



SCREENING DECISION REPORT NIRB FILE No.: 18YN016

NPC File No.: 148653

May 29, 2018

Following the Nunavut Impact Review Board's (NIRB or Board) assessment of all materials provided, the NIRB is recommending that a review of University of Manitoba's "Churchill Marine Observatory – Environmental Observing (CMO-EO) System" is not required pursuant to paragraph 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, 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

- 1) REGULATORY FRAMEWORK
- 2) PROJECT REFERRAL
- 3) PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS
- 4) ASSESSMENT OF THE PROJECT PROPOSAL IN ACCORDANCE WITH PART 3 OF *NuPPAA*
- 5) VIEWS OF THE BOARD
- 6) RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS
- 7) OTHER NIRB CONCERNS AND RECOMMENDATIONS
- 8) REGULATORY REQUIREMENTS
- 9) CONCLUSION

REGULATORY FRAMEWORK

The primary objectives of the NIRB are set out in Section 12.2.5 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and are confirmed by section 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 section 88 of the *NuPPAA*:

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 subsection 89(1) of *NuPPAA*:

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 subsection 89(2) of the *NuPPAA* provides that the considerations set out in paragraph 89(1)(a) prevail over those set out in paragraph 89(1)(b) of the *NuPPAA*.

As set out under subsection 92(1) of the *NuPPAA*, upon conclusion of the screening process, the Board must provide its written report the Minister:

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 March 13, 2018 the Nunavut Impact Review Board (NIRB or Board) received a referral to screen University of Manitoba's "Churchill Marine Observatory – Environmental Observing (CMO-EO) System" project proposal from the Nunavut Planning Commission (NPC or Commission) with an accompanying positive conformity determination with the North Baffin Regional Land Use Plan and the Keewatin Regional Land Use Plan. Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and section 87 of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (*NuPPAA*), the NIRB commenced screening this project proposal and assigned it file number 18YN016.

PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

1. Project Scope

The proposed "Churchill Marine Observatory – Environmental Observing (CMO-EO) System" project is based out of Churchill, Manitoba, and would also be located in the Nunavut settlement area (NSA) within the Hudson Bay and Hudson Strait within the Kivalliq and Qikiqtani regions in proximity to the communities of Arviat, Rankin Inlet, Chesterfield Inlet, Baker Lake, Coral Harbour, Nauyasat, Hall Beach, Igloolik, Cape Dorset, Kimmirut, and Sanikiluaq, several Migratory Bird Sanctuaries and the Ukkusiksalik National Park. The Proponent intends to conduct research on detection, impact and mitigation of spills of oil and related contaminants in sea ice-covered waters and increase baseline knowledge of general oceanography. The program is proposed to take place from June 2018 to September 2025.

As required under subsection 86(1) of the *NuPPAA*, the Board accepts the scope of the "Churchill Marine Observatory – Environmental Observing (CMO-EO) System" project as set out by University of Manitoba in the proposal. The scope of the project proposal includes the following undertakings, works, or activities within the Nunavut Settlement Area (NSA):

- Use of a 65 foot research vessel (RV *William Kennedy*)
- Deployment of two (2) cabled oceanographic mooring in Hudson Bay and Hudson Strait within the NSA, and one (1) at the southern end of Roes Welcome Sound;
- Conducting coastal oceanographic sampling around Southampton Island and near Chesterfield Inlet
- Use of additional integrated oceanographic sensors from the research vessel to collect temperature, salinity, dissolved oxygen, fluorescence, turbidity, and underwater light;
- Collection of water samples, zooplankton, fish samples, marine sediment and benthic organisms;
- Use of a 24 foot zodiac to collect water and benthic samples closer to the coast and deploy scientific SCUBA divers;
- Use of SCUBA divers to assess species composition and biomass of macroalgae within shallow waters;
- Use of a remotely operated vehicle to obtain video measurements of the benthic environment;
- Use of chemicals for preservation of samples;

- Recover moorings deployed by RV *William Kennedy* for the Manitoba-led Hudson Bay System Study (BaySys) in southern Hudson Bay;
- Treatment of greywater and sewage onboard the vessels and disposal of combustible wastes at approved waste disposal facilities; and
- Conduct community visits in both Coral Harbour and Nauyasat.

