

The primary objectives of the NIRB are set out in Article 12, Section 12.2.5 of the *Nunavut Agreement* and are confirmed by s. 23 of the *NuPPAA*:

Nunavut Agreement, Article 12, Section 12.2.5: In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area.

The purpose of screening is provided for under Article 12, Section 12.4.1 of the *Nunavut Agreement* and s. 88 of the *NuPPAA* which states:

NuPPAA, s. 88: The purpose of screening a project is to determine whether the project has the potential to result in significant ecosystemic or socio-economic impacts and, accordingly, whether it requires a review by the Board...

To determine whether a review of a project is required, the NIRB is guided by the considerations as set out under Article 12, Section 12.4.2(a) and (b) of the *Nunavut Agreement* and s. 89(1) of *NuPPAA* which states:

NuPPAA, s. 89(1): The Board must be guided by the following considerations when it is called on to determine, on the completion of a screening, whether a review of the project is required:

- (a) a review is required if, in the Board's opinion,
 - i. the project may have significant adverse ecosystemic or socio-economic impacts or significant adverse impacts on wildlife habitat or Inuit harvest activities,
 - ii. the project will cause significant public concern, or
 - iii. the project involves technological innovations, the effects of which are unknown; and
- (b) a review is not required if, in the Board's opinion,
 - i. the project is unlikely to cause significant public concern, and
 - ii. its adverse ecosystemic and socioeconomic impacts are unlikely to be significant, or are highly predictable and can be adequately mitigated by known technologies.

It is noted that under Article 12, Section 12.4.2(c) and s. 89(2) of the *NuPPAA* provides that the considerations set out in s.89(1)(a) prevail over the considerations set out in s. 89(1)(b) of the *NuPPAA*.

As set out under Article 12, Section 12.4.4 of the *Nunavut Agreement* and s. 92(1) of the *NuPPAA*, upon conclusion of the screening process, the Board must provide its written report the Minister. The contents of the NIRB's report are specified under *NuPPAA*:

NuPPAA, s. 92(1): The Board must submit a written report to the responsible Minister containing a description of the project that specifies its scope and indicating that:

- (a) a review of the project is not required;
- (b) a review of the project is required; or
- (c) the project should be modified or abandoned.

Where the NIRB determines that a project may be carried out without a review, the NIRB has the discretion to recommend specific terms and conditions to be attached to any approval of the project proposal pursuant to paragraph 92(2)(a) of *NuPPAA* as follows:

NuPPAA, s. 92(2) In its report, the Board may also

- (a) recommend specific terms and conditions to apply in respect of a project that it determines may be carried out without a review.

PROJECT REFERRAL

On April 14, 2022, the Nunavut Impact Review Board (NIRB) received a referral to screen Memorial University's "Investigating Scott Inlet seeps with autonomous underwater vehicles" project proposal from the Nunavut Planning Commission (Commission), with an accompanying positive conformity determination with the North Baffin Regional Land Use Plan.

Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Nunavut Agreement* and s. 87 of the *NuPPAA*, the NIRB commenced screening this project proposal and assigned it file number **22YN022**.

PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

1. Screening Process Timelines

The following key stages were completed for the screening process:

Date	Stage
April 14, 2022	Receipt of project proposal and positive conformity determination (North Baffin Regional Land Use Plan) from the Commission.
April 14, 2022	Request to complete public registry online and provide information pursuant to s. 144(1) of the <i>NuPPAA</i>
May 15, 2022	Receipt of online application from Proponent
May 16, 2022	Request(s) to Proponent for additional information in order to carry out screening pursuant to s. s. 144(1) of the <i>NuPPAA</i>
May 16, 2022	Proponent responded to information request(s) and provided additional information
May 16, 2022	Scoping pursuant to s. 86(1) of the <i>NuPPAA</i>

Date	Stage
May 25, 2022	Public engagement and comment request
June 1, 2022	Extension of Public Comment Period by request of Nangmautaq Hunters and Trappers Association and the Ittaq Heritage and Research Centre
June 27, 2022	Ministerial extension requested from the Minister of Fisheries and Oceans and the Canadian Coast Guard
June 30, 2022	Receipt of public comments
July 4, 2022	Proponent responded to comments/concerns raised by public
August 31, 2022; September 6, 2022	Proponent provided additional information on community consultation
February 17, 2023	Issuance of Screening Decision Report

2. Project Scope

All documents received and pertaining to this project proposal can be accessed from the NIRB's online public registry at www.nirb.ca/project/125689.

