

“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:

“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) provides that the considerations set out in paragraph 89(1)(a) prevail over those set out in paragraph 89(1)(b).

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. Specifically, paragraph 92(2)(a) of NuPPAA provides:

“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 July 4, 2016 the NIRB received a referral to screen the project proposal from the Nunavut Planning Commission (NPC or Commission).

PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

1. Project Description

The proposed “MS Silver Explorer, North Atlantic Adventure” project is a cruise ship which proposes to originate in Greenland and travel to the Qikiqtani (South Baffin) region for vessel-based tourist activities with a stop at Iqaluit, in addition to visits to two (2) locations in Newfoundland and Labrador and visits to the Nunavik Marine region in Quebec. The program is proposed to take place during September 2016.

According to the project proposal, the scope of the project includes the following undertakings, works or activities:

- Transportation and accommodation of up to 263 passengers, staff and crew aboard MS Silver Explorer vessel;
- Storage and use of diesel for vessel operations, and gasoline for zodiac operations;
- Use of approximately ten (10) inflatable zodiac boats fitted with outboard engines to facilitate shore landings and sightseeing excursions;
 - Potential landings to include stops at Iqaluit and Nunavik Island;
 - Cruise around isolated islands near Iqaluit;
 - Visits to tourism sites in Iqaluit;
 - Undertake viewing of marine wildlife, polar bears and birds.
- Desalination and use of seawater for vessel operations;
- Generation of combustible wastes, and non-combustible wastes with disposal at a certified reception port;
- Generation of hazardous waste, sewage and grey water with treatment prior to disposal at sea or on shore of a certified reception port; and
- Conduct education and training of passengers, crew and expedition team during project duration.

2. Scoping

The NIRB has identified no additional works or activities in relation to the project proposal.

3. Key Stages of the Screening Process

The following key stages were completed:

Date	Stage
July 4, 2016	Receipt of project proposal from the NPC
July 15, 2016	Information request(s)
July 15, 2016	Proponent responded to information request(s)
July 18, 2016	Scoping pursuant to subsection 86(1) of the NuPPAA
July 28, 2016	Public engagement and comment request
August 18, 2016	Receipt of public comments

4. Public Comments and Concerns

From July 28, 2016 to August 18, 2016 the NIRB provided opportunity for the public to provide comments and concerns regarding the project proposal. The following is a summary of the comments and concerns received:

Government of Nunavut

- Noted that a Class 1 permit for archaeological site visitation would not be required as the Proponent does not intend to visit locations with historical/archaeological significance during project duration;
- Commented on the potential for shipborne tourism cruise during ice-free season to induce additional stress on fasting polar bears, including females with cubs, and swimming polar bears from disturbance by boats and close approaches;

- Recommended that the proponent maintain a minimum distance of 100 metres between the zodiac and the land/ice/spot where polar bear is present in order to prevent undue stress to the bear being observed;
- Recommended that the proponent adhere to the Government of Nunavut's standard procedures of using 12 gauge shotguns which are capable of firing non-lethal deterrents for bear protection; and
- Recommended that any interactions with polar bears be avoided, and that expedition boats stay clear of any swimming polar bears with further recommendations that all interaction with polar bears be reported to the nearest Conservation Officer as soon as possible.

Environment and Climate Change Canada

- Recommended that the Proponent comply with guidelines to avoid disturbance to seabirds and water birds in colonies and avoid impacts to migratory birds.

Indigenous and Northern Affairs Canada

- Had no comments or concerns regarding the project proposal.

Fisheries and Oceans Canada

- Noted concerns with respect to disturbances of marine mammals and their habitats and recommended that watercraft survey the project area for the presence of marine mammals prior to visitations;
- Recommended that if marine mammals are encountered, and remain in the area, effort should be made to avoid disturbing them by rerouting vessel, and slowly navigating around their location at a reduced speed; and
- Recommended that watercraft do not accelerate within 400 metres of marine mammals, and that marine mammal should not be approached closer than 100m at any time.

Transport Canada

- Recommended that the Proponent adhere to all Acts and regulations associated with the *Canadian Shipping Act*, and *Marine Safety and Security Act*.

5. Comments and Concerns with respect to Inuit Qaujimaningit

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

No concerns or comments were received with respect to Inuit Qaujimaningit in relation to the proposed project.