While the Board focuses its assessment on only those activities proposed within Nunavut, the NIRB recognizes that the current proposal also includes activities within Manitoba that is vital to the activities that would occur in the NSA. The scope of proposed project-related activities outside of the NSA is listed here for information purposes only:

- Development of a multidisciplinary research facility based out of Churchill, Manitoba including:
 - An Oil-in-Sea-Ice Mesocosm with two (2) saltwater sub-pools;
 - An Environmental Observatory (EO) system consisting of the following:
 - Use of a 65 foot research vessel (MV *William Kennedy*);
 - Deployment of one (1) cabled oceanographic mooring in the Churchill estuary, and four (4) in Hudson Bay and Hudson Strait (two (2) within the NSA); and
 - Conduct research activities within the Hudson Bay complex within and outside of the NSA as described above under the Project Scope.

The activities within Manitoba are subject to Manitoba regulations and additional permitting may be required for the whole project to occur. The Proponent is encouraged to work with the appropriate regulatory authority (ies) and provide the NIRB with evidence that they have applied to the proper authorizations and permitting requirements for Manitoba.

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 proceeded with screening the project based on the scope as described above.

3. Key Stages of the Screening Process

The following key stages were completed:

Date	Stage
March 13, 2018	Receipt of project proposal and positive conformity determination (North Baffin Regional Land Use Plan and Keewatin Regional Land Use Plan) from the NPC
March 13, 2018 and March 21, 2018	Information requests
April 9, 2018	Proponent responded to information requests
April 9, 2018	Scoping pursuant to subsection 86(1) of the <i>NuPPAA</i>
April 11, 2018	Public engagement and comment request
April 23, 2018	Receipt of public comments
May 24, 2018	Ministerial extension requested from the Minister of Fisheries and Oceans and the Canadian Coast Guard

4. Public Comments and Concerns

Notice regarding the NIRB's screening of this project proposal was distributed on April 11, 2018 to community organizations in Arviat, Baker Lake, Chesterfield, Coral Harbour, Rankin Inlet, Naujaat, Whale Cove, Cape Dorset, Hall Beach, Igloolik, Kimmirut, and Sanikiluaq, 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 April 23, 2018 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.

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

Indigenous and Northern Affairs Canada (INAC)

- No comments or additional terms and conditions to offer at this time.

Arviq Hunters and Trappers Organization (Arviq HTO)

- Noted a preference to receive information on project proposals overlapping the Naujaat area at least one month before the comment deadline.

5. 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:

Arviq Hunters and Trappers Organization (Arviq HTO)

- Expressed concerns about locations of the proposed project in marine mammal calving habitat around Naujaat.

6. Time of Report Extension

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 subsection 92(3) of the *NuPPAA*. Therefore, on May 24, 2018 the NIRB wrote to the Minister of Fisheries and Oceans and the Canadian Coast Guard seeking an extension to the 45-day timeline for the provision of the Board's Report.

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 section 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:

1. *The size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts.*

The size of the geographic area includes marine and coastal areas along the main shipping channel across Hudson Bay, Hudson Strait and Foxe Basin with activities near several northern communities in the Qikiqtani (North and South Baffin) and Kivalliq regions. In addition, the proposed project activities take place near several Migratory Bird Sanctuaries and the Ukkusiksalik National Park. The proposed project would include the use of the MV *William Kennedy* research vessel to deploy three (3) long oceanographic moorings within the Nunavut Settlement Area (NSA) and for oceanographic research activities. In addition, a zodiac would be used from the research vessel to access oceanographic sampling locations in shallow waters. The proposed project would take place within habitat for various marine wildlife including fish populations, benthic invertebrates, and marine mammals, including Species at Risk and polar bears. As such, project activities may potentially affect both marine animal migratory patterns.

