SCREENING DECISION REPORT
NIRB FILE No.: 25YN073

NPC File No.: 150914

January 15, 2026

Following the Nunavut Impact Review Board's (NIRB or Board) assessment of all materials provided, the NIRB is recommending that a review of Memorial University of Newfoundland's "ArcSolution: Emerging Pollutants and Health in the Arctic" is not required pursuant to Article 12, Section 12.4.4(a) of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (*Nunavut Agreement*) and s. 92(1)(a) of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (*NuPPAA*).

Subject to the Proponent's compliance with the terms and conditions as set out in below, issued in accordance with s. 92(2)(a) of *NuPPAA*, the NIRB is of the view that the project proposal is not likely to cause significant public concerns, and it is unlikely to result in significant adverse environmental and social impacts. The NIRB therefore recommends that the responsible Minister accepts this Screening Decision Report.

OUTLINE OF SCREENING DECISION REPORT

REGULATORY FRAMEWORK

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*. The purpose of screening is provided for under Article 12, Section 12.4.1 of the *Nunavut Agreement* and s. 88 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 indicating one of three options:

(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.

PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

On September 9, 2025, the NIRB received a referral to screen Memorial University of Newfoundland's "ArcSolution: Emerging Pollutants and Health in the Arctic" project proposal (NIRB File No: 25YN073) from the Nunavut Planning Commission (Commission), which noted that the project proposal is outside the area of an applicable land use plan. All documents received and pertaining to this project proposal can be accessed from the NIRB's Public Registry by using any of the following search criteria or www.nirb.ca/project/126243.

- Project Name: ArcSolution: Emerging Pollutants and Health in the Arctic
- NIRB File No.: 25YN073
- NIRB Application No.: 126243

Table 1: NIRB's Assessment Process

Date	Stage
September 9, 2025	Receipt of project proposal referral from the Commission
October 10, 2025	Pursuant to s. 144(1) of the *NuPPAA* the NIRB requested the Proponent complete an online application to address information required for Screening
October 15, 2025	Receipt of online application from Proponent
October 15, 2025	Scoping pursuant to s. 86(1) of the *NuPPAA*
November 7, 2025	Public engagement and comment request (which included draft terms and conditions) was issued in English
November 17, 2025	Receipt of public comments
November 26, 2025	Pursuant to Article 12 s 12.4.5 of the *Nunavut Agreement* and s. 92(3) of the *NuPPAA*, an extension to the 45-day timeline for the provision of the Board's Report was requested from the Minister of Fisheries
January 15, 2026	Issuance of Screening Decision Report

1. Project Scope

Location	Kitikmeot region, Cambridge Bay and its adjacent areas, lagoons, and costal marine environments

Objective	The Proponent intends to collect water, sediment/soil, permafrost, and fish samples (obtained from local harvesters), three to four times a year, to conduct contaminants research
Timeline	September 20, 2025, to March 31, 2027. A total of 20 sampling days in this time period.

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

- Use of Arctic Research Foundation's vessel or locally chartered boats to non-invasively collect marine water samples;
- Use of ATVs or snowmachines as transport to non-invasively collect terrestrial samples of sediment/soil and permafrost using a soil auger;
- Obtain fish samples from local harvesters;
- Back in their lab, use the samples to reproduce Arctic-like conditions to see how pollutants change over time, move through simple food chains, and build up; and
- Community consultation prior and during fieldwork. Share results with the community and territorial stakeholders throughout the project.
- Where applicable, the project may include informal opportunities for local participation or knowledge sharing during field activities; however, no formal capacity-building or training program is proposed as part of the project.
- All proposed activities are low-impact, non-invasive scientific research activities and do not involve the construction of permanent infrastructure or long-term land disturbance.

2. 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 will proceed with screening the project based on the scope as described above.

3. Public Comments and Concerns

As outlined in Table 1 above, notices regarding the NIRB's screening of this project proposal were distributed to community organizations as well as to relevant federal and territorial government agencies, Inuit organizations and other parties with a request for interested parties to provide the Board with any comments or concerns 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.

Additionally, proposed project-specific terms and conditions, should the project proceed, were

attached for consideration and comment.