FACTORS FOR DETERMINING SIGNIFICANCE OF IMPACTS

In determining whether a review of the project is required, the Board considered whether the project proposal had a 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 NuPPAA. The Board took particular attention to take into

account traditional knowledge and Inuit Qaujimaningit 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 for the project proposal include a shore area of approximately 4,300 kilometres (km) along the south Baffin region, and would include a stop at Iqaluit, in addition to visits to two (2) locations in Newfoundland and Labrador and visits to the Nunavik Marine region in Quebec. The proposed activities may take place within habitat of far ranging marine mammal species, fish population, benthic invertebrates and migratory birds, as identified by the Proponent, commenting parties and mapping sources, and may potentially affect marine wildlife migratory patterns.

2. *The ecosystemic sensitivity of that area.*

The Government of Nunavut has noted the potential for shipborne tourism cruise during ice-free season to induce additional stress on fasting polar bears including females with cubs, and swimming polar bears due to disturbance by boats and close approaches. In addition, Fisheries and Oceans Canada also noted concerns with respect to the potential for the proposed project to cause disturbance of marine mammals. The proposed project would occur in an area where fish population, bird habitats and marine mammals species such walrus, seal, whale, narwhal, and beluga whale may be present. Further, this area has been identified as having value and priority to the local community for:

- i. Fisheries;
- ii. Historical travel routes;
- iii. Migratory birds, including Eider duck nesting; and
- iv. Polar bears habitat.

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

The project proponent indicated that there are no known areas of historical, cultural and archaeological significance associated with the project areas. However, during the NIRB commenting period for this file the Government of Nunavut noted that a Class 1 permit for archaeological site visitation would not be required as the Proponent does not intend to visit locations with historical/archaeological significance during project duration.

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

The would transit marine areas near various south Baffin communities, with stops at Iqaluit and potentially near Kimmirut; as such human populations from several communities are likely to be affected by project impacts. The Proponent has identified the potential for vessel cruising and zodiac tours to interact with marine wildlife and likely to be affected by

potential project impacts. In addition, the Government of Nunavut has noted the potential for swimming polar bears including females with cubs to be disturbed by vessel presence and human activities particularly during the ice-free season.

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 “MS Silver Explorer, North Atlantic Adventure” project is a proposed tourism cruise project, the nature of potential impacts is considered to be well-known, with potential for infrequent, localized impacts to the biophysical environment that are temporary in nature, 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 in proximity to other active projects that have been or is currently being assessed by the Board. This includes “Impacts of Air Pollution on Terrestrial and Aquatic Ecosystems on Southern Baffin Island” (NIRB File No. 16YN048); “The Burden of Infectious Pathogens in Clams in Iqaluit, Nunavut” (NIRB File No. 16YN057); “Zoonotic Disease Prevention in Dog Populations in Iqaluit, Nunavut” (NIRB File No. 16YN044); “Ancient DNA in Lake Sediments” (NIRB File No. 16YN010); and “Baffin Island Spinel Research Project” (16YN016). Potential for cumulative impacts to the biophysical environment resulting from increased research and tourism activities have been identified and considered in development of the recommended mitigation measures set out in the following section. Further, this project proposal could induce additional tourism activities in the area.

Although no public concerns were raised during the public commenting period, the NIRB notes that the close proximity of the proposed activities to the communities of Iqaluit and Kimmirut and areas used by residents for recreational/traditional pursuits could potentially contribute to public concern developing. A term and condition has been recommended to direct engagement with the community, Hunters and Trappers Organizations (HTO) and posting of public notices to ensure residents are aware of tourism activities to be conducted.

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.

In considering the factors as set out above in the screening of the project proposal, the NIRB has identified a number of issues and provides the following views regarding whether or not the proposed project has the potential to result in significant impacts, and 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 negative impacts to terrestrial wildlife and migratory birds due to increased noise and disturbance from ship and zodiac operations and ground-based tourism excursions.