Project:	Investigating Scott Inlet seeps with autonomous underwater vehicles				
Region:	Qikiqtani				
Location:	Open water, 50 kilometres (km) offshore from Scott Inlet				
Closest Community:	Clyde River	Distance (approximate)	60 km	Direction	Northwest
Summary of Project Description:	The Proponent intends to conduct research at a naturally occurring oil seep offshore from Scott Inlet to test the use of autonomous underwater vehicle (AUV) technology to improve oil spill response, measure dissolved and undissolved oil concentrations in the water column, and understand how crude oil and gas reacts within the ocean with different depths and water quality parameters.				
Project Proposed Timeline:	August to September 2023				

As required under s. 86(1) of the *NuPPAA*, the Board accepts the scope of the project as set out by Memorial University in the proposal. The scope of the project proposal includes the following undertakings, works, or activities:

- Use of a ship vessel (either from Nunavut, Greenland, or Newfoundland in which food, water, and waste disposal would occur from where the vessel is from) to carry personnel, equipment, and provide accommodation during field work;
- Potential use of Clyde River's port and community services depending upon vessel selection (If vessel is from Nunavut would request food, water, and waste disposal; planned to be discussed during community consultations August 2022);
- Use of an anchorage location within Scott Inlet if adverse weather occurs;
- Use of a survey class AUV for ten (10) hours a day during field work, and equipped with hydrocarbon sensors selected from a methane sniffer, acoustic scanning sonars and fluorometers, and a water sampling unit; and

- Use of an underwater glider remaining in the water during field work and equipped with hydrocarbon sensors selected from a methane sniffer, acoustic scanning sonars and fluorometers.

3. Inclusion or Exclusion to Scoping List

The NIRB has identified no additional works or activities in relation to the project proposal. As a result, the NIRB proceeded with screening the project based on the scope as described above.

4. Public Comments and Concerns

Notice regarding the NIRB's screening of this project proposal was distributed on May 25, 2022 to community organizations in Clyde River, as well as to relevant federal and territorial government agencies, Inuit organizations and other parties. The NIRB requested that interested parties review the proposal and the NIRB's proposed project-specific terms and conditions, and provide the Board with any comments or concerns by June 3, 2022 regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic or socio-economic effects; and if so, why;
- Whether the project proposal is likely to cause significant adverse impacts on wildlife habitat or Inuit harvest activities; and if so, why;
- Whether the project proposal is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (and providing any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On June 1, 2022, at the request of the Nangmautaq Hunters and Trappers Association and the Ittaq Heritage and Research Centre, the commenting period was extended to June 30, 2022 by the Board.

On or before June 30, 2022 the NIRB received comments from the following interested parties:

- **Hamlet of Clyde River**
- **Nangmautaq Hunters and Trappers Association**
- **Crown-Indigenous Relations and Northern Affairs Canada**
- **Department of Fisheries and Oceans**
- **Ittaq Heritage and Research Centre**

a. Summary of Public Comments and Concerns Received during the Public comment period of this file

The following provides a summary of the comments and concerns received by the NIRB:

Hamlet of Clyde River jointly with Nangmautaq Hunters and Trappers Association, and Ittaq Heritage and Research Centre

- Requested more information be provided on:

- the type and size of vessel to be used;
- other activities that may be carried out on the same vessel such as the Students on Ice program; and
- additional community consultation for the Proponent's planned visit to Clyde River in August 2022;
- Expressed concern that information on collected petroleum resources in the area may be used by industry and how this could be mitigated.
- Requested information for plans if a UAV was disabled or malfunctioned.

Crown-Indigenous Relations and Northern Affairs Canada

- Recommended the Proponent prioritize employment and training of local Inuit and procurement from Inuit-owned businesses in Clyde River.
- Recommended consultation with the of Clyde River and the Nangmautaq Hunters and Trappers Association.

Fisheries and Oceans Canada

- Noted the requirements of the *Marine Mammal Regulation* of the *Fisheries Act* regarding disturbance of marine mammals.
- Noted the Duty to Notify Fisheries and Oceans Canada if causing, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat.

b. Comments and Concerns with respect to Inuit Qaujimaningit, Traditional, and Community Knowledge

The following is a summary of the comments and concerns received with respect to Inuit Qaujimaningit, traditional and community knowledge:

Nangmautaq Hunters and Trappers Association

- The proposed activities take place in a time and place of community narwhal hunting.
- Concern over disruption of hunting activities.
- Concern over the ship moving back and forth between Clyde River and Scott Inlet.