2. *The ecosystemic sensitivity of that area.*

The proposed project would occur near areas that have identified ecosystemic sensitivities such as the following migratory bird sanctuaries: Akimiski Island, Dewey Soper, East Bay, Hannah Bay, Harry Gibbons, McConnell River, as well as the Ukkusiksalik National Park. Further, the various areas that would be visited as part of the proposed project have been identified as having value and priority to local communities for:

- i. Marine mammals including marine wildlife habitat and migratory patterns;
- ii. Fish and fish habitat, such as Arctic Char;
- iii. Migratory and non-migratory birds; and
- iv. Polar Bears.

3. *The historical, cultural and archaeological significance of that area.*

Neither the Proponent nor any parties that submitted comments for this project identified any known areas of historical, cultural and archaeological significance associated with the project area. Should the project be approved to proceed, the Proponent would be required to contact

the Government of Nunavut-Department of Culture and Heritage if any sites of historical, cultural or archaeological significance are encountered.

4. *The size of the human and the animal populations likely to be affected by the impacts.*

The proposed project would occur as close to 170 kilometre (km) from Arviat, 125 km from Cape Dorset, and 150 km from Chesterfield Inlet, and will include community visits in Coral Harbour and Naujaat; as a result, human populations may be affected by potential project activities through the interference of traditional hunting and harvesting practices. Further, the Arviq Hunters and Trappers Organization raised concerns regarding potential project impacts on marine mammal calving habitat near Naujaat. In response, the Proponent committed to hiring a local guide to avoid disturbance of marine mammal habitat and to prevent project interference with traditional hunting practices in the project area.

5. *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.*

As the “Churchill Marine Observatory – Environmental Observing (CMO-EO) System” project is a proposed research program involving the deployment of oceanographic mooring, marine-based sampling activities, and the use of a research vessel within the Hudson Bay, Hudson Strait and Foxe Basin, the nature of potential impacts is considered to be well-known. Potential adverse impacts are likely to be localized, of low magnitude, and infrequent. However, due to the proximity of portions of the research activities to several Migratory Bird Sanctuaries and marine mammal habitat, specific mitigation measures for the protection of the marine wildlife may be necessary. Based on past evidence of similar scope of activities, potential adverse impacts will be reversible and mitigable with due care.

6. *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.*

The proposed project would take place within a 100 kilometre radius to a number of other projects that are currently active, in addition to other projects proposed and currently undergoing assessment by the Board as listed in Table 1 below. However, it is noted that this project is not likely to result in residual or cumulative impacts. The potential for cumulative impacts to many far-ranging terrestrial and marine wildlife habitat and migratory patterns resulting from the research activities and other projects occurring in the region has been identified and considered in the development of the NIRB’s recommendations. Terms and conditions recommended for each of these projects are expected to reduce any residual impacts, and as such would limit or eliminate the potential for cumulative effects to occur.

Table 1: Project List

NIRB Number	Project Title	Project Type
<i>Proposed Developments – undergoing assessment</i>		
18YN015	Arctic Driftwood as a proxy record of environmental change: a pilot study	Research
18YN019	Impacts of Wastewater at Baker Lake	Research
18EN026	Ege Bay Exploration Program	Mineral Exploration
<i>Active Projects</i>		
03MN017	Meadowbank Gold Mine	Mine Development and associated shipping activities
11MN034	Meliadine Gold Mine	Mine Development and associated shipping activities
13UN035	Submarine Cable System Project	Other
17YN017	Sanikiluaq MET Tower	Research
18YN022	Nunavut Water Resource Assessment: Igloolik and Hall Beach, Nunavut	Research
<i>Past Projects</i>		
17AN031	Canada C3 led by Students on Ice Foundation	Access

7. *Any other factor that the Board considers relevant to the assessment of the significance of impacts.*

No other specific factors have been identified as relevant to the assessment of this project proposal.

