Effective June 16, 2006

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NUNAVUT IMALIRIYIN KATIMAYINGI
NUNAVUT WATER BOARD
OFFICE DES EAUX DU 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

Dr. Scott Lamoureux
Department of Geography
Queen's University
Kingston, ON, K7L 3N6

Phone: 613-533-6033
Fax: 613-533-6122
e-mail: scott.lamoureux@queensu.ca

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

_____

Phone: _____
Fax: _____
e-mail: _____

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

Location: Cape Bounty, Melville Island

Latitude: (74°54' " N) Longitude: (109°35' " W)
NTS Map Sheet No. 78F/15 Scale: 1:50 000 Cape Bounty

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

Field research camp composed of temporary tents and up to eleven people on site at a given time. Additionally, we are sampling two small watersheds intensively for water quality research. These samples are < 1 l per hour, with less than 10/l per day on a given stream or lake. Samples are filtered and a small quantity is retained for analyse, the remainder is disposed of unaltered into the soil. We are also operating several river measurement stations that contain temporary stilling wells and electronic sensors to continuously measure discharge, turbidity, and electrical conductivity. Several submerssible instruments are deployed in the lakes to record similar parameters. All instruments are recovered at the end of each melt season.

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):

	Hydrological research, involving measurement of snowpack, river discharge, sediment transport, and natural water hydrochemistry. This research is intended to develop an understanding of the likely impacts of climate change on surface waters in the region. Work involves access to, crossing and sampling of streams and lakes. Additionally, a seasonal, temporary field camp is used by personnel. Water is collected manually in 20 L containers from the streams or lakes.

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

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): Sampling water for scientific purposes (dissolved and suspended sediment)

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

Water use ☒ $100m^3$/day or less
☐ Greater than $100m^3$/day; if greater, indicate quantities to be used for each purpose (camp, drilling, etc.)

Water returned to source
0 m^3/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):<10 l/day greywater disposed in a shallow pit > 100 m from surface water. Solid sewage waste disposed in shallow pit >100 m from surface water by individual camp members.

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

Our field research licence is screened by NRI, NIRB, the community and HTO in Resolute and other responsible agencies, including all funding agencies, for environmental and/or socio-economic impacts. This screening has not raised any issues or concerns since our initial licencing in 2003.

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.)

Work generates minimal impacts to surface waters. Our research requires exceptional care to prevent contamination or pollution in the surface waters, and we adhere to minimal disruption of waters, channel banks and shorelines. NIRB screeing of our impacts and mitigation measures did not identify any concerns.

NIRB Screening ☒ Yes ☐ No If no, date expected _____

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?

No

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

No

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

None

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

We have produced a number of scientific publications, student research reports and theses, and related documents about the hydrological environment at Cape Bounty. We are able to provide these on request, and would be willing to meet with the Board to provide an overview of our work.

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 Inuinnaqtun/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

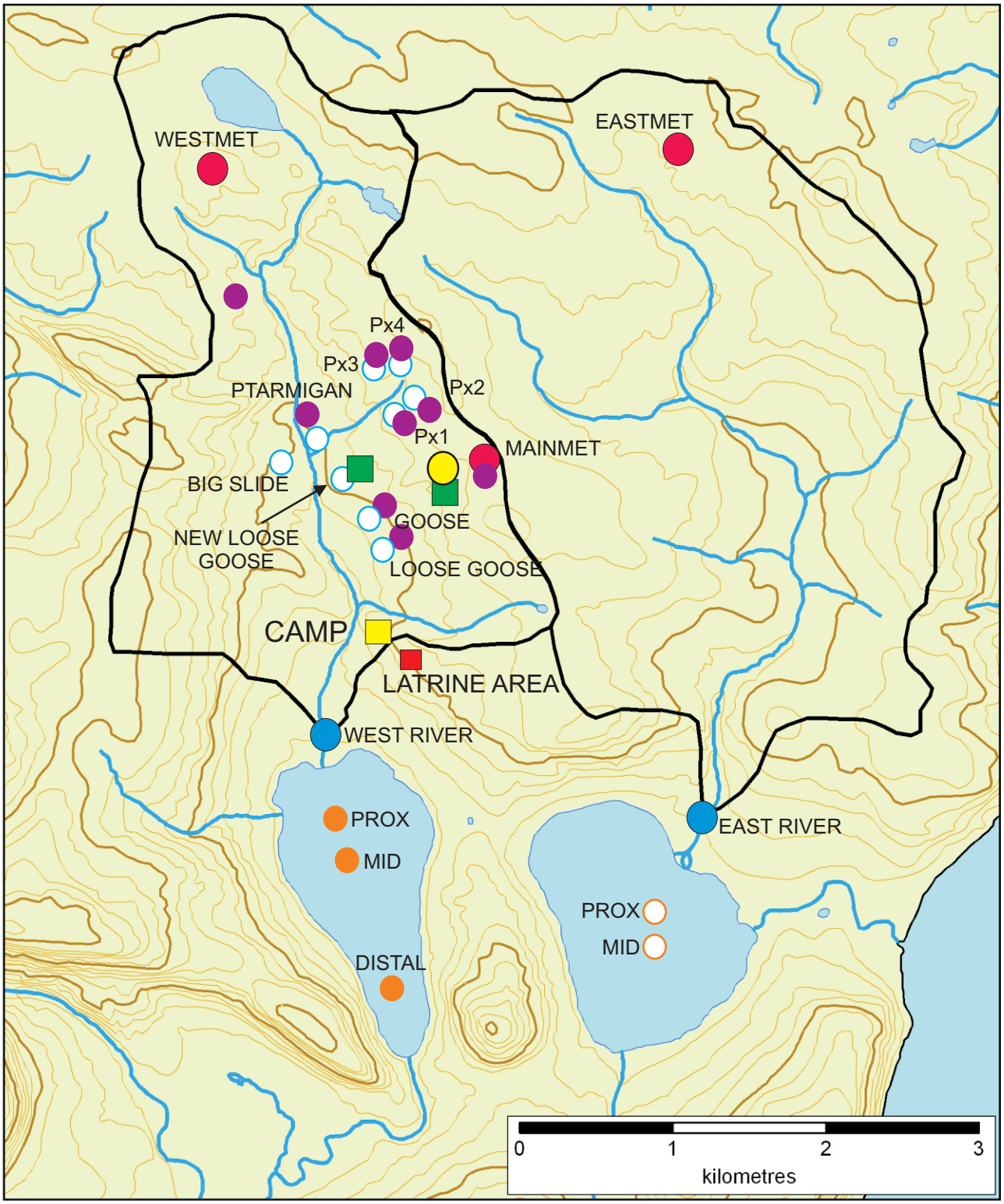
Start Date: 2008 Completion Date: 2015, potentially longer

Scott Lamoureux	**Associate Professor**		**June 18, 2008**
Name (Print)	**Title (Print)**	**Signature**	**Date**

For Nunavut Water Board office use only

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

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



Contour interval 10 m

Source: NTS 78 F/15 1:50 000
Prepared by: S. Lamoureux 06/2008

Legend:

- Meteorological station
- River station, pump and manual sampling
- River station, manual sampling
- Soil moisture and active layer temperature station
- Limnology station (CTD, traps, frequent servicing)
- Atmospheric flux tower
- **Proposed ITEX/CiCAT vegetation plot sites**