In addition, Inuit Qaujimaningit and traditional and community knowledge is incorporated into the terms and conditions recommended below based on information collected from prior and similar projects, data collected and mapped by the Commission, and other available sources.

5. Proponent's Response to Public Comments and Concerns

On July 4, 2022, the Proponent responded to the concerns raised during the commenting period. The following is a summary of the Proponent's response to concerns as received:

- In response to the concerns of the Hamlet of Clyde River, Nangmautaq Hunters and Trappers Association, and Ittaq Heritage and Research Centre:

- the Proponent intends to avoid areas and periods of narwhal hunting through consultation with the community, and to remain on the vessel for the entire period, and will only enter Scott Inlet to take shelter from bad weather;
- The vessel will be either the M/V *Patrick and William*, a 32 meter fishing vessel from Newfoundland, or the R/V *Sanna*, a 32 meter research vessel from Nuuk;
- There will be no collaboration with the Students on Ice program;
- Detailed location data on petroleum locations will not be published, and
- The UAVs have redundant systems allowing recovery in the event of a problem.
- In response to the comments of Crown-Indigenous Relations and Northern Affairs Canada, the Proponent notes that they intend to collaborate with the community, including the hiring of a local translator and community consultation, as well as possible hiring of residents from Clyde River.
- In response to the comments from Fisheries and Oceans Canada, the Proponent intends to avoid disturbance of marine mammals and follow all applicable protocols and regulations.

6. Time of Report Extension

As a result of the time required to allow for the extended commenting period and response from the Proponent, the NIRB was not able to provide its screening decision report to the responsible Minister within 45 days as required by Article 12, Section 12.4.5 of the *Nunavut Agreement* and s. 92(3) of the *NuPPAA*. Therefore, on June 27, 2022 the NIRB wrote to the Minister of Fisheries and Oceans and the Canadian Coast Guard, Government of Canada, seeking an extension to the 45-day timeline for the provision of the Board's Report.

ASSESSMENT OF THE PROJECT PROPOSAL IN ACCORDANCE WITH PART 3 OF *NuPPAA*

In determining whether a review of the project is required, the Board considered whether the project proposal had potential to result in significant ecosystemic or socio-economic impacts.

Accordingly, the assessment of impact significance was based on the analysis of those factors that are set out under s. 90 of the *NuPPAA*. The Board took particular care to take into account Inuit Qaujimaningit, traditional and community knowledge in carrying out its assessment and determination of the significance of impacts.

The following is a summary of the Board's assessment of the factors that are relevant to the determination of significant impacts with respect of this project proposal:

Factor	Comment
The size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts.	<ul style="list-style-type: none"> ▪ The physical footprint of the proposed project components is off the coast of Baffin Island in an area approximately 50 kilometers from Scott Inlet. ▪ The proposed project would take place within habitats wildlife species such as migratory birds, and marine mammals.

Factor	Comment
The ecosystemic sensitivity of that area.	<ul style="list-style-type: none"> ▪ No specific areas of ecosystemic sensitivity have been identified by the Proponent within the physical footprint of the proposed project.
The historical, cultural and archaeological significance of that area.	<ul style="list-style-type: none"> ▪ As the project is entirely marine-based, no specific areas of historical, cultural and archaeological significance have been identified by the Proponent within the physical footprint of the proposed project and are highly unlikely to be encountered.
The size of the human and the animal populations likely to be affected by the impacts.	<ul style="list-style-type: none"> ▪ The proposed project is unlikely to result in impacts to local human and animal populations.
The nature, magnitude and complexity of the impacts; the probability of the impacts occurring; the frequency and duration of the impacts; and the reversibility or irreversibility of the impacts.	<ul style="list-style-type: none"> ▪ A zone of influence of up to 50 km from the most potentially-disruptive project activities was selected for the NIRB's assessment. ▪ With adherence to the relevant regulatory requirements and application of the mitigation measures recommended by the NIRB, no significant residual effects are expected to occur.
The cumulative impacts that could result from the impacts of the project combined with those of any other project that has been carried out, is being carried out or is likely to be carried out.	<ul style="list-style-type: none"> ▪ The NIRB has not identified any past, present, and reasonably foreseeable projects at this time; however, the mitigation measures recommended by the NIRB have been designed to reduce cumulative effects should projects occur in the area in the future.
Any other factor that the Board considers relevant to the assessment of the significance of impacts.	<ul style="list-style-type: none"> ▪ The project will provide information on naturally-occurring oil seeps of the coast and on the effects of petroleum released into the Arctic marine environment.

