



**SCREENING DECISION REPORT
NIRB FILE NO.: 13UN034**

AANDC File No.: 865340
NWB File No.: 3AM-IQA0611

November 3, 2014

To: The Honourable Bernard Valcourt
Minister of Aboriginal Affairs and Northern Development
10 rue Wellington
Gatineau, QC K1A 0H3

Cc: Thomas Kabloona
Chairperson, Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU

Sent via email: minister@aandc.gc.ca; bernard.valcourt@parl.gc.ca; thomas.kabloona@nwb-oen.ca

Re: **Screening Decision for the City of Iqaluit's "Application for Water Licence Renewal" Project Proposal, Qikiqtani Region, 13UN034**

Dear Mr. Bernard Valcourt:

The primary objectives of the Nunavut Impact Review Board (NIRB) are set out in Section 12.2.5 of the Nunavut Land Claims Agreement (NLCA) as follows:

"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."

Section 12.4.4 of the NLCA states:

"Upon receipt of a project proposal, NIRB shall screen the proposal and indicate to the Minister in writing that:

- a) *the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;*
- b) *the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review;*
- c) *the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or*
- d) *the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned."*

NIRB ASSESSMENT AND DECISION

After a thorough assessment of all material provided to the Board (please see *Procedural History* and *Project Activities* in **Appendix A**), in accordance with the principles identified within Section 12.4.2 of the NLCA, the decision of the Board as per Section 12.4.4 of the NLCA is:

12.4.4 (a): the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5.

RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS (pursuant to Section 12.4.4(a) of the NLCA)

The Board is recommending that the following or similar project-specific terms and conditions be imposed upon the Proponent through all relevant legislation:

General

1. The City of Iqaluit (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 comprising its project proposal as provided to the NIRB (revised NIRB Part 1 and Part 2 forms, July 15, 2014) and as formed its application with the Nunavut Water Board (Application for Water Licence Renewal, October 2, 2012; Annual Reports, Management Plans and Manuals, and applicable City policies, September 3, 2013 to July 16, 2014).
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Water Use

5. The Proponent shall not extract water from any fish-bearing waterbody unless the water intake hose is equipped with a screen of appropriate mesh size to ensure that there is no entrapment of fish. Small lakes or streams should not be used for water withdrawal unless approved by the Nunavut Water Board.
6. The Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless approved by the Nunavut Water Board.

Fuel and Chemical Storage

7. Unless otherwise permitted, the Proponent shall locate all fuel and hazardous materials a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
8. Unless otherwise permitted, the Proponent shall ensure that re-fuelling of all equipment occurs a minimum of thirty-one (31) metres away from the high water mark of any water body.
9. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
10. The Proponent shall use adequate secondary containment or a surface liner (e.g., self-supporting insta-berms and fold-a-tanks) when storing barreled fuel and chemicals at all locations and at all refueling stations. Appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) must be readily available during any transfer of fuel or hazardous substances, as well as at vehicle-maintenance areas and at drill sites.
11. The Proponent shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site for treatment.
12. 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.

Landfill Operations

13. The Proponent shall dispose of non-hazardous materials only at the landfill and shall limit this disposal to those materials listed as acceptable for disposal. Hazardous materials, materials listed as unacceptable for disposal at the landfill, or materials that contain asbestos, fluorescent tubes or ozone depleting substances are not to be disposed of in the landfill and must be disposed of at an authorized facility, unless otherwise permitted.
14. The Proponent shall ensure that the site is kept free of debris through the use of fencing and other measures to limit wind dispersal of waste materials off-site.
15. The Proponent shall take appropriate dust suppression measures when conducting soil topping of landfill materials, or landfill capping activities.