On or before November 17, 2025, the NIRB received comments from the following interested parties:

Table 2: Comments Received

Commenting Party	NIRB Doc ID No.
Kitikmeot Inuit Association (KitIA)	357848
Government of Nunavut (GN)	357958
Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)	357937
Transport Canada (TC)	357938

a. Summary of Comments and Concerns Received

The following provides a summary of the comments and concerns received by the NIRB in relation to the ArcSolution: Emerging Pollutants and Health in the Arctic project proposal:

(KitIA)

- KitIA recommends that coordination with local, long-term land users such as Ekaluktutiak Hunters & Trappers Organization is necessary to ensure safety when collecting data in the field. That it is also expected that the Proponent work closely with local partners for knowledge of the land when collecting physical data.
- Remain mindful of local wildlife sensitivity periods, including bird nesting and fish habitat when collecting physical data.
- Supports the methods described in the data collection. And encourages adherence to "leave-no-trace" principles, and recommends that all food, waste, and other potential wildlife attractants be securely stored in sealed, animal-resistant containers to minimize the risk of wildlife interactions.
- That annual engagement with the co-management committee and Cambridge Bay community is expected.
- Prioritize Inuit employment and advertise these opportunities locally. Where possible have youth mentorship or training in research methods are also encouraged.
- Preparation of plain language summaries, maps, or visuals to help make research outcomes accessible to local communities. Translation into Inuinnaqtun is recommended.

(GN)

- Has reviewed the proposed project and related documents and has no comments or concerns to raise with the Board at this time.

(CIRNAC)

- While sampling near municipal infrastructure, CIRNAC recommends that the Proponent considers:
    - Maintaining buffer zones from water intakes, lagoon outfalls, and landfill drainage paths;
    - Avoiding intrusive sampling within 31m of the high water mark;

- Implementing site-specific drainage controls to minimize runoff into nearby waterbodies during thaw and rainfall events;
- As well as reclaiming disturbed areas by backfilling, recontouring, and stabilizing soils prior to the end of each field season to prevent erosion and sediment transport.

- CIRNAC recommends that the Proponent continue its efforts to engage with the Municipality of Cambridge Bay, the Ekaluktutiak Hunters & Trappers Organization, the Kitikmeot Inuit Association, the Pitquhirnikkut Ilihautiniq (Kitikmeot Heritage Society), and any other relevant organizations and individuals who may have an interest in its project proposal Incorporate Inuit Qaujimajatuqangit and Community Knowledge in addition to scientific ways of knowing.

(TC)

- Has reviewed the project proposal and does not have any comments. No project components fall within TC's mandate.

4. *b.* Comments and Concerns with respect to Inuit Qaujimaningit, Indigenous and Community Knowledge

The following is a summary of the concerns or comments received with respect to Inuit Qaujimaningit, Indigenous and Community Knowledge with respect to the project proposal:

Kitikmeot Inuit Association

- Incorporate Inuit Qaujimajatuqangit into research planning and data interpretation. This may include using Inuinnaqtun place names, observations of wildlife and land conditions from elders and harvesters, and consideration of community priorities when adjusting study design.

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. Table 3. The Board took particular care to consider Inuit Qaujimaningit, Indigenous and Community Knowledge in carrying out its assessment and determination of the significance of impacts.

Table 3: Summary of the Board's Assessment of Factors s. 90 *NuPPAA*

Factor	Comment
The size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts.	▪ The physical footprint of the proposed project components is within the municipal boundaries of Cambridge Bay and in Dease Strait. Sampling locations are discrete and temporary. ▪ While project activities occur within the broader geographic ranges of migratory and non-migratory birds and terrestrial species such as arctic fox and arctic hare, the spatial extent of disturbance is