Views of the Board

In considering the factors as set out above in the screening of the project proposal, the NIRB has identified a number of issues below and respectfully provide the following views regarding whether or not the proposed project has the potential to result in significant impacts. In addition, the NIRB has proposed terms and conditions that would mitigate the potential adverse impacts identified.

The NIRB has listed specific Acts and Regulations below that may be applicable to the project proposal but this list should not be considered as a complete list and the Proponent is responsible to ensure that it follows all Acts and Regulations that may be applicable to the project proposal.

Ecosystem, wildlife habitat and Inuit harvesting activities:

Valued Component	Marine mammals, fish, migratory birds and Species at Risk
Potential effects:	Marine mammals, fish, migratory birds and Species at Risk due to disturbance of vessel operations and research activities.
Nature of Impacts:	Marine mammals, fish, migratory birds and Species at Risk may be disturbed by vessel presence and noise generation, as well as use of autonomous underwater vehicles to conduct scientific research and collection of data.
Mitigating Factors:	Adverse impacts are expected to be minimal due to the limited nature of project activities and the temporary and brief operational period. The research proposed is of low impact to wildlife and the environment and is not expected to have lasting impact. Additional impacts from vessel operations are expected to be mitigated through following appropriate regulations, best practices, and the recommended Terms and Conditions.
Proposed Terms and Conditions:	Fuel and Chemical Storage – 11 Wildlife General – 13 through 15 Migratory Birds and Raptor Disturbance – 16 through 18 Marine-Based Activities – 19 through 29
Related Acts and/or Regulations:	<ol style="list-style-type: none"> 1. The <i>Fisheries Act</i> (http://laws-lois.justice.gc.ca/eng/acts/F-14/index.html). 2. The <i>Migratory Birds Convention Act</i> and <i>Migratory Birds Regulations</i> (http://laws-lois.justice.gc.ca/eng/acts/M-7.01/). 3. The <i>Species at Risk Act</i> (http://laws-lois.justice.gc.ca/eng/acts/S-15.3/index.html). Attached in Appendix A is a list of Species at Risk in Nunavut. 4. The <i>Wildlife Act (Nunavut)</i> and its corresponding regulations (http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html). 5. The <i>Transportation of Dangerous Goods Act</i> (http://laws-lois.justice.gc.ca/eng/acts/t-19.01/) and the <i>Transportation of Dangerous Goods Regulations</i> (http://www.tc.gc.ca/eng/tdg/clear-tofc-211.htm). 6. The <i>Arctic Waters Pollution Prevention Act</i> (http://laws-lois.justice.gc.ca/eng/acts/A-12/) and the <i>Arctic Shipping Safety and Pollution Prevention Regulations</i> (https://laws-lois.justice.gc.ca/eng/regulations/SOR-2017-286/index.html).

Valued Component	Water quality and marine habitat
Potential effects:	Potential adverse effects on water quality and marine habitat due to fuel/lubricant spills, chemical release, or improper disposal of waste

Nature of Impacts:	Water quality may be affected in the event of a spill or release of fuel, lubricants or other chemical, and improper disposal of waste (including waste water) from vessel operations.
Mitigating Factors:	Risks of adverse impacts are expected to be minimal due to the temporary and brief operational period. Impacts from vessel operations are expected to be mitigated through following appropriate regulations, best practices, and the recommended Terms and Conditions.
Proposed Terms and Conditions:	Water courses/Water Bodies – 6 Waste Management – 7 and 8 Fuel and Chemical Storage – 9 through 12
Related Acts and/or Regulations:	<ol style="list-style-type: none"> 1. The <i>Canada Shipping Act, 2001</i> (http://laws-lois.justice.gc.ca/eng/acts/C-10.15/). 2. The <i>Arctic Waters Pollution Prevention Act</i> (http://laws-lois.justice.gc.ca/eng/acts/A-12/) and the <i>Arctic Shipping Safety and Pollution Prevention Regulations</i> (https://laws-lois.justice.gc.ca/eng/regulations/SOR-2017-286/index.html). 3. The <i>Marine Liability Act</i> (http://laws-lois.justice.gc.ca/eng/acts/M-0.7/). 4. The <i>Fisheries Act</i> (http://laws-lois.justice.gc.ca/eng/acts/F-14/index.html). 5. The <i>Transportation of Dangerous Goods Act</i> (http://laws-lois.justice.gc.ca/eng/acts/t-19.01/) and the <i>Transportation of Dangerous Goods Regulations</i> (http://www.tc.gc.ca/eng/tdg/clear-tofc-211.htm).

