide an on-the-land perspective and the HTO's concerns and mandate are **not** covered by any other intervenor that may have an interest in the Project.

The HTO believes its interests have been underrepresented in past project reviews and we are interested in working cooperatively to ensure our contribution is improved during this review process. We trust that NIRB will afford the HTO an opportunity, through the intervener funding program, to organize, hire advisors to support our case, to question the Proponent, to present evidence and argue our case, and to be heard in front of the NIRB Board.

As previously mentioned, the HTO has access to only limited funding for day-to-day operations and Board responsibilities. Without financial assistance available through the intervenor funding program we will not be able to participate meaningfully in NIRB's review process, from scoping to the final public hearing.

The HTO shares the concerns raised by Nunavummiut Makitagunarningit regarding the need to award funding prior to any formal scoping process. However, we are encouraged by NIRB's commitment in its response to Nunavummiut Makitagunarningit dated March 30, 2010:

the Board will ensure that participant funding has been awarded by the Minister of Indian and Northern Affairs Canada prior to inviting formal comment on the scope of the project and the assessment.

Finally, the HTO would like to highlight some difficulty, at this time, with anticipating total costs for the full review process, which may take a couple years to complete. There are numerous unknowns concerning information requirements, scheduling of meetings and the like. Therefore, the HTO respectfully asks that NIRB consider a participant funding re-evaluation opportunity at the time of the Pre-Hearing Conference. This will ensure that funding recipients are positioned to carry-on with the review process following the submission of a final EIS.

Please see the attached application and budget for the Baker Lake HTO's participation. The HTO looks forward to participating in NIRB's review process. Should you have any questions please do not hesitate to contact me.

Yours truly,

(*Original signed by*)

Richard Aksawnee Chairman

Attachment: Intervenor funding budget



#### PARTICIPANT FUNDING APPLICATION FORM

TARTION MATERIAL MATERIAL TORNA
NIRB Use Only Date Received: File Number:
Participant Funding: Application for Funding
Please refer to "How to Complete Your Application Form" of the guide entitled "Participant Funding" wh completing this application.
Step 1: Applicant Information
Name and location of project:
Kiggavik Uranium Mine Project.
Please specify which phases and steps of the Review you intend to participate in:
<ul> <li>Scoping;</li> <li>EIS Guidelines Review;</li> <li>Draft EIS Review;</li> <li>Technical Meeting;</li> <li>Pre-hearing conference;</li> <li>Final EIS Review;</li> <li>Public Hearing;</li> <li>Any other meetings scheduled;</li> </ul>
Name of applicant (individual or organization):
Baker Lake Hunters and Trappers Organization
Web site address:
N/A
Legal name of applicant (if different):
Same
Mailing address:

P.O. Box 255

Baker Lake Hunters and Trappers Organization

	Baker Lake, NU X0C 0A0
City /	Town:
	Baker Lake
Provin	ce:
	Nunavut
Postal	Code:
	XOC 0A0
Teleph	none number:
	867-793-2520, 867-793-2034
E-mail	address:
	bakerhto@qiniq.com
If the a	application is for an individual or a law firm, indicate on whose behalf you are submitting this ation.
Applyi	ng on behalf of him/herself or law firm: N/A
Applyi	ng on behalf of an unincorporated entity: N/A
Name	of unincorporated entity:
(Note: 1	Applications will not be accepted from unincorporated entities in their own name.)
If you	and title of contact person for corporation/ organization/ group/ association: represent an entity (incorporated or otherwise) supporting documentation, endorsing you as the entity's tation must be attached to this application.
Langua Englisi French	
Teleph	none number (if different):
	mber (if different): c organization incorporated? Yes No
-	l No.: Provincial No.:
	ss number (Canada Customs and Revenue Agency):
	The HTO is registered as 'Baker Lake Hunters' & Trappers' Association'
	and the file # is SOC218

GST/HST rebate number: GST/HST rebate %:				
Have you applied or will be process? No ✓ Yes	applying for funds	from other sources	s to participate is	n the review
If yes, please specify how mucl	n and the source.			
N/A				

Describe your or your organization's major goals and mandate.

The HTO promotes and oversees Inuit harvesting activities for the Hamlet. In doing so our function is the regulation of harvesting practices and techniques among members, including the use of non-quota limitations, the allocation and enforcement of community basic needs levels and adjusted basic needs levels among members, the assignment to non-members, with or without valuable consideration and conditions, of any portion of community basic needs levels and adjusted basic needs levels, and generally, the management of harvesting among members.

