



PART 1 FORM PROJECT PROPOSAL INFORMATION REQUIREMENTS

To access EMRIRB documents, project screenings, and project reviews please visit the Eeyou Marine Region Impact Review Board's Public Registry, on the EMRIRB's website www.eeyoumarineregion.ca. Please contact info-irb@eeyoumarineregion.ca if you have any questions or require further information. Please refer to Guide Three: Filing Project Proposals & the Screening Process for further information on how to fill out this form.

IMPORTANT!

Please be advised that your application will not be processed until the Sections 1 - 9 are completed in their entirety.

SECTION 1: APPLICANT INFORMATION

1. **Name of Organization / department** Institut des sciences de le mer de Rimouski, Université du Québec à Rimouski

2. **Organization website:** www.ismer.ca and www.uqar.ca

3. **Applicant's full name and mailing address:**

<u>Urs Neumeier</u>	Phone: <u>418-723-1986 ext 1278</u>
<u>ISMER</u>	Fax: <u>418-724-1842</u>
<u>310 allée des Ursulines</u>	Email: <u>urs_neumeier@uqar.ca</u>
<u>Rimouski QC G5L 3A1</u>	

4. **Primary contact's full name and mailing address:**

_____	Phone: _____
_____	Fax: _____
_____	Email: _____

SECTION 2: AUTHORIZATION NEEDED

1. Indicate all authorizations associated with the project proposal:

<input type="checkbox"/>	Eeyou Marine Region Planning Commission (EMRPC)	<input type="checkbox"/>	Eeyou Marine Region Wildlife Board (EMRWB)
<input type="checkbox"/>	Cree Nation Government (CNG)	<input type="checkbox"/>	Environment Canada (EC)
<input type="checkbox"/>	Indigenous and Northern Affairs Canada (INAC)	<input type="checkbox"/>	Department of Fisheries and Oceans (DFO)
<input type="checkbox"/>	Department of National Defense (DND)	<input type="checkbox"/>	Parks Canada (PC)
<input type="checkbox"/>	Transport Canada (TC)	<input type="checkbox"/>	Canadian Launch Safety (CLS)
<input type="checkbox"/>	Community Government & Services (CG&S)	<input type="checkbox"/>	Canadian Wildlife Service (CWS)
<input type="checkbox"/>	Quebec Ministry of Sustainable Development, Environment, Wildlife and Parks	<input type="checkbox"/>	Quebec Ministry of National Resources
<input checked="" type="checkbox"/>	Nunavik Marine Region Impact Review Board	<input type="checkbox"/>	Nunavik Marine Region Planning Commission
<input type="checkbox"/>	Other (please specify): _____	<input type="checkbox"/>	Nunavik Marine Region Wildlife Board

2. List the active permits, licenses, or other authorizations related to the project proposal, and their expiry date(s):

none

3. List the pending permits, licenses, or other authorizations related to the project proposal:

Project proposal submitted to Nunavik Marine Region Impact Review Board on 3 May 2017.

4. Has this project or any components of this project been previously screened or reviewed by EMRIRB and/or EMRWB and/or NMRIRB and/or NMRWB where applicable?

YES

NO

If YES, indicate the previous project name and EMRIRB File No. (and/or EMRWB, NMRIRB or NMRWB File No.):

5. Has this project or any components of this project previously requested funding from the EMRWB?

YES

NO

If YES, indicate the previous project name and EMRWB File No.:

SECTION 3: PROJECT PROPOSAL DESCRIPTION

1. Indicate the type of project proposal (check all that apply)^(1,2):
(See Appendix A for Project Type Definitions)

1	All-Weather Road/Access Trail	<input type="checkbox"/>	9	Site Cleanup/Remediation	<input type="checkbox"/>
2	Winter Road/ Winter Trail	<input type="checkbox"/>	10	Oil and Natural Gas Exploration/Activities	<input type="checkbox"/>
3	Mineral Exploration	<input type="checkbox"/>	11	Marine Based Activities	<input type="checkbox"/>
4	Advanced Mineral Exploration	<input type="checkbox"/>	12	Scientific Research *	<input checked="" type="checkbox"/>
5	Mine Development /Bulk Sampling	<input type="checkbox"/>	13	Harvesting Activities *	<input type="checkbox"/>
6	Pits and quarries	<input type="checkbox"/>	14	Tourism Activities *	<input type="checkbox"/>
7	Offshore Infrastructure (port, break water, dock)	<input type="checkbox"/>	15	Other ⁽³⁾ : Specify _____	<input type="checkbox"/>
8	Seismic Survey	<input type="checkbox"/>			

Please note:

- All project types listed above, except those marked with an asterisk (*), will also require the Proponent to submit a **Part 2 Project Specific Information Requirement (PSIR) Form**. The EMRIRB application process will not be considered complete without the Part 2 PSIR Form. This form can be found online at www.eeyoumarineregion.ca.
- Please be advised that in order to complete the EMRIRB process, the EMRIRB may request additional information at any time during the process.
- If "Other" is selected, contact the EMRIRB for direction on whether a Part 2 PSIR Form is required.