Valued Component	Inuit Harvesting
Potential effects:	Potential adverse impacts to hunting (including for narwhal) in Scott Inlet due to project activities.
Nature of Impacts:	Potential impacts to Inuit hunting and traditional activities due the presence of a vessel in Scott Inlet.
Mitigating Factors:	<p>The Proponent has committed to consulting with Clyde River in order to determine times and places of narwhal hunting to avoid interference. Further, the Proponent has noted their vessel intends to operate offshore for the duration of the project and will only enter Scott Inlet for temporary shelter in the event of bad weather.</p> <p>Additionally, the Board is recommending terms and conditions to ensure project activities are informed by available Inuit Qaujimaningit and that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.</p>
Proposed Terms and Conditions:	Other – 30 and 31

Related Acts and/or Regulations:	1. The <i>Nunavut Act</i> (http://laws-lois.justice.gc.ca/eng/acts/N-28.6/).
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Socio-economic effects on northerners:

Valued Component	Inuit Employment, Training, and Local Procurement
Potential effects:	Potential positive impacts through employment and training of residents of Clyde River and procurement of supplies from local businesses.
Nature of Impacts:	The Proponent has stated they have budgeted funds that may be available for local hires and to provide training opportunities. They have also noted the hiring of a local translator and the search for a university graduate student from the area to participate in the project.
Mitigating Factors:	n/a
Proposed Terms and Conditions:	Other – 32
Related Acts and/or Regulations:	n/a

Significant public concern:

Valued Component	Petroleum Exploration
Potential effects:	Release of data providing information on petroleum resources in the research area that could be used by industry for petroleum exploration and exploitation
Nature of Impacts:	Concern that the availability of information may encourage industry to advance petroleum development in the area.
Mitigating Factors:	<p>The Proponent indicates that detailed information on the location of the oil seeps will not be released.</p> <p>The Board notes that the location of the oil seeps and information regarding the presence of petroleum resources in the area has been public since the discovery of the seeps in 1976, and that the activities of this project are unlikely to increase interest from industry over that which is already available. The Board further notes the current moratorium on petroleum exploration and development in Arctic waters by the government of Canada would not allow development in any case.</p>
Proposed Terms and Conditions:	n/a
Related Acts and/or Regulations:	n/a

Technological innovations for which the effects are unknown:

- No specific issues have been identified associated with this project proposal.

Administrative Conditions:

To encourage compliance with applicable regulatory requirements and assist the Board and responsible authorities with compliance and effects monitoring for project activities, the following project-specific terms and conditions have been recommended: 1-5.

In considering the above factors and subject to the Proponent's compliance with the terms and conditions necessary to mitigate against the potential adverse environmental and social effects, the Board is of the view that the proposed project is unlikely to cause significant public concern and its adverse ecosystemic and socioeconomic impacts are unlikely to be significant, or are highly predictable and can be adequately mitigated by known technologies.

RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS

The Board is recommending the following specific terms and conditions to apply in respect of the project:

General

1. Memorial University (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times and make it accessible to enforcement officers upon request.
2. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (NPC File No.: 149723), to the Department of Fisheries and Oceans, and the NIRB (Online Application Form, May 16, 2022; NIRB Application Attachments, May 16, 2022, additional information submitted on July 4, 2022 and September 6, 2022). This information should be accessible to enforcement officers upon request.
3. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.
4. The Proponent shall ensure that it meets the standards and/or limits as set out in the authorizing agencies' permits or licences as required for this project.
5. The Proponent shall ensure that all personnel, staff, and contractors are adequately trained prior to commencement of all project activities, and shall be made aware of all operational plans, management plans, guidelines and Proponent commitments relating to the project.