Factor	Comment
	minimal, localized, and non-invasive, and is not expected to result in habitat loss, fragmentation, or wildlife displacement.
The ecosystemic sensitivity of that area.	▪ No specific areas of ecosystemic sensitivity have been identified by the Proponent within the physical footprint of the proposed project. However, the broader Cambridge Bay and Dease Strait environment is inherently ecologically sensitive, and that potential interactions are minimal due to the small, temporary, and non-invasive nature of the project activities.
The historical, cultural and archaeological significance of that area.	▪ No specific areas of historical, cultural and archaeological significance have been identified by the Proponent within the physical footprint of the proposed project. However, the broader Cambridge Bay and Dease Strait area has high cultural and historical significance and archaeological potential due to long-standing Inuit land use, and that activities should be undertaken with appropriate community coordination to avoid disturbance to known or previously unrecorded cultural resources.
The size of the human and the animal populations likely to be affected by the impacts.	▪ The proposed project is unlikely to result in impacts to local human and animal populations. Any potential interactions with humans or animals would be limited to small numbers of individuals in the immediate vicinity of sampling sites, would be temporary and incidental, and are not expected to result in population-level effects.
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.	▪ A zone of influence of up to 5 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.	▪ Table 4 is a list of past, present and reasonably foreseeable projects. The Board recommended terms and conditions along with mitigation measures designed with consideration for the potential for cumulative effects in the Board Views section.
Any other factor that the Board considers relevant to the assessment of the significance of impacts.	▪ No other relevant factors were identified; however, see below for Regulatory Requirements mandating mitigation and/or reporting.

Regulatory Requirements

The Proponent is also advised that the following legislation may apply to the Project:
Acts and Regulations

1. The *Fisheries Act* (http://laws-lois.justice.gc.ca/eng/acts/F-14/index.html).

2. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (http://laws-lois.justice.gc.ca/eng/acts/n-28.8/).

3. The *Wildlife Act (Nunavut)* and its corresponding regulations (http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html).

4. The *Nunavut Act* (http://laws-lois.justice.gc.ca/eng/acts/N-28.6/). The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix B**.

5. The Canadian Environmental Protection Act (http://laws-lois.justice.gc.ca/eng/acts/C-15.31/).

Table 4: Past, Present, and Reasonably Foreseeable Projects Considered

NIRB Project Number	Project Title	Project Type
Proposed Developments – undergoing assessment		
25XN022	Cambridge Bay Solar + Storage	Power Plant
25YN081	Copernicus Expansion Missions Sea Ice Experiment (CEMSIE)	Research
25TN031	Eagle Eye Tours Wildlife Tours	Tourism
Present Projects – approved or in operation		
25YN037	Assessment of population dynamics of waterfowl in the central Arctic	Research
24YN033	Cambridge Bay Air Quality	Research
25YN044	Characterization of Shoreline Litter in the Canadian Arctic	Research
25YN003	IceBird Winter 2025	Research
24YN040	Inuit Qaujisarnirmut Pilirijjutit on Arctic Shipping Risks in Inuit Nunangat	Research
25YN043	Monitoring the movement, habitat use, and overall health and function of Arctic fishes across freshwater and marine ecosystems in the Cambridge Bay area	Research
Past Projects		
23YN029	Arctic Expedition – Sailing the Northwest Passage	Research
25YN039	Assessing the ecological risk associated with critical mineral extraction and low-sulfur fuels in Northern ecosystems	Research
23YN037	Cambridge Bay Water Safety Research	Research

NIRB Project Number	Project Title	Project Type
23YN038	Environmental Behavior of Ammunition Constituents in Arctic Conditions	Research
23TN028	Fridtjof Nansen – 2023 Northwest Passage	Tourism
23YN007	Geothermal Energy Potential at Cambridge Bay and Resolute Bay	Research
23YN016	Inuit Qaujisarnirmut Pilirijjutit on Arctic Shipping Risks in Inuit Nunangat	Research
24TN051	One Ocean Expedition – Norwegian tall ship through Northwest Passage and the Nunavut region in 2025	Research
23YN025	OPP 2.0 Baseline Shoreline Mapping	Research
23UN006	Over the top: The northwest Passage Expedition	Tourism
23YN022	Rapid assessment of tundra plant diversity using small bits of genetic code found in the soil	Research
23YN044	Real Ice – November Field Test with CHARS in Cambridge Bay, Canada	Research
24XN035	Sealift laydown Area	Coastal Infrastructure
25YN023	Vermont State University	Research

VIEWS OF THE BOARD

In considering the above factors, the Board has identified the following and respectfully provides its views regarding whether or not the proposed project has the potential to result in significant impacts. The NIRB has also proposed terms and conditions that would mitigate the potential adverse impacts identified.