2. Keywords to describe project (up to 10; separated by commas):

wave measurements, wave modelling, bathymetric survey

Project title : Wave measuring and modelling at Whapmagoostui and Quaqtq from 2017 to 2020

3. Indicate whether the project proposal is:

Single Year

Multi-Year

4. If Project Type 3, 4 or 5 was selected in Section 3.1 above, please indicate the mineral of interest that is being extracted. Include a brief description.

<input type="checkbox"/>	Base Metals (zinc, copper, gold, silver, etc)	_____
<input type="checkbox"/>	Diamonds	_____
<input type="checkbox"/>	Uranium	_____
<input type="checkbox"/>	Other:	_____

5. If Project Type 12 was selected above, please indicate the Research Type:

Survey

Behavioural

Sampling

Other: Specify _____

6a. If Project Type 12, 13 or 14 was selected above complete the table and questions below.

Transportation Type	Quantity	Proposed Use	Length of Use
Fishing boat of Umiujaq (Tatsik)	1	Initial survey and depoiment/recovering of mooring at Whapmagoostui	8 days in 4 years
Boat	2	Bathymetry surveys at Whapmagoostui	14 days in 2017

6b. Describe any docks, piers, airstrips or related structures that are to be used in conjunction with the proposed project activities. **Please note:** *the building of new structures may require a Part 2 Form.* The existing docks or piers a Whapmaagoostui will be used for loading and unloading the scientific mooring to/from the fishing boat.

6c. If a temporary campsite is to be established, describe the proposed structures in detail and indicate the type and source of power for the campsite, if applicable.

N/A

7. Personnel

Total No. of personnel on site = (A)	moorings : 2 bathy survey : 1	Total No. of days on-site = (B)	moorings : 8 days bathy survey : 14 days	Total No. of Person days (A) × (B) = 30
--------------------------------------	----------------------------------	---------------------------------	---	--

8. Timing

Period of operation: from 1st July 2017 to 31st September 2020
Proposed term of authorization: from 1st July 2017 to 31st September 2020

9a. Area (check all that apply):

<input type="checkbox"/>	Eastern James Bay	<input type="checkbox"/>	Islands: Specify	<input type="checkbox"/>	Transboundary
<input checked="" type="checkbox"/>	Southeastern Hudson's Bay	<input type="checkbox"/>	_____	<input type="checkbox"/>	Other: Specify

9b. Describe the location of the proposed project activities in a regional context, noting the proximity to the nearest communities, protected areas, and important islands or cultural sites.

The marine area near Whapmagoostui will be studied with a mooring located 8 km offshore at 25-40 m water depth and bathymetric surveys in front of the village, in Manitounuk Sound, and around Gillies Island.

9c. Discuss the history of the site, if it has been used for any project activities in the past.

N/A

9d. Indicate if there are any known archaeological/paleontological historical sites in the area.

none

10. Land Status (check all that applies):

<input checked="" type="checkbox"/> Crown	<input type="checkbox"/> Municipal	<input type="checkbox"/> Other: Specify _____
<input type="checkbox"/> Cree Owned Surface Lands	<input type="checkbox"/> Land Jointly Owned by the Cree and Nunavik Inuit	

11a. Provide co-ordinates:

Min Lat (degree/minute)	<u>55°16'</u>	Min Long (degree/minute)	<u>77°33'</u>
Max Lat (degree/minute)	<u>55°26'</u>	Max Long (degree/minute)	<u>77°52'</u>

NTS Map Sheet No: 33N/5

(Please ensure that maps of the project are attached (1:50,000 **if available**, 1:250, 000 **Mandatory**) available from Natural Resources Canada)

11b. If the project proposal includes a camp, please provide the coordinates of the camp location

Min Lat (degree/minute)	<u>N/A</u>	Min Long (degree/minute)	<u>N/A</u>
Max Lat (degree/minute)	<u>N/A</u>	Max Long (degree/minute)	<u>N/A</u>

If different from above for the camp:

NTS Map Sheet No: N/A

Please ensure that maps of the project are attached (1:50,000 **if available**, 1:250, 000 **Mandatory**) available from Natural Resources Canada. If possible, include a single map with important locations (camps, temporary installations, flite lines, fuel caches, etc) indicated.