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.

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: 1-4.

Ecosystem, wildlife habitat and Inuit harvesting activities:

Issue 1: Potential adverse impacts to many far-ranging marine wildlife habitat and migratory patterns from the research activities and the increase in noise from the use of vessel to transport equipment and personnel to research sites. In addition, there is the potential

for adverse impacts to migratory birds from the increase in noise associated with the research activities.

Board views: As discussed above in the assessment of factors relevant to this project proposal, the potential for impact(s) is applicable to marine and coastal areas along the Hudson Bay, Hudson Strait and Foxe Basin within the Qikiqtani (North and South Baffin) and Kivalliq regions, which include areas near the Akimiski Island Migratory Bird Sanctuary, Akimiski Island Migratory Bird Sanctuary, Dewey Soper Migratory Bird Sanctuary, East Bay Migratory Bird Sanctuary, Hannah Bay Migratory Bird Sanctuary, Harry Gibbons Migratory Bird Sanctuary, McConnell River Migratory Bird Sanctuary, and the Ukkusiksalik National Park. Marine mammals may be affected adversely with respect to the increase in noise associated with the use of the RV *William Kennedy* vessel to conduct oceanographic sampling, use of the remote vehicle for sampling, scuba diving activities, and recovering of previous moorings. In addition, marine migratory birds may be also be adversely affected from the research activities. Due to the short and intermittent nature of the proposed activities, as well as the operational procedures that would be adhered to by the Proponent, potential adverse impacts to affected marine wildlife would be expected to be minimal and temporary only.

The Proponent would also be required to follow the *Migratory Birds Convention Act*, *Migratory Birds Regulations*, *Species at Risk Act*, the *Wildlife Act (Nunavut)*, the *Arctic Waters Pollution Prevention Act*, and the *Canada Shipping Act* (see Regulatory Requirements section).

Noted Inuit Qaujimaningit, traditional or community knowledge:

Comments were received from the Arviq Hunters and Trappers Organization expressing concerns about locations of the proposed project in marine mammal calving habitat around Naujaat.

Recommended Mitigation Measures: It is recommended that potential adverse impacts may be mitigated by requiring the Proponent to employ general and species-specific measures for the protection of marine wildlife during vessel operations and to ensure that project personnel are properly briefed on wildlife protocols, sensitivities, and management procedures prior to undertaking project activities. The following terms and conditions are recommended to mitigate the potential adverse impacts: 5 through 12.

Issue 2: Potential adverse impacts to marine water quality and marine ecosystems from storage and use of fuel, research activities, and the deposition of wastes associated with the use of the research vessel and zodiac.

Board views: The potential for impacts is applicable to marine and coastal areas along the Hudson Bay, Hudson Strait and Foxe Basin within the Qikiqtani (North and South Baffin) and Kivalliq regions. 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. The Proponent has committed to managing and disposing wastes at approved waste facilities, adhering to Transport Canada regulations

regarding the transportation of dangerous goods, and implementing a project-specific Spill Contingency Plan.

It is expected that standard operational considerations would mitigate potential adverse impacts to the surface water quality in the project area.

The Proponent would be required to follow the *Fisheries Act*, the *Transportation of Dangerous Goods Regulations*, the *Transportation of Dangerous Goods Act*, the *Canadian Environmental Protection Act*, the *Arctic Waters Pollution Prevention Act*, and the *Marine Liability Act* (see Regulatory Requirements section).

Recommended Mitigation Measures: It is recommended that potential impacts may be mitigated by requiring the Proponent to employ appropriate fuel management and waste management measures. The following term and condition is recommended to mitigate the potential adverse impacts to marine water quality and marine ecosystems: 13 through 15.

Issue 3: Potential adverse impacts to public and traditional land use activities in the area from the use of marine vessels to transport project personnel and equipment to the research sites.