16. All operations personnel shall be adequately trained prior to commencement of landfill operations, and shall be made aware of all operational guidelines and Proponent commitments relating to the Project.
17. The Proponent shall clearly stake all boundaries so they remain visible to other land users.
18. The Proponent shall ensure there is no obstruction of natural drainage, flooding or channel diversion from access or other structures or facilities.
19. The Proponent shall ensure that silt fences/curtains are installed down gradient of any construction activities.
20. The Proponent shall maintain an undisturbed buffer zone between the periphery of the landfill sites and the high water mark of any water body that is of an adequate distance to ensure erosion control.
21. The Proponent shall stockpile all overburden/topsoil generated during construction using proper erosion prevention measures. Upon completion of operation, the Proponent shall back fill, reclaim/re-contour and re-vegetate all disturbed areas.

Wildlife - General

22. 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.
23. 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

24. The Proponent shall not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, the Proponent shall take precaution to avoid further interaction and or disturbance (e.g., a 100 metre buffer around the nests). If active nests of any birds are discovered (i.e. with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have left the nest.

Caribou Disturbance

25. The Proponent shall cease activities, including vehicle traffic along roadways, that may interfere with the migration or calving of caribou, until the caribou have passed or left the area.
26. The Proponent shall not block or cause any diversion to caribou migration, and shall cease activities likely to interfere with migration, such as movement of equipment or personnel, until such time as the caribou have passed.
27. During the period of May 15 to July 15, when caribou are observed within 1 km of project operations, the Proponent shall suspend all operations, including movement of equipment or personnel. Following July 15, if caribou cows or calves are observed within 1 km of project operations, the Proponent shall also suspend all operations in the vicinity, including movement of equipment or personnel, until caribou are no longer in the immediate area.

All-Weather Road and Ground Disturbance

28. The Proponent shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles must be suspended if rutting occurs.
29. The Proponent shall implement suitable erosion and sediment suppression measures on disturbed areas before, during and after construction in order to prevent sediment from entering any water body.
30. The Proponent shall ensure that all project vehicles are fitted with standard and well-maintained noise suppression devices, and that engine idling is also minimized.
31. The Proponent should consider the potential for public traffic to utilize project roads, and in its design features and consideration of public safety, ensure adequate posting of signage indicating speed limit(s) along the road and within project site(s).

Restoration of Disturbed Areas

32. The Proponent shall ensure that all disturbed areas are restored to a stable or pre-disturbed state to the extent possible upon reclamation and closure of project activities.
33. The Proponent shall remove all fuel and equipment upon abandonment and ensure that the landfill continued to be monitored as necessary to ensure long-term structural integrity until fully remediated.

Other

34. The Proponent should, to the extent possible, hire local people and consult with local residents regarding their activities in the region.
35. Any activity related to this application, and outside the original scope of the project as described in the application and considered within this decision, will be considered a new project and should be submitted to the NIRB for Screening.

MONITORING AND REPORTING REQUIREMENTS

In addition, the Board is recommending the following:

Updated Plans

1. The Proponent shall submit to the NIRB, Project-specific operational, mitigation and/or monitoring plans and details as updated and/or finalized including, but not limited to, the following:
 - a. West 40 Landfill Decommissioning Plan;
 - b. Spill Contingency Plan (to incorporate all updated plans and activities);
 - c. Emergency Response Plan;
 - d. Fire Safety Plan;
 - e. Hazardous Waste Management Plan (including household hazardous waste and waste electronics);
 - f. Abandonment and Restoration Plan;
 - g. Solid Waste Management Plan;

- h. Decommissioning plans for the Water Treatment Plant, West 40 Wastewater Treatment Plant and the proposed Solid Waste Management Site;
- i. Operational, Contingency and Management Plan (Design and Operations and Maintenance Plan);
- j. Site Development Plan;
- k. Landfill Safety Plan; and
- l. Site mapping showing all components.

OTHER NIRB CONCERNS AND RECOMMENDATIONS

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

Bear and Carnivore Safety

1. The Proponent review the bear/carnivore detection and deterrent techniques outlined in "Safety in Grizzly and Black Bear Country" which can be down-loaded from this link: http://www.enr.gov.nt.ca/live/documents/content/Bear_Safety.pdf. Note that some recommendations in this manual are also relevant to polar bears. There is a DVD about polar bears and safety available from Nunavut Parks at the following link <http://www.nunavutparks.com/english/visitor-information/suggested-resources.html> and a "Safety in Polar Bear Country" pamphlet from Parks Canada at the following link <http://www.pc.gc.ca/eng/pn-np/nu/auyuittuq/visit/visit6/d/i.aspx>.
2. Any problem wildlife or any interaction with carnivores should be reported immediately to the local Government of Nunavut, Department of Environment Conservation Office (Iqaluit Conservation Office, (867) 439-2004).