Ecosystem, wildlife habitat and Inuit harvesting activities:

Valued Component	Migratory and non-migratory birds, terrestrial and Species at Risk
Potential effects:	Potential adverse effects to migratory and non-migratory birds, Species at Risk, terrestrial, and their migratory routes from noise and visual disturbance generated from daily transportation of personnel and equipment via all-terrain vehicles, boats and snowmobiles to the proposed research sites to conduct research activities.
Nature of Impacts:	The potential for impact(s) is considered to be limited due to the temporary activities, and due to infrequent activities within sensitive wildlife temporal periods. Project activities, such as transport of personnel and research activities, could potentially disturb wildlife and migratory birds with home range sizes habituated to the project area; however, any resulting impacts would be expected to be reversible and temporary only.

Mitigating Factors:	The Board is recommending terms and conditions to minimize and mitigate potential adverse impacts to terrestrial wildlife and migratory birds.
Proposed Terms and Conditions:	Waste Management – 8 and 9 Wildlife (General) – 10 to 13 Migratory Birds and Raptors Disturbance – 14 to 17

Valued Component	Marine mammals and marine habitat
Potential effects:	Potential adverse impacts to marine mammals and marine habitat (e.g., fish and benthic populations) resulting from increased noise and/or physical disturbance associated with the boat operations and research activities.
Nature of Impacts:	The potential for impacts is applicable to small areas within and around Cambridge Bay and Dease Strait, and the probability of impacts occurring is considered to be low, with potential adverse effects anticipated to be low in magnitude, infrequent in occurrence and reversible in nature. However, as noted cumulative effects on marine wildlife and marine habitat could occur if multiple vessels are encountered in the same area.
Mitigating Factors:	Measures should be taken to be aware of vessel operations including speed, awareness, and avoidance of wildlife to minimize adverse impacts to the marine wildlife, particularly in critical habitat, calving areas, and narrow migration corridors. The Board is recommending terms and conditions to ensure the project activities do not negatively affect marine wildlife and habitat.
Proposed Terms and Conditions:	Water courses/Water bodies – 6 and 7 Waste Management – 8 and 9 Wildlife (General) – 10 to 13 Marine-based activities – 23 to 26

Valued Component	Surface water quality, fish and fish habitat, soil and vegetation
Potential effects:	Potential adverse impacts to the aquatic environment, the terrestrial land and vegetation from the use of all-terrain vehicles and boats to access research sites, and some of the research activities such as collection of water, soil, and fish. Fish samples to be obtained from local harvesters.
Nature of Impacts:	The potential impacts are applicable to the areas being research near each community and the probability of impacts occurring is considered to be low, with potential adverse effects anticipated to be low in magnitude, infrequent in occurrence and reversible in nature.
Mitigating Factors:	The Proponent has indicated that all sites can be accessed on gravel roads by all-terrain vehicles in the summer and over snow and ice by snowmobile in the winter. Proposed sampling will be non-invasive, have limited footprint, and site reclamation after fieldwork. The Board is recommending terms and conditions to ensure the proposed project activities do not negatively affect the land, terrestrial

	vegetation, ground stability, and the aquatic environment. Further, the Board recommends the Proponent follows regulatory authorities' guidance and engage community members to avoid, reduce and off set the harm to freshwater fish and fish habitat.
Proposed Terms and Conditions:	Water courses/Water bodies – 6 and 7 Waste Management – 8 and 9 Land Use and Restoration of Disturbed Areas – 18 to 22

Valued Component	Public and Traditional Land Use Activities
Potential effects:	No specific concerns or impacts to public and traditional land use activities in the area have been identified, however, 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.
Nature of Impacts:	The potential for impacts is considered to be minimal due to the temporary and low-impact nature of the activities, and any resulting impacts would be expected to be reversible.
Mitigating Factors:	The Board is recommending the Proponent engage with local residents and harvesters if possible and practical, regarding planned activities in the area 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, and to ensure safety to the public.
Proposed Terms and Conditions:	Land Use and Restoration of Disturbed Areas – 18 to 22 Public Consultation – 30 Inuit Harvesting and Traditional Land Use – 31

Socio-economic effects on northerners:

Valued Component	Historical, Cultural and Archaeological Sites
Potential effects:	The Proponent noted that a potential sampling site is located near the Old Town area of Cambridge Bay which has elevated archaeological and cultural potential. No other historical sites in the proposed project area were identified by the Proponent.
Nature of Impacts:	The potential for impacts is considered minimal due to the temporary and non-invasive nature of the activities.
Mitigating Factors:	The Proponent is required to stop work and notify the Culture and Heritage Department when encountering any historical sites. The Board is also recommending terms and conditions to ensure that project activities do not negatively affect historical or heritage sites.
Proposed Terms and Conditions:	Heritage Sites – 27 to 29

Valued Component	Economic impact, and local business

Potential effects:	Potential positive impacts to the local communities are minor, short-term, and localized, and based on potential use of local harvesters, guides, and services resulting from the proposed research activities as the program would be acquiring fish samples from local harvesters and having guidance while collecting field samples. The Proponent noted the possible use of locally chartered boats.
Nature of Impacts:	Potential for impacts is considered to be positive if the Proponent adheres to its commitment to hiring locally to the extent possible.
Mitigating Factors:	Terms and conditions are recommended to ensure the Proponent informs the community of the research activities and findings, and access local services.
Proposed Terms and Conditions:	Other – 30 and 32

Significant public concern:

Valued Component	Public Concerns
Potential effects:	No significant public concern was expressed during the public commenting period for this file, however, the Board recommends terms and conditions to ensure project activities do not interfere with Inuit wildlife harvesting or traditional land use activities, to the extent possible hire local people and access local services where possible, and to ensure planned activities in the area utilizes available Inuit Qaujimaningit.
Nature of Impacts:	The potential for impacts is considered to be minimal if the Proponent follows the recommended terms and conditions.
Mitigating Factors:	The Board is recommending terms and conditions to ensure that to the extent possible, the Proponent hire locally and access local services where possible, and to ensure planned activities in the area utilizes available Inuit Qaujimaningit.
Proposed Terms and Conditions:	General – 5 Other – 30 through 32

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 regulatory requirements and 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. Xing Song (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.: 150914) and the NIRB (Online Application Form, October 15, 2025). 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 ensure that no disturbance of the stream bed, lakebed or the banks of any definable watercourse be permitted, except where deemed necessary for maintaining project-specific operational commitments or approved by a responsible authority in cases of spill management.
7. 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

8. 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.
9. The Proponent shall dispose of all combustible wastes as required by the appropriate authorizing agencies. All non-combustible wastes from the project site shall be removed to an approved facility for disposal.

Wildlife – General

10. 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.
11. 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.
12. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
13. The Proponent shall ensure that all wildlife have the right-of-way on any roads or trails. Vehicles are required to slow down or stop and wait to permit the free and unrestricted movement of wildlife across roads or trails at any location.

Migratory Birds and Raptors Disturbance

14. 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.
15. The Proponent shall not disturb or destroy the nests or eggs of any birds. If active nests of any birds are discovered or located (i.e., with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have naturally left the vicinity of the nest by establishing a protection buffer zone1 appropriate for the species and the surrounding habitat.
16. 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.
17. 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.

Land Use and Restoration of Disturbed Areas

18. The Proponent shall use existing trails where possible during project activities on the land.
19. The Proponent shall ensure that the land use area is kept clean and tidy at all times.
20. The Proponent shall avoid disturbance on slopes prone to natural erosion, and alternative locations shall be utilized.
21. The Proponent shall remove all garbage, fuel and equipment at the end of each field season and/or upon completion of work and/or upon abandonment.
22. The Proponent shall ensure that all disturbed areas are restored to a stable or pre-disturbed state using Best Available Technology Economically Achievable (BATEA) upon completion of work and/or abandonment.

Marine-Based Activities

23. 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.
24. 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.
25. The Proponent shall report all incidents, injuries or sightings of marine mammals to the appropriate authorizing agencies.
26. 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.