Board views: As discussed above in the assessment of factors relevant to this project proposal, the potential for impact(s) is applicable to a shore area of approximately 4,300 km along south Baffin region, and would include a stop at Iqaluit and potentially near Kimmirut, in addition to visits to two (2) locations in Newfoundland and Labrador and visits to the Nunavik Marine region in Quebec. The activities are limited due to intermittent tourism activities anticipated to occur for only three days and would be expected to be temporary. Some project activities, such as ground-based excursions to various tourism sites, and routine ship and zodiac operations could potentially disturb migratory birds using the surrounding waterbodies as well as terrestrial wildlife proximal to the tourism locations.

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

Recommended Mitigation Measures: It is recommended that the potential negative impacts may be mitigated by measures such as requiring the Proponent to comply with operational restrictions and wildlife management. The following terms and conditions are recommended to mitigate the potential adverse impacts: 5, 9 through 12, 14 through 17 and 20.

Issue 2: Potential negative impacts to marine fish and fish habitat, seabirds and marine mammals due to vessel noise and physical disturbance from ship operations and zodiac tours.

Board views: Noise generated from the shipborne tourism and zodiacs tours could result in temporary auditory threshold shifts, masking of echolocation signals, including disturbance of marine wildlife, fish population and benthic habitats, and could subsequently result in separation of parent/pups, destruction of eggs, and decrease in size or migration of colony as well as injuries or mortality events; however, any resulting impacts would be expected to be temporary only. In addition, the Proponent has committed to complying with all relevant standard operating procedures and implementing all relevant guidelines to avoid harmful interference with marine biota.

The Proponent would also be required to minimize wildlife disturbance, and follow the *Canadian Shipping Act*, *Fisheries Act* and *Species at Risk Act* (see Regulatory Requirements section).

Recommended Mitigation Measures: It is recommended that the potential negative impacts may be mitigated by measures such as requiring the Proponent to comply with wildlife management measures for cruise ship tourism and ship-based activities. The following terms and conditions are recommended to mitigate the potential adverse impacts: 13 through 17.

Issue 3: Potential negative impacts to marine water quality from hydrocarbon contamination, or introduction of foreign species from spills, ballast exchange, and waste disposal.

Board views: The potential for impacts is applicable to a small geographic area 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 as the Proponent has submitted a revised Environmental Impact Assessment for Ship-Based Tourism in support of its project proposal. In addition, the Proponent has committed to undertaking proper maintenance of the cruise vessel and would comply with Canadian legislation for vessel operation in arctic waters, and implement measures within international maritime regulations for preventing pollution from ships, and proper waste disposal.

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

Recommended Mitigation Measures: It is recommended that the potential negative impacts be mitigated by measures such as requiring the Proponent implement operational restrictions, including proper fuel storage and spill response, and comply with all regulations for preventing introduction of unwanted aquatic organisms and pathogen from ship's ballast water, and proper wastes disposal. The following terms and conditions are recommended to mitigate the potential adverse impacts: 6 through 8 and 13.

Issue 4: Potential negative impacts to ambient air from ship emissions.

Board views: The Proponent has indicated that the cruise ship would generate insignificant stack emissions, and that impacts to ambient air are anticipated to be transitory and localized. In addition, the Proponent has committed to undertaking proper maintenance of the cruise vessel, and utilizing new equipment to reduce airborne pollution and would comply with Canadian legislation for vessel operation in arctic waters. Further, the Proponent has developed a revised Environmental Impact Assessment plan for ship-based tourism.

The Proponent would also be required to follow the *Canadian Environmental Protection Act* (see Regulatory Requirements).

Recommended Mitigation Measures: It is recommended that the potential negative impacts be mitigated by measures such as requiring the Proponent implement operational restrictions, and comply with all regulations to reduce airborne pollution. Term and condition 9 has been recommended to mitigate the potential negative impacts from ship emissions.

Issue 5: Potential negative impacts to public and traditional land use activities in the area due to vessel movement and tourist visits to special wildlife locations.

Board Views: The Proponent has indicated that the proposed project would take place within waters proximal to south Baffin communities (Iqaluit and potentially Kimmirut). Due to close distances of these communities to special wildlife areas, it is likely that the terrestrial and marine areas near these communities would be used for traditional activities and noise from cruise ship and zodiac tours may temporarily change distribution of harvested marine species through avoidance and may affect personal enjoyment of the land. A term and condition has been recommended to ensure minimal impacts to traditional land use activities.