Species at Risk

3. The Proponent review Environment Canada's "Environment Assessment Best Practice Guide for Wildlife at Risk in Canada", available at the following link: http://cpc.lac-bac.gc.ca/100/200/301/environment_can/cws-scf/environmental_assessment-ef/ca_best_practices_2004_e.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.

Change in Project Scope

4. All Authorizing Agencies shall notify the NIRB of any changes in operating plans or conditions associated with this project prior to any such change.

REGULATORY REQUIREMENTS

The Proponent is also advised that the following legislation may apply to the project:

1. The Proponent is advised that the *Canadian Environmental Protection Act* (<http://laws.justice.gc.ca/en/C-15.31/>) lists calcium chloride (CaCl) as a toxic substance.
2. The *Fisheries Act* (<http://laws-lois.justice.gc.ca/eng/acts/F-14/index.html>).

3. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (<http://www.canlii.org/ca/sta/n-28.8/whole.html>).
4. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<http://laws-lois.justice.gc.ca/eng/acts/M-7.01/>).
5. The *Species at Risk Act* (<http://laws-lois.justice.gc.ca/eng/acts/S-15.3/index.html>). Attached in **Appendix B** is a list of Species at Risk in Nunavut.
6. 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.
7. 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 C**.
8. The *Transportation of Dangerous Goods Regulations*, *Transportation of Dangerous Goods Act* (<http://www.tc.gc.ca/eng/tdg/safety-menu.htm>), 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.

Validity of Land Claims Agreement

Section 2.12.2

Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated November 3, 2014 at Churchill, MB.



Elizabeth Copland, Chairperson

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

Appendix A

Procedural History and Project Activities

Procedural History

On November 5, 2012 the Nunavut Impact Review Board (NIRB or Board) received the City of Iqaluit's (the Proponent) "Application for Water Licence Renewal" proposal directly from the Proponent. On November 14, 2012 the NIRB issued correspondence to the Proponent advising that the Board would be required to await a formal referral from an Authorizing Agency prior to commencing with its screening assessment. While awaiting referral from an Authorizing Agency, the NIRB conducted a preliminary completeness check and found that the proposal did *not* contain sufficient information to permit proper screening. On July 11, 2013 the NIRB issued correspondence to the Proponent outlining the additional information required and requesting that it be provided to the NIRB on or before July 25, 2013. On July 25, 2013 the NIRB received an indication from the Proponent that the requested information would be available on or before September 30, 2013, and again on August 28, 2013 the NIRB received an updated notice that information would be submitted to the Board by November 30, 2013. On October 21, 2013 the NIRB received a formal referral from the Nunavut Water Board (NWB) to commence screening of this proposal and on November 1, 2013 the NIRB issued an application acknowledgement, requested additional information and assigned the proposal file number 13UN034.

On December 2, 2013 the Board requested an extension to its screening timeline from the Minister of Aboriginal Affairs and Northern Development as it had not yet received the outstanding information from the Proponent as requested.

On February 5, 2014 the NIRB requested that the Proponent provide an update on the status of the requested information. On February 6, 2014 the Proponent noted that it had made additional submissions to the NWB and forwarded the requested information on hazardous waste management and the abandonment and restoration plan to the NIRB and further noted that it was completing the remaining requested documents. On March 26, 2014 the NIRB again requested that the Proponent provide an update on the status of the requested information.

On June 11, 2014 the NIRB further requested that the Proponent provide an indication as to its anticipated timing for submission of requested information, and on June 26, 2014 the Board received an updated notice that information would be submitted to the NIRB by July 15, 2014. On July 23, 2014 the Board received additional information from the Proponent as requested and proceeded with its assessment.

