



September 3, 2008

Jeffrey Holwell
A/Manager, Land Administration
Indian and Northern Affairs Canada
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Iqaluit, Nunavut X0A 0H0
Fax # (867) 975-4286

Leslie Payette
Nunavut Impact Review Board
P.O. Box 1360
Cambridge Bay, NU
FAX (867) 983-2574

Phyllis Beaulieu
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU
FAX (867) 360-6369

Jennifer Wilman
Manager, Research Liaison
Nunavut Research Institute
P.O. Box 1720
Iqaluit, Nunavut X0A 0H0
Fax # (867) 979-7109

Dear Mr. Holwell, Ms. Payette, Ms. Beaulieu, Ms. Wilman,

Re: NWB 3BC-DIC Devon Icecap Project – University of Alberta

The NPC has completed its review of the above noted project proposal. It conforms to the North Baffin Regional Land Use Plan (NBRLUP), subject to the attached.

By this letter and additional enclosures, the NPC is forwarding the project proposal with this determination to NIRB for screening.

The applicant has undertaken to comply with the attached requirements. The authorizing agencies to which this letter is addressed are responsible under the *Nunavut Land Claims Agreement* to implement any of the attached requirements by incorporating the requirements directly, or otherwise ensuring that they must be met, in the terms and conditions of any authorizations issued.

My office would be pleased to discuss with these agencies how best to implement these requirements and to review any draft authorizations that the agencies wish to provide for that purpose.

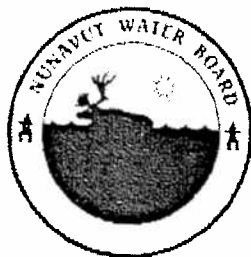
And, this conformity determination applies only to the above noted applications as submitted. Therefore, the proponent must ensure other applications for a permit under this project proposal not listed above are forwarded to NPC for a conformity determination against the NBRLUP, and notify the NPC immediately if any material to the project proposal is changed before authorizations are issued.

Yours truly,



Bobby Suluk
Regional Planning Co-ordinator, NPC

Cc: Derek Muir, Environment Canada



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NUNAVUT WATER BOARD
NUNAVUT WATER BOARD
OFFICE OF THE CHIEF OF NUNAVUT

WATER LICENCE APPLICATION FORM

Application for: (check one)

☒ New

☐ Renewal

☐ Amendment

☐ Assignment

☐ Cancellation

LICENCE NO:

(for NWB use only)

1. NAME AND MAILING ADDRESS OF
APPLICANT/LICENSEE

Derek Muir

Phone: 905-319-6921

Fax: 905-336-6340

e-mail: derek.muir@ec.gc.ca

2. ADDRESS OF CORPORATE OFFICE IN
CANADA (if applicable)

Environment Canada, Aquatic Ecosystem Protection
Research Division, 867 Lakeshore Road, Burlington ON
L7R4A6

Phone: 905-319-6921

Fax: 905-336-6340

e-mail: derek.muir@ec.gc.ca

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main
components of the Undertaking)

Devon ice cap snow sampling

Latitude: (75°20'46" N)

Longitude: (82°40'12" W)

NTS Map Sheet No. 48H, Scale: _____

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

The purpose of the project is to find out how much of these new chemical contaminants are entering the environment of Nunavut, and where they may be coming from by collecting snow samples from the ice caps on Devon Island and sediment from the bottom of lakes on Cornwallis Island

Snow collection:

In early May 2008, a 2 person team will go to the Devon ice caps by Twin Otter plane (PCSP) from Resolute. A single camp (2 tents) will be established on the ice cap for about 5 days. A snow pit (5 -6 m deep) will be dug about 1 km from the camp and travel to the collection site will be via snowmobile with 1 sled, returning to camp daily. Field work will take approximately 3 days assuming good weather. The snow will be collected in 4L plastic bottles. The team will then return to Resolute. All garbage and waste will be carried out.