Board Views: It is likely that the terrestrial and marine areas near these communities would be used for traditional activities and noise from the research vessel and the zodiac operations may temporarily change distribution of harvested species through avoidance, may affect personal enjoyment of the marine areas, and may interfere with traditional activities such as marine-based hunting practices. If situations arise where the project may interfere with traditional land use activities, a term and condition has been recommended to ensure minimal impacts to traditional land use activities.

Recommended Mitigation Measures: Term and condition 16 is recommended to ensure that the affected communities and organizations are informed about the project proposal and term and condition 17 has been recommended to ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities in the area. In addition, terms and conditions 9 through 12 are recommended to minimize interference with the movements of marine wildlife and birds.

Socio-economic effects on northerners:

Issue 4: Potential positive impacts to the local community of Chesterfield Inlet and Naujaat from the hiring of local guides.

Board Views: It is noted that the Proponent has committed to visit the local communities of Chesterfield Inlet and Naujaat. In addition, the Proponent has committed to hiring local guides in support of the Project.

Recommended Mitigation Measures: Terms and conditions 16 and 18 have been recommended to ensure the Proponent continues to inform the community of the research activities

and findings as well as provide community members with information to ensure a successful local hiring opportunity.

Significant public concern:

Issue 5: No significant public concern was expressed during the public commenting period for this file.

Board Views: The Proponent has committed to hiring a local guide for the navigation around protected and sensitive areas of the proposed project locations.

Recommended Mitigation Measures: Term and condition 16 is recommended to ensure that the affected community and organizations are informed about the project proposal, and to provide the Proponent with an opportunity to proactively address or mitigate any concerns that may arise from the project activities findings. Term and condition 18 is recommended to ensure that the Proponent provide community members with information to ensure a successful local hiring opportunity.

Technological innovations for which the effects are unknown:

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

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. University of Manitoba (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
2. The Proponent shall forward copies of all permits obtained and required for this project to the Nunavut Impact Review Board (NIRB) prior to the commencement of the project.
3. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (NPC File No.: 148653) and the NIRB (support information for Application, March 13, 2018 and April 5, 2018; and Online Application Form, April 9, 2018).
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Wildlife - General

5. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
6. The Proponent shall not harass wildlife. This includes persistently circling, chasing, hovering over pursuing or in any other way harass wildlife, or disturbing large groups of animals.
7. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
8. The Proponent shall ensure that all project personnel are made aware of the measures to protect wildlife and are provided with training and/or advice on how to implement these measures.

Migratory Birds and Raptors Disturbance

9. The Proponent shall minimize activities during periods when birds are particularly sensitive to disturbance such as migration, nesting and moulting.
10. The Proponent shall avoid the seaward site of seabird colonies and areas used by flocks of migrating waterfowl by three (3) kilometres.

Ship-based Activities

11. The Proponent shall not attempt to intersect or interfere with the movements of marine mammals. Strategic positioning of vessels ahead of the path being traveled by mobile whales and waiting for the whales to pass is also prohibited.
12. 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.
13. The Proponent shall not deposit, nor permit the deposit of any fuel, chemicals, wastes (including waste water) or sediment into any marine waters, and shall manage wastes on board the vessel prior to final disposal at approved port facilities.
14. The Proponent shall ensure that all personnel are properly trained in fuel and hazardous waste handling procedures, as well as spill response procedures. All spills of fuel or other deleterious materials of any amount must be reported immediately to the 24 hour Spill Line at (867) 920-8130.
15. The Proponent shall ensure that all personnel are aware of the Proponent's responsibilities and requirements regarding wildlife and wildlife habitat protection.

Other

16. The Proponent should consult with local residents regarding their activities in the area and solicit available Inuit Qaujimatuqangit and information that can inform project activities.
17. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.
18. The Proponent should, to the extent possible, hire local people and access local services where possible.

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 the NIRB of any changes in operating plans or conditions, including phase advancement, associated with this project prior to any such change.