Describe your interest in the Review.

The HTO's interest for participating in the review is to ensure that the Project does not impact the hunting and trapping activities of our membership and affect the ability of Baker Lake to meet basic needs harvesting levels, which are already threatened. The HTO appreciates the importance of the NIRB process as a project planning and approval process. The HTO is interested in providing advice on existing conditions and potential impacts. In addition, the HTO wishes to provide its on-the-land experience to the Board and parties during the decision-making process.

#### **Step 2: Description of Proposed Activities**

Describe your proposed contribution to the Review, including:

• the objectives of your participation;

The HTO's objective is to work cooperatively with NIRB and parties to ensure that the concerns of our membership are addressed and to eliminate environmental impacts. The HTO believes that the on-the-land experience of hunters and trappers specific to the project area is essential to understanding potential impacts.

• your proposed activities for which you are seeking funding; and

The HTO is seeking funds in order to organize its membership for meetings pertaining to the review of the project and to travel to meeting where required. This will give all parties access to the knowledge held by hunters and trappers. The HTO requires funds to contract advisors to review and provide advice on procedural issues, the impact assessment and technical information contained in the draft and final Environmental Impact Statement. The HTO does not have the resources to do so on its own. The technical review will allow the HTO to gain an

understanding of the information presented by the proponent in order for the HTO to formulate its own findings and present them at technical meetings, pre-hearing and the final hearing.

• how these proposed objectives and activities may contribute to the review's understanding of the anticipated effects of the project.

Through an understanding of the technical content and information submitted by the proponent, the HTO will be able to formulate its own findings and present them to NIRB. The HTO's review and participation will provide decision-makers and interested persons with a view point unlike other parties – a view point based on experience from years spent on the land observing wildlife behaviour and dynamics. This knowledge will make a significant contribution to understanding the ecosystem and any anticipated effects of the project.

Identify your capacity to carry out the proposed activities.

(Describe relevant experience, expertise and skills you or your organization have that will help you to carry out your proposed activities.)

The HTO has years of on the land experience related to wildlife, climate, land use and local knowledge of the project area. The HTO does not have the resources and experience to navigate the process and undertake a technical evaluation of the information submitted by the proponent. In order to gain a full understanding of potential impacts suggested by the proponent, to protect HTO interests, and to question the proponent at technical meetings and the hearing, the HTO requires funds to contract advisors to provide technical support during the review and hearing. Based in the technical support the HTO will be much better able to provide NIRB and parties with its own evaluation based on years of experience.

Describe why you believe your participation will bring an important and distinct perspective to the Review.

No other party represents the specific and traditional interests and experience of our Hunters and Trappers who rely on the land-based resources potentially affected by the project.

Have you or your organization made an effort to cooperate with other individuals or organizations in preparing a funding application?

No	$\checkmark$	The H	O has a	unique p	perspecti	ve and	interest	n the F	roject.	Howeve	r, the
HTO	plans '	to coope	rate with	other pa	arties wis	shing to	underta	ke inve	stigation	s in are	as of
		•	ncluding I nmiut Mak			•		ited to,	researcl	n that m	ay be
Yes											

If yes, please specify name of individual / organization

How are the proposed activities incremental to your ongoing business?

The HTO is currently under funded and under staffed. Current funding supports day-to-day operations and without intervener funding for important reviews of major development projects the HTO will be unable to participate in a meaningful way.

#### Step 3: Funding Requested

Please summarize your request for funding of eligible expenses, using the following table (see part 2 of the guide entitled *Participant Funding* for information on each expense category):

#### **Priority Expense Category Funding Requested**

Local collection / distribution of information	\$0	(low)
Professional fees (excluding legal fees)	\$116,000	(high)
Travel expenses	\$33,000	(high)
Office supplies	\$1,000	(low)
Rental of office space / meeting rooms	\$2,000	(medium)
Staff salaries	\$10,000	(high)
Legal fees	\$25,000	(high)
General media advertising / promotion	\$1,000	(medium)
Purchase of information material	\$0	(low)
Other (specify)	\$0	(low)

#### TOTAL funding requested

With respect to each expense, please provide additional information to support your request. Use additional sheets if needed.

#### Local collection / distribution of information:

\$0.00. The HTO anticipates the information pertaining to the project will be distributed freely by the proponent and NIRB.