Water courses/Water bodies (including fresh and marine waters)

6. The Proponent shall not deposit, nor permit the deposit of any fuel, chemicals, wastes (including wastewater) or sediment into any water body. The Proponent should have in place an Emergency Spill Response Plan that is approved by the appropriate authorizing agency(ies).

Waste Management

7. The Proponent shall manage all hazardous and non-hazardous waste including food, domestic wastes, debris, and petroleum-based chemicals (e.g., greases, gasoline, glycol-based antifreeze) in such a manner to avoid release into the environment and access to wildlife at all times until disposed of appropriately or at an approved facility.

8. The Proponent shall follow the authorizing agencies' direction for management and removal of hazardous materials and wastes.

Fuel and Chemical Storage

9. All fuel and chemical storage containers must be clearly marked with the Proponent's name for ease of identification.
10. The Proponent shall have a Spill Contingency Plan in place at all fuel storage or transfer locations and shall ensure that appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) are readily available.
11. The Proponent shall ensure that wildlife deterrent systems are utilized at the time of a spill incident in order to avoid wildlife (terrestrial or marine) and migratory birds from being contaminated.
12. The Proponent shall ensure that all spills of fuel or other deleterious materials of 100 litres or more must be reported immediately to the 24-hour Spill Line at (867) 920-8130.

Wildlife – General

13. The Proponent shall not substantially alter or damage or destroy any wildlife habitat in conducting this operation unless otherwise authorized by the appropriate authorizing agencies.
14. The Proponent shall not chase, weary, harass or molest wildlife. This includes persistently circling, chasing, hovering over, pursuing or in any other way harass wildlife, or disturbing large groups of animals.
15. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.

Migratory Birds and Raptors Disturbance

16. The Proponent shall carry out all phases of the project in a manner that protects migratory birds and avoids harming, killing, or disturbing migratory birds or destroying, disturbing, or taking their nests or eggs. In this regard, the Proponent shall take into account Environment and Climate Change Canada's *Avoidance Guidelines*. The Proponent's actions in applying the *Avoidance Guidelines* shall be in compliance with the *Migratory Birds Convention Act, 1994* and with the *Species at Risk Act*.
17. The Proponent shall avoid the seaward site of seabird colonies and areas used by flocks of migrating waterfowl, a minimum distance away on the recommendation of the appropriate authorizing agencies.
18. The Proponent shall not pursue seabirds or waterbirds swimming on the water surface and shall avoid concentrations of these birds if encountered on the water.

Marine-Based Activities

19. The Proponent shall, where practicable, coordinate with other vessels to minimize simultaneous vessel traffic in critical wildlife habitat areas allowing the wildlife to continue to use the habitat undisturbed.
20. The Proponent shall ensure that noise be kept to a minimum and shall refrain from making sharp or loud noises, blowing horns or whistles and shall maintain constant engine noise levels.

21. The Proponent shall not visit cliffs used by nesting and breeding birds during the late afternoon or early evening hours during the months of August and September.
22. The Proponent shall anchor large vessels at least 500 metres away from seabird and sea duck breeding colonies except Ivory gull breeding sites which requires a setback distance of 2,000 metres. Further, the Proponent shall ensure small launch vessels (e.g., zodiacs, kayaks) maintain a distance of 100 metres from the seabird colonies.
23. The Proponent shall not attempt to intersect or interfere with the movements of marine mammals. This includes ensuring that there are no wake zones within 250 metres and a minimum of 100 metre no go zone around marine mammals. Strategic positioning of vessels ahead of the path being traveled by mobile mammals and waiting for the mammals to pass is also prohibited.
24. When marine mammals appear to be trapped or disturbed by vessel movements, the Proponent shall implement appropriate measures to mitigate disturbance, including stoppage of movement until wildlife have moved away from the immediate area.
25. The Proponent shall maintain a distance of 100 metres if a polar bear is encountered on land or ice while conducting activities from a zodiac or other small craft; all interaction with polar bears should be avoided if possible.
26. The Proponent shall maintain a distance of 500 metres of a walrus haul out while conducting activities from a zodiac or other small craft.
27. The Proponent shall suspend all project activities should any dead fish or wildlife (both marine and terrestrial), or any injured wildlife be observed during any works or activities in and around the marine waters. Activities may only be resumed on the recommendation of the authorizing agencies.
28. The Proponent shall report all incidents, injuries, or sightings of marine mammals to the appropriate authorizing agencies.
29. The Proponent shall implement measures designed to minimize disturbance to seabed sediments and benthic communities and marine wildlife when carrying out project activities within the marine environment.