Bear and Carnivore Safety

2. The Proponent should review the Government of Nunavut's booklet on Bear Safety, which can be downloaded from this link: http://gov.nu.ca/sites/default/files/bear_safety_-_reducing_bear-people_conflicts_in_nunavut.pdf. Further information on bear/carnivore detection and deterrent techniques can be found in the "*Safety in Grizzly and Black Bear Country*" pamphlet, which can be downloaded from this link: http://www.enr.gov.nt.ca/sites/default/files/web_pdf_wd_bear_safety_brochure_1_may_2015.pdf.
3. There are polar bear and grizzly bear safety resources available from the Bear Smart Society with videos on polar bear safety available in English, French and Inuktitut at <http://www.bearsmart.com/play/safety-in-polar-bear-country/>. Information can also be obtained from Parks Canada's website on bear safety at the following link: <http://www.pc.gc.ca/eng/pn-np/nu/quttinirpaaq/visit/visit6/d.aspx> or in reviewing the "*Safety in Polar Bear Country*" pamphlet, which can be downloaded from the following link: http://www.pc.gc.ca/eng/pn-np/nu/quttinirpaaq/visit/visit6/~media/pn-np/nu/auyuittuq/pdf/shared/PolarBearSafety_English.ashx.
4. Any problem wildlife or any interaction with carnivores should be reported immediately to the local Government of Nunavut, Department of Environment Conservation Office (Conservation Officer of Iqaluit, phone: (867) 924-6235).

Species at Risk

5. 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.

Migratory Birds

6. The Proponent review Canadian Wildlife Services' "Key migratory bird terrestrial habitat sites in the Northwest Territories and Nunavut", available at the following link: <http://publications.gc.ca/site/eng/317630/publication.html> and "Key marine habitat sites for migratory birds in Nunavut and the Northwest Territories", available at the following link: <http://publications.gc.ca/site/eng/392824/publication.html>. The guide provides information to the Proponent on key terrestrial and marine habitat areas that are essential to the welfare of various migratory bird species in Canada.

7. For further information on how to protect migratory birds, their nests and eggs when planning or carrying out project activities, consult Environment and Climate Change Canada's Incidental Take web page and the fact sheet "Planning Ahead to Reduce the Risk of Detrimental Effects to Migratory Birds, and their Nests and Eggs" available at <http://www.ec.gc.ca/paom-itmb/>.

Transport of Dangerous Goods and Waste Management

8. Environment and Climate Change Canada recommends that all hazardous wastes, including waste oil, receive proper treatment and disposal at an approved facility.
9. The Proponent shall ensure that proper shipping documents (waste manifests, transportation of dangerous goods, etc.) accompany all movements of dangerous goods. Further, the Proponent shall ensure that the shipment of all dangerous goods is registered with the Government of Nunavut Department of Environment, Department of Environment Manager. Contact the Manager (867) 975-7748 to obtain a manifest if dangerous goods including hazardous wastes will be transported.

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 *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<http://laws-lois.justice.gc.ca/eng/acts/M-7.01/>).
3. The *Species at Risk Act* (<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 *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>).
5. The *Transportation of Dangerous Goods Regulations* (<http://www.tc.gc.ca/eng/tdg/clear-tofc-211.htm>), *Transportation of Dangerous Goods Act* (<http://laws-lois.justice.gc.ca/eng/acts/t-19.01/>), and the *Canadian Environmental Protection Act* (<http://laws-lois.justice.gc.ca/eng/acts/C-15.31/>).
6. The *Arctic Waters Pollution Prevention Act* (<http://laws-lois.justice.gc.ca/eng/acts/A-12/>).
7. The *Canada Shipping Act, 2001* (<http://laws-lois.justice.gc.ca/eng/acts/C-10.15/>).
8. The *Marine Liability Act* (<http://laws-lois.justice.gc.ca/eng/acts/M-0.7/>).
9. The *Navigation Protection Act* (<http://laws-lois.justice.gc.ca/eng/acts/N-22/index.html>).