Sediment collection

The second phase of the study will be to collect sediment cores from the deepest point in 3 lakes near Resolute Bay NU. The lakes are Char, Small, Plateau (Nine mile) and Amituk. Our two person team will be joined by a locally hired person from Resolute Bay. Samples will be collected by cutting a small hole (25 cm diameter) using an ice auger over the deep point in the lake. We know where the deep points are from previous surveys and local knowledge. Two sediment cores (about 10 cm diameter and 30 cm long) will be collected and returned to PCSP lab for slicing into 0.5 cm intervals. This sediment will be placed in small bottles. The sediment coring will take about 5 days. Transport

Effective June 16, 2006

will be by snowmobile except for a planned trip to Amituk Lake by helicopter. All accommodation will be at the PCSP base. No lake water will be used for drinking or waste disposal purposes.

5. **TYPE OF PRIMARY UNDERTAKING** (A supplementary questionnaire must be submitted with the application for undertakings listed in "**bold**")

☐ **Industrial**

☐ **Mining and Milling** (includes exploration/drilling)

☐ **Municipal** (includes camps/lodges)

☐ **Power**

☐ Agricultural

☐ **Conservation**

☐ Recreational

☒ **Miscellaneous** (describe below):

Sampling of snow from the Devon ice cap and maintenance of a two person camp on the ice cap for 5 to 7 days which will utilize a small amount of melted snow for cooking. Grey water and urine will be collected in a plastic bottle and shipped out along with solid waste.

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

Effective June 16, 2006

6. WATER USE

- ☐ To obtain water
☐ To cross a watercourse
☐ To modify the bed or bank of a watercourse
☐ Flood control
☐ To divert a watercourse
☐ To alter the flow of, or store, water

☒ Other (describe): To collect about 400 kg of snow from the Devon ice cap from a snow pit in order to trace past inputs of contaminants and use of water for cooking in a two person camp on the ice cap for 5 to 7 days.

7. QUANTITY OF WATER INVOLVED (cubic metres per day including both quantity to be used and quantity to be returned to source)

Water use ☒ 100m³/day or less
☐ Greater than 100m³/day: if greater, indicate quantities to be used for each purpose (camp, drilling, etc.)

Water returned to source
none m³/day

8. WASTE (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

- ☐ Sewage
☐ Solid Waste
☐ Hazardous
☐ Bulky Items/Scrap Metal
☐ Waste oil
☒ Greywater
☐ Sludges
☐ Other describe: grey water from cooking/cleaning and urine is estimated to be about 4L per day. It will be collected in 4L containers and shipped out then immediately disposed of at the PCSP base in Resolute.

9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach if necessary)

Land Use Permit
 DIAND

☐ Yes ☐ No If no, date expected _____

Regional Inuit Association

☐ Yes ☐ No If no, date expected _____

Commissioner

☐ Yes ☐ No If no, date expected _____

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)

NIRB Screening ☐ Yes ☒ No If no, date expected currently under review

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay

Effective June 16, 2006

compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

Not applicable

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

Project team for 2008
 Dan Walsh (team leader) phone 905-336-4403
 Environment Canada
 Burlington ON L7R 4A6
 dan.walsh@ec.gc.ca
 Tersten Meyer (PhD student), University of Toronto
 Paul Drevnick (Post doc), Woods Hole Oceanographic Institute, Woods Hole MA (lake sediments only)
 Peter Amagualik, Local hunter/guide, Resolute Bay NU (lake sediments only)

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

We have previously undertaken the same study at this site in 2005 and 2006. A report to the Northern Contaminants program for the 2006 study is attached

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) ☒ Yes ☐ No If no, date expected _____

Inuktitut and/or Inuinnaqut/English Summary of Project ☒ Yes ☐ No If no, date expected _____

Application fee of \$30.00 (Payee Receiver General for Canada) ☒ Yes ☐ No If no, date expected _____

Water Use fee of \$30.00 (unless otherwise indicated in Section 9 of the *NWT Waters Regulations*; Payee Receiver General for Canada)