\$188,000

#### Professional fees (excluding legal fees):

The HTO anticipates requiring one primary advisor to support our intervention and two additional specialists to review and provide an independent assessment of topics of concern in the EIS. Specialists will be required in the areas of wildlife science & ecology, human health & ecological risk, and potentially an IQ coordinator to analyze how our views are considered and incorporated.

#### HTO organizational & advisory pre-scoping meeting and scoping support

Days	Average daily rate	Cost
12	\$1000	\$12,000.00

#### **EIS Guidelines review**

Days	Average daily rate	Cost
8	\$1000	\$8,000.00

#### Research/Workshop support

Days	Average daily rate	Cost
10	\$1000	\$10,000.00

#### **DEIS Review/Report & presentation preparation**

Days	Average daily rate	Cost
45	\$1000	\$45,000.00

#### **Technical Meeting/PHC Support**

Days	Average daily rate	Cost
10	\$1000	\$10,000.00

#### FEIS/Supplemental information review/report & presentation preparation

Days	Average daily rate	<u>Cost</u>
20	\$1000	20,000.00

#### **Public Hearing Support**

Days	Average daily rate	Cost
10	\$1000	10,000.00

#### **Translation Services**

Pages	rate/page	Cost
20	\$50	1000.00

Total 116,000

#### Travel expenses:

Representatives from the HTO and advisors will attend the technical meeting/pre-hearing conference and the final hearing. The HTO has assumed that the technical meeting and hearings will take place in Baker Lake. Consultants and advisors will be required to travel to Baker Lake.

#### Preliminary Organizational Meeting with Advisors in Baker Lake

Travel: 2000.00 Accommodations: 2000.00 Per diems: 500.00

Workshops

Travel: 2000.00 Accommodations: 2000.00 Per diems: 500.00

#### **Technical meeting and PHC**

Travel: 6000.00 (up to three advisors)

Accommodations: 4000.00 Per diems: 2000.00

Final hearing

Travel: 6000.00 (up to three advisors)

Accommodations: 4000.00

Per diems: 2000.00

Total **33,000** 

Office supplies:

1000.00. Paper, printer ink and meeting materials for HTO meetings related to the Project

Rental of office space / meeting rooms:

2000.00. The HTO intends to hold meetings with its membership. The HTO will require renting venues for that purpose. Venues can range from \$500 to \$1000 per rental. 2 to 3 meetings are anticipated to be required.

Staff salaries:

10,000. The HTO is required to pay its Board members for additional meeting time required to review the Project and prepare for meetings. The HTO has eight board members including three executive members: Chairperson, Vice-Chairperson and Secretary Treasurer, and five directors. Board Member Meeting costs are \$830/day. A minimum of 12 meeting is projected.

#### Legal fees:

The NIRB's environmental assessment process is a public legal process. According to Section 12.12.5 of the NLCA, decisions made regarding the Project must be designed, implemented and interpreted in a manner consistent with Article 5 and 7. Given that the HTO has responsibilities set out in Article 5, the HTO may have to seek legal counsel for specific issues should they arise, in order to provide accurate input to NIRB. As a result, the HTO has included a \$25,000.00 contingency for that purpose. This is calculated based on a daily rate \$1500 for approximately 16 days of service.

General media advertising / promotion:

1000.00. The HTO will require advertising to promote the meetings it intends to have with its membership during the review process. The funds will be used to advertise on the co-op television station and print flyers to circulate in the community.

Purchase of information material:

N/A

Other:

N/A

# NIRB Federal government Territorial government Newspaper Email to your organization Word of mouth Other: please specify

How did you hear about the Participant Funding Program for the Review?

# Participant Funding Program

# **Application for Funding: Certification Form**

## **Certification and Consent:**

I/we hereby certify that the information I/we have provided in this application is accurate to the best of my/our knowledge. In the event that a participant funding award is to be made based on this application, I/we agree that no funding will be payable unless I/we sign the INAC standard Contribution Agreement.

I/we hereby consent to the NIRB providing a copy of this Application Form and of the aforementioned Contribution Agreement (once signed by me/us and by INAC) to any person that the NIRB deems appropriate in the circumstances. I/we further consent to the NIRB making copies of any written submissions during the Review process, by me/us or by the corporation, organization, group or association that I/we represent and to use those copies for purposes related to the Review. The information collected will be subject to the Access to Information Act.

Richard Aksawnee

Chairman Title

Authorized signature

April 12, 2010

Date