Other

30. The Proponent should engage with local residents regarding planned activities in the area and should solicit available Inuit Qaujimaningit and information regarding current recreational and traditional usage of the project area which may inform project activities. Posting of translated public notices and direct engagement with potentially interested groups and individuals prior to undertaking project activities is strongly encouraged.
31. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.
32. The Proponent should, to the extent possible, hire local people and access local services where possible.

MONITORING AND REPORTING REQUIREMENTS

In addition, the Board is recommending the following:

Wildlife Mitigation and Monitoring Plan

1. Prior to the start of project activities, the Proponent shall submit an updated Wildlife Mitigation and Monitoring Plan (WMMP) to the Nunavut Impact Review Board, Government of Nunavut Department of Environment, and Fisheries and Oceans Canada. At a minimum, this plan should include proposed template for a wildlife log/record of observations and proposed mitigation measures for marine mammals, migratory birds, and other sensitive species that may be encountered within the project area. The Proponent is encouraged to consult with the Government of Nunavut's Regional Biologists during the revision of the WMMP, regarding project schedule and timelines so as to ensure adequate mitigation of potential wildlife impacts.

Spill Contingency Plan

2. The Proponent shall update its Spill Contingency Plan to include the up to date emergency contact numbers for the Government of Nunavut-Department of Environment, Manager of Environmental Protection (867-975-7748) and Environment and Climate Change Canada, Enforcement Branch (867-975-4644).

OTHER NIRB CONCERNS AND RECOMMENDATIONS

In addition to the project-specific terms and conditions, the Board is recommending the following:

Change in Project Scope

1. Responsible authorities or Proponent shall notify the Nunavut Planning Commission and/or Parks Canada as appropriate, and the NIRB of any changes in operating plans or conditions, including phase advancement, associated with this project prior to any such change.

Copy of licences, etc. to the Board and Commission

2. The NIRB respectfully requests that responsible authorities submit a copy of each licence, permit or other authorization issued for the Project to the NIRB to assist in enabling possible project monitoring that may be required. Please forward a copy of the licences, permits and/or other authorizations to the NIRB directly at info@nirb.ca or upload a copy to the NIRB's online registry at www.nirb.ca.

Use of Inuit Qaujimaningit

3. The Proponent is encouraged to work with local communities and knowledge holders to inform project design, to carry out the project, and to confirm or validate the perspectives represented in publications, and reports produced as part of the project. Care should be taken to ensure that Inuit Qaujimaningit and local knowledge collected for the project is used with permission and is accurately represented.

Species at Risk


4. The Proponent review Environment and Climate Change Canada's "Environment Assessment Best Practice Guide for Wildlife at Risk in Canada", available at the following link:

http://www.sararegistry.gc.ca/virtual_sara/files/policies/EA%20Best%20Practices%202004.pdf. The guide provides information to the Proponent on what is required when Wildlife at Risk, including *Species at Risk*, are encountered or affected by the project.

CONCLUSION

The foregoing constitutes the Board's screening decision with respect to the Memorial University's "Investigating Scott Inlet seeps with autonomous underwater vehicles". The NIRB remains available for consultation with the Minister regarding this report as necessary.

Dated February 17, 2023 at Baker Lake, NU.


Kaviq Kaluraq, Chairperson

Attachments: Appendix A: Species at Risk in Nunavut

APPENDIX A: SPECIES AT RISK IN NUNAVUT

Due to the requirements of Section 79(2) of the Species at Risk Act (SARA), and the potential for project-specific adverse effects on listed wildlife species and its critical habitat, measures should be taken as appropriate to avoid or lessen those effects, and the effects need to be monitored. Project effects could include species disturbance, attraction to operations and destruction of habitat. This section applies to all species listed on Schedule 1 of SARA, as listed in the table below, or have been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), which may be encountered in the project area. This list may not include all species identified as at risk by the Territorial Government. The following points provide clarification on the applicability of the species outlined in the table.