Please note that additional location information may be required in a subsequent Project Specific Information Requirement (PSIR) submission. This may take the form of a digital Geographic Information Systems (GIS) file.

SECTION 4: NON-TECHNICAL PROJECT PROPOSAL DESCRIPTION

Please include a non-technical description of the project proposal, no more than 500 words, in English and Eastern James Bay Cree. The project description should outline the following:

- The project activities (including methodology), their necessity (including hypotheses and main research objectives) and duration;
- Method of transportation;
- Any structures that will be erected (permanent/ temporary);
- Alternatives considered; and
- Long-term developments, the projected outcome of the development for the area, and its timeline.

IMPORTANT: IF THE PROPOSED ACTIVITIES REQUIRE SUBMISSION OF A EMRIRB PART 2 PSIR FORM, PLEASE COMPLETE SECTION 8 ONLY, OTHERWISE CONTINUE ON WITH SECTION 5.

SECTION 5: MATERIAL USE

1. List equipment to be used (including drills, pumps, aircraft, vehicles, etc.):

Equipment type and number	Size – dimensions	Proposed use
1 Fishing boat (Tatsik)	15 m	Initial survey and deployment / recovery of moorings
2 motorboats	6 m	bathymetric survey
1 mooring structure with AWAC-AST 600 kHz	1.8 x 1.3 x 0.6 m	To measure waves, currents and ice thickness

2a. Detail fuel and hazardous material use:

Fuel	Number of Containers and Capacity of Containers	Total Amount of Fuel (in Litres)	Proposed Storage Methods
Diesel			
Gasoline			
Aviation fuel			
Propane			
Other			
Hazardous Materials and Chemicals		Total Amount of Hazardous Materials and Chemicals (in Litres)	

2b. Describe the proposed Spill Prevention Plan.

3a. Detail the anticipated daily water consumption rates

Daily amount (m ³)	Proposed water retrieval methods	Proposed water retrieval location

SECTION 6: WASTE DISPOSAL AND TREATMENT METHODS

1. List the types of waste associated with the proposed project activities:

Type of waste	Projected amount generated	Method of Disposal	Additional treatment procedures
Sewage (human waste)			
Greywater			
Combustible wastes			
Non-Combustible wastes			
Overburden (organic soil, waste material, tailings)			
Hazardous waste			
Other:			

2. Describe the proposed Waste Management Plan.

All the scientific equipments will be shipped back to Rimouski at the end of the project.

SECTION 7: COMMUNITY INVOLVEMENT & REGIONAL BENEFITS

1. List the community representatives that have been contacted and provide the minutes of the meetings if available:

Community	Name	Organization	Date Contacted
Whapmasgoostui	Robert Wynne	First Nation	10 April 2017

SECTION 8: POTENTIAL IMPACTS

1. Will you be disturbing any known archaeological sites?

YES

NO

2.a Is there potential to disturb species at risk, or their habitat?

YES

NO

2.b If "YES" describe the nature of potential disturbance (ie: likelihood, type of disturbance to individuals or habitats):

SECTION 9: APPLICANT SIGNATURE

Please sign and date your application:



Signature

Professor in marine geology

Title

3 May 2017

Date

APPENDIX A Project Type Definitions

Access Trail: A project proposal with the objective of providing vehicular access to an area of interest involving minimal alteration to the terrain.

Advanced Exploration: A project proposal with the objective of identifying size, grade, and physical characteristics of a mineral occurrence and to assess the economic and technical feasibility of developing the mineral deposit into a producing mine

All-Weather Road: A project proposal with the objective of road construction for use in all seasons.

Bulk Sampling: A project proposal with the objective of extracting of large samples of mineralized material involving hundreds to thousands of tonnes. Samples are selected as representative of the potential mineral deposit being sampled. May involve crushing/milling (on small-scale)

Harvesting activities: A project proposal with the objective of harvesting animals, marine mammals and/or fish from their natural habitats by means of hunting or trapping for traditional and commercial use.

Marine Based Activities: Any activity occurring in the marine environment, such as vessel use associated with land-based activities or disposal at sea.

*Please note that normal community resupply or individual ship movements not associated with EMRLCA project proposals shall not be screened by the EMRIRB (Section 8.12.2 of EMRLCA).