Other Applicable Guidelines

10. The *Guidance Document for Passenger Vessels Operating in the Canadian Arctic* (<https://www.tc.gc.ca/eng/marinesafety/tp-tp13670-menu-2315.htm>).

CONCLUSION

The foregoing constitutes the Board's screening decision with respect to the University of Manitoba "Churchill Marine Observatory – Environmental Observing (CMO-EO) System". The NIRB remains available for consultation with the Minister regarding this report as necessary.

Dated May 29, 2018 at Whale Cove, NU



Elizabeth Copland, Chairperson

Attachment: 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 2017

Terrestrial Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
Migratory Birds			
Buff-breasted Sandpiper	Special concern	Schedule 1	ECCC
Eskimo Curlew	Endangered	Schedule 1	ECCC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	ECCC
Harris's Sparrow	Special Concern	Pending	ECCC
Horned Grebe (Western population)	Special Concern	Schedule 1	ECCC
Ivory Gull	Endangered	Schedule 1	ECCC
Peregrine Falcon	Special Concern (<i>anatum-tundrius</i> complex ³)	Schedule 1 - Schedule 3	ECCC
Red Knot (<i>islandica</i> subspecies)	Special Concern	Schedule 1	ECCC
Red Knot (<i>rufa</i> subspecies)	Endangered	Schedule 1	ECCC
Red-necked Phalarope	Special concern	Pending	ECCC
Ross's Gull	Threatened	Schedule 1	ECCC
Rusty Blackbird	Special Concern	Schedule 1	ECCC
Short-eared Owl	Special Concern	Schedule 1	ECCC
Vegetation			
Blanket-leaved Willow	Special Concern	Schedule 1	Government of Nunavut
Felt-leaf Willow	Special Concern	Schedule 1	Government of Nunavut
Porsild's Bryum (Moss)	Threatened	Schedule 1	Government of Nunavut
Arthropods			
Traverse Lady Beetle	Special Concern	Pending	Government of Nunavut
Terrestrial Wildlife			
Caribou (Barren-Ground population)	Threatened	Pending	Government of Nunavut
Dolphin and Union Caribou	Special Concern	Schedule 1	Government of Nunavut
Grizzly Bear (Western Population)	Special Concern	Pending	Government of Nunavut
Peary Caribou	Endangered	Schedule 1	Government of Nunavut
Peary Caribou (High Arctic Population)	Endangered	Schedule 2	Government of Nunavut
Peary Caribou (Low Arctic Population)	Threatened	Schedule 2	Government of Nunavut
Wolverine	Special Concern	Pending	Government of Nunavut
Wolverine (Western population)	Non-active	Pending	Government of Nunavut
Marine Wildlife			
Atlantic Walrus	Special Concern	Pending	DFO
Beluga Whale (Cumberland Sound population)	Endangered	Schedule 2	DFO
Beluga Whale (Eastern High Arctic – Baffin Bay population)	Special Concern	Pending	DFO
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO

Beluga Whale (Southeast Baffin Island – Cumberland Sound population)	Endangered	Schedule 2	DFO
Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Arctic population)	Endangered	Schedule 2	DFO
Bowhead Whale (Eastern Canada – West Greenland population)	Special Concern	Pending	DFO
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO
Polar Bear	Special Concern	Schedule 1	Government of Nunavut/DFO
Fish			
Atlantic Cod, Arctic Lakes	Special Concern	Pending	DFO
Atlantic Wolffish	Special Concern	Schedule 1	DFO
Bering Wolffish	Special Concern	Schedule 3	DFO
Blackline Prickleback	Special Concern	Schedule 3	DFO
Fourhorn Sculpin	Special Concern	Schedule 3	DFO
Fourhorn Sculpin (Freshwater form)	Data Deficient	Schedule 3	DFO
Northern Wolffish	Threatened	Schedule 1	DFO
Roundnose Grenadier	Endangered	Pending	DFO
Spotted Whitefish	Threatened	Schedule 1	DFO
Thorny Skate	Special Concern	Pending	DFO

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

² Environment Canada (EC) 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.