- Schedule 1 is the official legal list of Species at Risk for SARA. SARA applies to all species on Schedule 1. The term “listed” species refers to species on Schedule 1.
- Schedule 2 and 3 of SARA identify species that were designated at risk by the COSEWIC prior to October 1999 and must be reassessed using revised criteria before they can be considered for addition to Schedule 1.
- Some species identified at risk by COSEWIC are “pending” addition to Schedule 1 of SARA. These species are under consideration for addition to Schedule 1, subject to further consultation or assessment.

If species at risk are encountered or affected, the primary mitigation measure should be avoidance. The Proponent should avoid contact with or disturbance to each species, its habitat and/or its residence. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the species at risk Registry at <http://www.sararegistry.gc.ca> for information on specific species.

Monitoring should be undertaken by the Proponent to determine the effectiveness of mitigation and/or identify where further mitigation is required. As a minimum, this monitoring should include recording the locations and dates of any observations of species at risk, behaviour or actions taken by the animals when project activities were encountered, and any actions taken by the proponent to avoid contact or disturbance to the species, its habitat, and/or its residence. This information should be submitted to the appropriate regulators and organizations with management responsibility for that species, as requested.

For species primarily managed by the Territorial Government, the Territorial Government should be consulted to identify other appropriate mitigation and/or monitoring measures to minimize effects to these species from the project.

Mitigation and monitoring measures must be undertaken in a way that is consistent with applicable recovery strategies and action/management plans.

Schedules of SARA are amended on a regular basis so it is important to check the SARA registry (www.sararegistry.gc.ca) to get the current status of a species.

Updated: September 2019

Terrestrial Species at Risk¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility²
Migratory Birds			
Buff-breasted Sandpiper	Special Concern	Schedule 1	Environment and Climate Change Canada (ECCC)
Common Nighthawk	Threatened	Schedule 1	ECCC
Eskimo Curlew	Endangered	Schedule 1	ECCC
Harlequin Duck	Special Concern	Schedule 1	ECCC
Harris's Sparrow	Special Concern	Schedule 1	ECCC
Horned Grebe	Special Concern	Schedule 1	ECCC
Ivory Gull	Endangered	Schedule 1	ECCC
Olive-sided Flycatcher	Threatened	Schedule 1	ECCC
Peregrine Falcon	Special Concern	Schedule 1	ECCC
Red Knot Islandica Subspecies	Special Concern	Schedule 1	ECCC
Red-necked Phalarope	Special Concern	Schedule 1	ECCC
Ross's Gull	Threatened	Schedule 1	ECCC
Rusty Blackbird	Special Concern	Schedule 1	ECCC
Short-eared Owl	Special Concern	Schedule 1	ECCC
Vegetation			
Porsild's Bryum	Threatened	Schedule 1	Government of Nunavut (GN)
Arthropods			
Transverse Lady Beetle	Special Concern	No Schedule	GN
Terrestrial Wildlife			
Caribou (Dolphin and Union Population)	Endangered	Schedule 1	GN
Caribou (Barren-ground Population)	Threatened	No Schedule	GN
Caribou (Torngat Mountains Population)	Endangered	No Schedule	GN
Grizzly Bear (Western Population)	Special Concern	Schedule 1	ECCC
Peary Caribou	Endangered	Schedule 1	GN
Polar Bear	Special Concern	Schedule 1	ECCC
Wolverine	Special Concern	Schedule 1	GN
Marine Wildlife			
Atlantic Walrus (High Arctic Population)	Special Concern	No Schedule	Fisheries and Oceans Canada (DFO)
Atlantic Walrus (Central/Low Arctic Population)	Special Concern	No Schedule	DFO
Beluga Whale (Cumberland Sound Population)	Threatened	Schedule 1	DFO
Beluga Whale (Eastern Hudson Bay Population)	Endangered	No Schedule	DFO

1 The Department of Fisheries and Oceans has responsibility for aquatic species.

2 Environment and Climate Change Canada (ECCC) has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the Migratory Birds Convention Act (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency.

Terrestrial Species at Risk¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility²
Beluga Whale (Eastern High Arctic-Baffin Bay Population)	Special Concern	No Schedule	DFO
Beluga Whale (Western Hudson Bay Population)	Special Concern	No Schedule	DFO
Fish			
Atlantic Cod (Arctic Lakes Population)	Special Concern	No Schedule	DFO
Fourhorn Sculpin (Freshwater Form)	Data Deficient	Schedule 3	DFO
Lumpfish	Threatened	No Schedule	DFO
Thorny Skate	Special Concern	No Schedule	DFO