Mine Development: A project proposal with the objective of extracting broken rock with mineralization of sufficient grade and tonnage to sustain commercial mining operations (ore). Mining a body of ore can be achieved by either open pit and/or underground development. Mine development may involve milling. Milling involves treatment of the extracted ore through a combination of mechanical and chemical processes to selectively recover the valuable mineral.

Mineral Exploration: A project proposal with the objective of exploring an area to find geological anomalies. It involves site reconnaissance (ground and/or air) to locate broad and fiscal mineral deposits.

Offshore Infrastructure: A project proposal with the objective of building off loading facilities constructed off the shoreline and connected to the mainland of the marine or freshwater environment. Examples include a jetty, dock, or port facility.

Oil and Gas Exploration/Activities: A project proposal that includes 1) exploration, such as seismic or geological mapping, 2) drilling of oil and gas wells, or 3) construction and operation of a pipeline, a gas processing plant or any oil and gas facility within Eeyou Marine Region.

Pits and Quarries: A project proposal with the objective of pitting, which involves the extraction of granular material (i.e. sands and gravels) and quarrying, which involves the removal of consolidated rock (i.e. bedrock, frozen soil).

Scientific Research: A project proposal with the objective of implementing a series of site activities comprised of observation of phenomena, measurement and collection of data necessary for scientific investigation in designated areas within a limited time period.

Seismic Survey: A project proposal with the objective of conducting a survey to map the depths and contours of rock strata by timing the reflections of sound waves released from the surface. Survey site locations may be offshore (not within 12 nautical miles of any coast), near shore, and extended onshore.

Site Cleanups: A project proposal with the objective of site cleanups, which focuses on the remediation of chemically contaminated soils, stabilization of landfills and dumps, demolition/disposal of infrastructure and debris and monitoring after cleanup is completed.

Tourism Activity: A project proposal with the objective of conducting travel predominantly for recreational, sport or leisure purposes within a designated area and limited time period.

Transboundary: A project that crosses at least one political boundary e.g. provincial, territorial, etc.

Winter Road: A project proposal with the objective of building a road for winter use by leveling and compacting surface snow and ice. Winter road is removed at end of season.

Winter Trail: A project proposal with the objective of building a trail for winter use by a single pass of a tracked vehicle using a blade, if necessary.

Wave measuring and modelling at Whapmagoostui and Quaqtaq from 2017 to 2020

A good knowledge of wave climate is needed to address coastal erosion problems and to design maritime infrastructures. However, few wave time-series exist for most of the Nunavik coasts. This project will measure waves, currents and ice thickness during three years off Whapmagoostui/Kuujjuarapik and Quaqtaq. For each village, a mooring will be installed on the sea bed at 30 m water depth from summer 2017 to summer 2020. These moorings are composed of an anti-trawl structure, an AWAC measuring waves, currents and ice-thickness, a tide gage, and an acoustic release for recovering the mooring. The moorings will be serviced every year. Deployment and recovery of the moorings will be conducted with local fishing boats and their crews: the Umiujaq fishing boat for the Whapmagoostui/Kuujjuarapik mooring and the Quaqtaq fishing boat for the Quaqtaq mooring.

Smaller moorings with just a pressure sensor will be deployed once in 5-10 m water depth closer to the shoreline for 3 months (July-September) in 2017 or 2018. There will be two small moorings at Whapmagoostui/Kuujjuarapik and one small mooring at Quaqtaq. They will be deployed at the same time as the larger moorings with the fishing boat, and they will be recovered using a small boat rented locally.

The project also includes numerical wave modelling to reproduce wave propagation in the coastal areas, to analyse wave energy reaching the different shoreline sections and to evaluate the impact of future climate changes on wave conditions. Accurate wave modelling requires detailed local bathymetry data, because bathymetry influences wave trajectory and energy dissipation.

Therefore, new bathymetric data will also be collected near Whapmagoostui/Kuujjuarapik and Quaqtaq in July-August 2017 by the Centre Interdisciplinaire de Développement en Cartographie des Océans (CIDCO) to support the wave modelling. The bathymetric surveys will be carried out with an autonomous singlebeam echosounder (Hydroball) towed by small boats that will be rented locally with their pilots. At Whapmagoostui/Kuujjuarapik, 80 km² will be mapped with a survey line spacing between 25 m and 200 m; at Quaqtaq, 15 km² with a line spacing between 25 m and 100 m. Both surveys together are expected to take 17 days.

The project will be carried out by the Institut des sciences de la mer de Rimouski (ISMER, Université du Québec à Rimouski). It is funded by the Transport Ministry of Quebec (Ministère des Transports, de la Mobilité durable et de l'Électrification des transports).