Recommended Mitigation Measures: Term and condition 23 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 14 through 17 have been recommended to minimize interference with the movements of marine mammals and migrating birds.

Socio-economic effects on northerners:

Issue 6: Potential negative impacts to historical, cultural and archaeological sites due to guided community visits.

Board Views: The Proponent has indicated that there are no known areas of historical, cultural and archaeological significance associated with the project areas. However, the Government of Nunavut-Department of Culture and Heritage has noted during the commenting period for this file that a Class 1 permit would not be required for the proposed tourism cruise activities as such no potential negative impacts to any archaeological and palaeontology site are anticipated as a result of the project.

Recommended Mitigation Measures: Terms and conditions 18 through 21 are recommended to ensure that available Inuit Qaujimaningit can inform project activities, and reduce the potential for negative impacts occurring to any additional historical sites.

Significant public concern:

Issue 7: No significant public concern was expressed during the public commenting period for this file.

Board Views: Follow up consultation and involvement of local community members are expected to mitigate any potential for public concern resulting from project activities. Further it is noted that the Proponent has consulted with a local outfitter on pre-planned

organized tourism visits. It is recommended that the Proponent considers hiring local people for the project activities.

Recommended Mitigation Measures: Term and conditions 19 and 21 are recommended to ensure that the affected communities 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 tourism activities. Term and condition 22 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. Silversea Cruises Limited (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 NIRB (Online Application Form, NIRB Part 1 Form, July 5, 2016; Revised Environmental Impact Assessment Report, Non-technical summary, and Voyage timings and Expedition highlights, July 4, 2016).
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Waste Disposal

5. The Proponent shall store and properly contain all garbage and debris until disposed of at an approved facility.

Fuel and Chemical Storage

6. The Proponent shall use drip pans or other equivalent device when refueling equipment. The Proponent shall also use secondary containment or a surface liner (e.g., self-supporting installments and fold-a-tanks) at all refueling stations.

7. The Proponent shall ensure that appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) are readily available during any transfer of fuel or hazardous substances, at all fuel storage sites.
8. 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.

Wildlife - General

9. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
10. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
11. 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

12. 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

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.

Cruise Ship Tourism

14. The Proponent shall ensure that all passengers (clients and staff) are aware of the Proponent's responsibilities and requirements regarding wildlife and wildlife habitat protection. This should include pre-landing briefings on wildlife sensitivities and potential hazards, proper wildlife viewing techniques and safety practices.
15. While on the cruise ship or zodiacs, the Proponent shall limit viewing time of each concentration of marine mammals to a maximum of thirty (30) minutes in order to minimize disturbance.
16. 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.
17. The Proponent shall ensure that visitation of cliffs used by nesting and breeding birds is restricted to zodiacs only, and then only during morning and early afternoon hours. Noise should be kept to a minimum when visiting these bird colonies.
18. The Proponent shall ensure that all passengers (clients and staff) are aware of the Proponent's responsibilities and requirements regarding archaeological or palaeontological sites that are encountered during land-based activities. This should include pre-landing briefings

explaining the prohibitions regarding removal of artifacts, and defacing or writing on rocks and infrastructure.

19. The Proponent is strongly advised to provide sufficient advance notice communities where a landing is planned as part of project activities.
20. The Proponent should use existing trails where possible during project activities on land.

Other

21. 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.
22. The Proponent should, to the extent possible, hire local people.
23. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.

MONITORING AND REPORTING REQUIREMENTS

In addition, the Board is recommending the following:

Wildlife Interaction Report

1. The Proponent shall submit a Wildlife Interaction Report to Government of Nunavut - Department of Environment upon completion of the project. The report must contain a description of all wildlife interactions including: the date, time of day, location, and species of wildlife encountered; the age, class, and gender of wildlife encountered; group size and behavior of wildlife at detection; in addition to situational details during interaction such as speed of yacht/small craft and distance of animals from yacht/small craft. Further, the Proponent shall include details regarding the species, date, and location of any deceased animals encountered during project activities.

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 (NPC) 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: (867) 979-7800).