Heritage Sites

27. The Proponent shall ensure that archaeological and paleontological sites are not purposely or inadvertently disturbed as a result of project activities.
28. The Proponent shall ensure that all personnel are aware of the Proponent's responsibilities and requirements regarding archaeological or palaeontological sites that are encountered during land-based activities. This should include briefings explaining the prohibitions regarding removal of artifacts, and defacing or writing on rocks and infrastructure.
29. No activities shall be conducted in the vicinity (50 metres buffer zone) of any archaeological/historical sites. If archaeological sites or features are encountered, activities shall immediately be interrupted and moved away from this location. Each site encountered needs to be recorded and reported to the Government of Nunavut-Department of Culture and Heritage.

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.

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 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.

CONCLUSION

The foregoing constitutes the Board's screening decision with respect to the Memorial University of Newfoundland's "ArcSolution: Emerging Pollutants and Health in the Arctic". The NIRB remains available for consultation with the Minister regarding this report as necessary.

Dated January 15, 2026 at Iqaluit, NU.

Albert Ehaloak, *Acting* Chairperson

Attachments: Appendix A: Species at Risk in Nunavut
Appendix B: Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders

APPENDIX A: SPECIES AT RISK IN NUNAVUT

Due to the requirements of Section 79(2) of the *Species at Risk Act*, S.C. 2002, c. 29 *(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 2024

Terrestrial Species at Risk[1]	COSEWIC Designation	Schedule of *SARA*	Government Organization with Primary Management Responsibility[2]
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
Porsild's Bryum	Threatened	Schedule 1	Government of Nunavut (GN)
Transverse Lady Beetle	Special Concern	No Schedule	GN
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
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
Beluga Whale (Eastern High Arctic-Baffin Bay Population)	Special Concern	No Schedule	DFO
Beluga Whale (Western Hudson Bay Population)	Special Concern	No Schedule	DFO
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

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.

APPENDIX B: ARCHAEOLOGICAL AND PALAEONTOLOGICAL RESOURCES TERMS AND CONDITIONS FOR LAND USE PERMIT HOLDERS

INTRODUCTION

The Department of Culture and Heritage (CH) routinely reviews land use applications sent to the Nunavut Water Board, Nunavut Impact Review Board and the Indigenous and Northern Affairs Canada. These terms and conditions provide general direction to the permittee/proponent regarding the appropriate actions to be taken to ensure the permittee/proponent carries out its role in the protection of Nunavut's archaeological and palaeontological resources.

TERMS AND CONDITIONS

1) The permittee/proponent shall have a professional archaeologist and/or palaeontologist perform the following **Functions** associated with the **Types of Development** listed below or similar development activities:

	Types of Development (See Guidelines below)	**Function** (See Guidelines below)
a)	Large scale prospecting	Archaeological/Palaeontological Overview Assessment
b)	Diamond drilling for exploration or geotechnical purpose or planning of linear disturbances	Archaeological/Palaeontological Overview Assessment and/or Inventory and Documentation and/or Mitigation
c)	Construction of linear disturbances, Extractive disturbances, Impounding disturbances and other land disturbance activities	Archaeological/Palaeontological Overview Assessment and/or Inventory and Documentation and/or Mitigation

Note that the above-mentioned functions require either a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit. CH is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*[3] to issue such permits.

[3] P.C. 2001-1111 14 June, 2001

2) The permittee/proponent shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
3) The permittee/proponent shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
4) The permittee/proponent shall immediately contact CH at (867) 934-2046 or (867) 975-5500 should an archaeological site or specimen, or a palaeontological site or fossil, be encountered or disturbed by any land use activity.
5) The permittee/proponent shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation until permitted to proceed with the authorization of CH.
6) The permittee/proponent shall follow the direction of CH in restoring disturbed archaeological or palaeontological sites to an acceptable condition. If these conditions are attached to either a Class A or B Permit under the Territorial Lands Act Indigenous and Northern Affairs Canada directions will also be followed.
7) The permittee/proponent shall provide all information requested by CH concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
8) The permittee/proponent shall make best efforts to ensure that all persons working under its authority are aware of these conditions concerning archaeological sites and artifacts and palaeontological sites and fossils.
9) If a list of recorded archaeological and/or palaeontological sites is provided to the permittee/proponent by CH as part of the review of the land use application the permittee/proponent shall avoid the archaeological and/or palaeontological sites listed.
10) Should a list of recorded sites be provided to the permittee/proponent, the information is provided solely for the purpose of the proponent's land use activities as described in the land use application, and must otherwise be treated confidentially by the proponent.