☒ Yes ☐ No If no, date expected _____

15. PROPOSED TIME SCHEDULE (unless otherwise indicated, the NWB will consider the application for a five (5) year term)

☐ one year or less (or) ☒ Multi Year

Start Date: May 1, 2008 Completion Date: Aug 31, 2010

Derek Muir

Name (Print)

Research Scientist

Title (Print)

Signature

April 25, 2008

Date

For Nunavut Water Board office use only

APPLICATION FEE Amount: \$ _____ Pay ID No.: _____

WATER USE DEPOSIT Amount: \$ _____ Pay ID No.: _____

Application # NWB 3BC-DIC Devon Ice Cap Project - Environment Canada

**NUNAVUT PLANNING COMMISSION
APPLICATION TO DETERMINE CONFORMITY
WITH THE NORTH BAFFIN REGIONAL LAND USE PLAN**

All applicants for a project proposal shall comply with the requirements listed below. The relevant sections of the plan are noted in each requirement.

GENERAL

2. **Environmental Protection:** s3.3.11.8: The applicant undertakes to prevent any new occurrences of pollution, garbage and contamination at the site of the development.

Yes

No

3. **Removal of Fuel Drums:** s3.3.11.8: The applicant undertakes to remove all drums safely from the site and dispose of the drums in a safe manner.

Yes

No

4. **New Site Restoration and Clean Up:** s3.3.11.1 and Appendix C, s1: The applicant undertakes to clean up the site and restore the site to its natural condition to the greatest extent possible.

Yes

No

5. **Low-Level Air Flights:** Appendix C, s3: Will the applicant avoid all low-level flights?

Yes

No

- i. If not, explain why such flights are or may be absolutely necessary.

- ii. If such flights are or may be absolutely necessary, will they avoid disturbance to people and wildlife?

Yes

No

- iii. If not, explain why it is not possible to avoid such disturbance.

HERITAGE RESOURCES

10. **Reporting of Archaeological Sites:** s3.3.9.3 and Appendix C, s2 and s8: Will the applicant immediately report the discovery of all suspected archaeological sites to the Department of Culture, Language, Elders and Youth (GN)?

☒ Yes

No

11. **Negative Effects:** s3.3.4.6: Has the applicant planned to minimize the negative effects of its activity on the environment?

☒ Yes

No

Include with the application the mitigative measures developed.

12. **Carving Stone Deposits:** Appendix C, s9. Will the applicant report any discoveries of carving stone deposits to the Qikiqtani Inuit Association?

☒ Yes

No

SCIENTIFIC RESEARCH

17. Scientific Research: s3.3.7.3: Does the project proposal involve scientific research?

☒ Yes☐ No

If yes, will the applicant integrate all available and relevant local and traditional knowledge when conducting its research?

☒ Yes☐ No

18. Consultation with Nunavut Research Institute: s3.3.7.6: Has the applicant consulted with the Nunavut Research Institute about research topics that would benefit or interest local residents?

☒ Yes☒ No

- i. Describe the results of your consultation.

See below

- ii. If no, explain why.

I obtained a NEI license in 2009 for the study and local communities were consulted. I had no feedback on this question of local interest.

19. Local Services and Local Employment: s3.3.7.4: Will the applicant rely on local services and employment where possible?

☒ Yes☐ No

- i. Describe the services retained and the people to be employed.

Hiring local student on transfer when possible.

ii. If no, explain why it is not possible.

20. Communication on Scientific Research: s3.2.8 and s3.3.7.5:
The applicant will, at minimum, translate a summary of its work into Inuktitut and communicate with communities using language that is clear and non-technical. The results of all scientific research shall be made available to the affected communities as soon as possible.

☒ Yes

☐ No

22. Code of Good Conduct for Land Users: Appendix C: The applicant undertakes to adhere to the code of Good Conduct at all times.

☒ Yes

☐ No

Derek Muir (name of applicant), certify that the information I have given in this application is true and correct and hereby make the above undertakings which form part of my application for a project proposal within the meaning of the Nunavut Land Claims Agreement.

Date: Aug 29/08 Signature of Applicant: Derek Muir