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 Waste/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 a waste manifest or the appropriate transportation of dangerous goods (TDG) documentation accompany all potential hazardous samples and/or materials that are transported off site. Further, the Proponent shall ensure that the shipment of waste is registered with the Government of Nunavut Department of Environment (GN-DoE). Contact the Manager of Pollution Control and Air Quality at (867) 975-7748 to obtain a manifest if hazardous waste will be generated during project activities.

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 *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<http://laws-lois.justice.gc.ca/eng/acts/M-7.01/>).
4. 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.
5. The *Wildlife Act* (<http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html>) which contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
6. 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**.
7. 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/>). The Proponent must ensure that proper shipping documents accompany all movements of dangerous goods. The Proponent must register with the Government of Nunavut, Department of Environment Manager of Pollution Control and Air Quality at 867-975-7748.
8. The *Arctic Waters Pollution Prevention Act* (<http://laws-lois.justice.gc.ca/eng/acts/A-12/>).
9. The *Canada Shipping Act, 2001* (<http://laws-lois.justice.gc.ca/eng/acts/C-10.15/>).
10. The *Marine Liability Act* (<http://laws-lois.justice.gc.ca/eng/acts/M-0.7/>).

CONCLUSION

The foregoing constitutes the Board's screening decision with respect to the Silversea Cruises Limited "MS Silver Explorer, North Atlantic Adventure".

Dated September 1, 2016 at Arviat, NU.



Elizabeth Copland, 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 (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: June 2015

Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
Eskimo Curlew	Endangered	Schedule 1	EC
Ivory Gull	Endangered	Schedule 1	EC
Ross's Gull	Threatened	Schedule 1	EC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	EC
Rusty Blackbird	Special Concern	Schedule 1	GN
Peregrine Falcon	Special Concern (<i>anatum-tundrius</i> complex ³)	Schedule 1 - Threatened (<i>anatum</i>) Schedule 3 – Special Concern (<i>tundrius</i>)	GN
Short-eared Owl	Special Concern	Schedule 3	GN
Red Knot (<i>rufa</i> subspecies)	Endangered	Schedule 1	EC
Red Knot (<i>islandica</i> subspecies)	Special Concern	Schedule 1	EC
Horned Grebe (Western population)	Special Concern	Pending	EC
Red-necked Phalarope	Special concern	Pending	EC
Buff-breasted Sandpiper	Special concern	Pending	EC
Felt-leaf Willow	Special Concern	Schedule 1	GN
Porsild's Bryum	Threatened	Schedule 1	GN
Peary Caribou	Endangered	Schedule 1	GN
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Schedule 1	GN
Polar Bear	Special Concern	Schedule 1	GN/DFO
Grizzly Bear	Special Concern	Pending	GN
Wolverine	Special Concern	Pending	GN
Atlantic Cod, Arctic Lakes	Special Concern	Pending	DFO
Atlantic Walrus	Special Concern	Pending	DFO
Beluga Whale (Cumberland Sound population)	Threatened	Schedule 2	DFO
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Beluga Whale (Eastern High Arctic – Baffin Bay population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Canada – West Greenland population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Arctic population)		Schedule 2	DFO
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO

Note: DFO: Fisheries and Oceans Canada; EC: Environment Canada; GN: Government of Nunavut

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.

³ The *anatum* subspecies of Peregrine Falcon is listed on Schedule 1 of SARA as threatened. The *anatum* and *tundrius* subspecies of Peregrine Falcon were reassessed by COSEWIC in 2007 and combined into one subpopulation complex. This subpopulation complex was assessed by COSEWIC as Special Concern.

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 Inventory
c)	Construction of linear disturbances, Extractive disturbances, Impounding disturbances and other land disturbance activities	Archaeological/ Palaeontological Inventory or Assessment 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*¹ to issue such permits.

- 2) The permittee/proponent shall not operate any vehicle over a known or suspected archaeological or palaeontological site.

¹P.C. 2001-1111 14 June, 2001

- 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 *Nunavut Land Claims 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*², the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under

² s. 51(1)

the *Nunavut Archaeological and Palaeontological Sites Regulations*³, 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 Nunavut Land Claims 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.*

³ P.C. 2001-1111 14 June, 2001

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, Language, Elders and Youth (CH), and the contract archaeologist(s) will ensure proper preservation of heritage resources in the Nunavut Territory. The roles of each are briefly described.

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 Nunavut Land Claims 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*

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.