Legal Framework

As stated in Article 33 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (*Nunavut Agreement*):

Where an application is made for a land use permit in the Nunavut Settlement Area, and there are reasonable grounds to believe that there could be sites of archaeological importance on the lands affected, no land use permit shall be issued without written consent of the Designated Agency. Such consent shall not be unreasonably withheld. [33.5.12]

Each land use permit referred to in Section 33.5.12 shall specify the plans and methods of archeological site protection and restoration to be followed by the permit holder, and any other conditions the Designated Agency may deem fit. [33.5.13]

Palaeontology and Archaeology
Under the *Nunavut Act*[4], the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*[5], it is illegal to alter or disturb any palaeontological or archaeological site in Nunavut unless permission is first granted through the permitting process.

Definitions
As defined in the *Nunavut Archaeological and Palaeontological Sites Regulations*, the following definitions apply:

> *"archaeological site" means a place where an archaeological artifact is found.*
>
> *"archaeological artifact" means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement).*
>
> *"palaeontological site" means a site where a fossil is found.*
>
> *"fossil" includes:*
> *Fossil means the hardened or preserved remains or impression of previously living organisms or vegetation and includes:*
> *(a) natural casts;*
> *(b) preserved tracks, coprolites and plant remains; and*
> *(c) the preserved shells and exoskeletons of invertebrates and the preserved eggs, teeth and bones of vertebrates.*

Guidelines for Developers for the Protection of Archaeological Resources in the Nunavut Territory

(**Note:** Partial document only, complete document at: www.ch.gov.nu.ca/en/Archaeology.aspx)

Introduction
The following guidelines have been formulated to ensure that the impacts of proposed developments upon heritage resources are assessed and mitigated before ground surface altering activities occur. Heritage resources are defined as, but not limited to, archaeological and historical sites, burial grounds, palaeontological sites, historic buildings and cairns Effective collaboration between the developer, the Department of Culture, and Heritage (CH), and the contract archaeologist(s) will ensure proper preservation of heritage resources in the Nunavut Territory. The roles of each are briefly described.

[4] s. 51(1)
[5] P.C. 2001-1111 14 June, 2001

CH is the Nunavut Government agency which oversees the protection and management of heritage resources in Nunavut, in partnership with land claim authorities, regulatory agencies, and the federal government. Its role in mitigating impacts of developments on heritage resources is as follows: to identify the need for an impact assessment and make recommendations to the appropriate regulatory agency; set the terms of reference for the study depending upon the scope of the development; suggest the names of qualified individuals prepared to undertake the study to the developer; issue an archaeologist or palaeontologist permit authorizing field work; assess the completeness of the study and its recommendations; and ensure that the developer complies with the recommendations.

The primary regulatory agencies that CH provides information and assistance to are the Nunavut Impact Review Board, for development activities proposed for Inuit Owned Lands (as defined in Section 1.1.1 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (*Nunavut Agreement*)), and the Indigenous and Northern Affairs Canada, for development activities proposed for federal Crown Lands.

A developer is the initiator of a land use activity. It is the obligation of the developer to ensure that a qualified archaeologist or palaeontologist is hired to perform the required study and that provisions of the contract with the archaeologist or palaeontologist allow permit requirements to be met; i.e. fieldwork, collections management, artifact and specimen conservation, and report preparation. On the recommendation of the contract archaeologist or palaeontologist in the field and the Government of Nunavut, the developer shall implement avoidance or mitigative measures to protect heritage resources or to salvage the information they contain through excavation, analysis, and report writing. The developer assumes all costs associated with the study in its entirety.

Through his or her active participation and supervision of the study, the contract archaeologist or palaeontologist is accountable for the quality of work undertaken and the quality of the report produced. Facilities to conduct fieldwork, analysis, and report preparation should be available to this individual through institutional, agency, or company affiliations. Responsibility for the curation of objects recovered during field work while under study and for documents generated in the course of the study as well as remittance of artifacts, specimens and documents to the repository specified on the permit accrue to the contract archaeologist or palaeontologist. This individual is also bound by the legal requirements of the *Nunavut Archaeological and Palaeontological Sites Regulations*.

Types of Development

In general, those developments that cause concern for the safety of heritage resources will include one or more of the following kinds of surface disturbances. These categories, in combination, are comprehensive of the major kinds of developments commonly proposed in Nunavut. For any single development proposal, several kinds of these disturbances may be involved

- *Linear disturbances: including the construction of highways, roads, winter roads, transmission lines, and pipelines;*
- *Extractive disturbances: including mining, gravel removal, quarrying, and land filling;*

- *Impoundment disturbances: including dams, reservoirs, and tailings ponds;*
- *Intensive land use disturbances: including industrial, residential, commercial, recreational, and land reclamation work, and use of heritage resources as tourist developments.*
- *Mineral, oil and gas exploration: establishment of camps, temporary airstrips, access routes, well sites, or quarries all have potential for impacting heritage resources*.

Types of Studies Undertaken to Preserve Heritage Resources

Overview: An overview study of heritage resources should be conducted at the same time as the development project is being designed or its feasibility addressed. They usually lack specificity with regard to the exact location(s) and form(s) of impact and involve limited, if any, field surveys. Their main aim is to accumulate, evaluate, and synthesize the existing knowledge of the heritage of the known area of impact. The overview study provides managers with baseline data from which recommendations for future research and forecasts of potential impacts can be made. A Class I Permit is required for this type of study if field surveys are undertaken.

Reconnaissance: This is done to provide a judgmental appraisal of a region sufficient to provide the developer, the consultant, and government managers with recommendations for further development planning. This study may be implemented as a preliminary step to inventory and assessment investigations except in cases where a reconnaissance may indicate a very low or negligible heritage resource potential. Alternately, in the case of small-scale or linear developments, an inventory study may be recommended and obviate the need for a reconnaissance.

The main goal of a reconnaissance study is to provide baseline data for the verification of the presence of potential heritage resources, the determination of impacts to these resources, the generation of terms of reference for further studies and, if required, the advancement of preliminary mitigative and compensatory plans. The results of reconnaissance studies are primarily useful for the selection of alternatives and secondarily as a means of identifying impacts that must be mitigated after the final siting and design of the development project. Depending on the scope of the study, a Class 1 or Class 2 Permit is required for this type of investigation.

Inventory: A resource inventory is generally conducted at that stage in a project's development at which the geographical area(s) likely to sustain direct, indirect, and perceived impacts can be well defined. This requires systematic and intensive fieldwork to ascertain the effects of all possible and alternate construction components on heritage resources. All heritage sites must be recorded on Government of Nunavut Site Survey forms. Sufficient information must be amassed from field, library and archival components of the study to generate a predictive model of the heritage resource base that will:

- allow the identification of research and conservation opportunities;
- enable the developer to make planning decisions and recognize their likely effects on the known or predicted resources; and

- make the developer aware of the expenditures, which may be required for subsequent studies and mitigation. A Class 1 or 2 permit is required.

Assessment: At this stage, sufficient information concerning the numbers and locations of heritage resources will be available, as well as data to predict the forms and magnitude of impacts. Assessments provide information on the size, volume, complexity and content of a heritage resource, which is used to rank the values of different sites or site types given current archaeological knowledge. As this information will shape subsequent mitigation program(s), great care is necessary during this phase.

Mitigation: This refers to the amelioration of adverse impacts to heritage resources and involves the avoidance of impact through the redesign or relocation of a development or its components; the protection of the resource by constructing physical facilities; or, the scientific investigation and recovery of information from the resource by excavation or other method. The type(s) of appropriate mitigative measures are dictated by their viability in the context of the development project. Mitigation strategies must be developed in consultation with, and approved by, the Department of Culture and Heritage. It is important to note that mitigation activities should be initiated as far in advance of the construction of the development as possible.

Surveillance and monitoring: These may be required as part of the mitigation program.

Surveillance may be conducted during the construction phase of a project to ensure that the developer has complied with the recommendations.

Monitoring involves identification and inspection of residual and long-term impacts of a development (i.e. shoreline stability of a reservoir); or the use of impacts to disclose the presence of heritage resources, for example, the uncovering of buried sites during the construction of a pipeline.