This project proposal was distributed to community organizations in Iqaluit, as well as to relevant federal and territorial government agencies, and Inuit organizations. The NIRB requested that interested parties review the proposal and provide the Board with any comments or concerns by October 9, 2014 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 and socio-economic effects; and if so, why;
- Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (providing any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On or before October 9, 2014 the NIRB received comments from the following interested parties (see Comments and Concerns section below):

- **Government of Nunavut (GN)**
- **Environment Canada (EC)**

On or before October 16, 2014 the NIRB also received submissions from the following interested parties:

- **Aboriginal Affairs and Northern Development Canada (AANDC)**
- **Fisheries and Oceans Canada (DFO)**

Comments and Concerns

The following is a *summary* of the comments and concerns received during the public commenting period for this file:

Government of Nunavut (GN):

- The GN noted concern with the Proponent's waste management plans, noting that they required modification and revision in order to mitigate potential adverse environmental impacts.
- The GN recommended that the Proponent update its Solid Waste Management Plan to incorporate information and expertise gained during the Iqaluit dump fires in the summer of 2014.

Aboriginal Affairs and Northern Development Canada (AANDC):

- AANDC submitted comments noting that in its view, Schedule 12-1, Item 3 of the Nunavut Land Claims Agreement (NLCA) would apply to exempt this project from screening because the project involves the "provision of a service within an established municipality".

Following the receipt of the AANDC comment submission, the Board issued correspondence to AANDC clarifying that as the Board has concluded that the project was not exempt from screening under NLCA Schedule 12-1, it would continue with the screening and would be issuing a Screening Decision Report to the Minister in due course.¹ This decision reflects the Board's consistent and long-standing approach to interpretation of the exemptions in NLCA

¹ The NIRB response to AANDC was provided on October 21, 2014 and is available from the NIRB's online public registry at: <http://np.nirb.ca/01-SCREENINGS/ACTIVE%20SCREENINGS/13UN034-City%20of%20Iqaluit%20Type%20A%20Water%20Licence%20Renewal/02-DISTRIBUTION/CORRESPONDENCE/>

Schedule 12-1 and the Board's specific analysis of this project proposal, specifically whereby the Nunavut Water Board's initial referral of the project proposal to the NIRB for assessment indicated that a public hearing would be required as a part of its licensing process. The NIRB notes that NLCA Schedule 12-1, item 5 may apply to proposals for which a water use did not require a public hearing pursuant to NLCA 13.7.3. Given the NWB notification of hearing, the NIRB remains of the opinion that assessment was both warranted, and required for this proposal.

Environment Canada (EC):

- EC provided general comments and recommendations regarding the following:
 - Prohibition of deleterious substances in waters frequented by fish, or in any place that a deleterious substance could enter such water, under the *Fisheries Act*; and
 - Potential impacts to wildlife, migratory birds and Species at Risk.
- EC noted that it was unclear whether the Proponent would be undertaking groundwater sampling and if so, where monitoring wells would be located.

Fisheries and Oceans Canada (DFO):

- DFO requested that the Proponent provide additional information regarding fish community(ies) and other aquatic species that may inhabit, use, or rely on, Lake Geraldine and/or the outlet stream of Lake Geraldine and the anticipated effects from the proposed activities, including the operation of the Lake Geraldine Dam on these communities and/or species.
- DFO made recommendations regarding avoiding harm to fish and fish habitat, use of fish screens on intake hoses, water withdrawal rates, and the identification of an alternative water source.

All comments provided to NIRB regarding this project proposal can be viewed on NIRB's public registry, at the following location:

<http://ftp.nirb.ca/01-SCREENINGS/COMPLETED%20SCREENINGS/>

Project Activities

The proposed project is located in the South Baffin Region within the municipality of Iqaluit. The City of Iqaluit (the Proponent) is applying to renew and amend its Type A water licence (which expired in 2011 and was extended for a term of one year to 2012) with the NWB to upgrade existing and construct new waste management facilities in Iqaluit. The Proponent has requested a renewed term of licence from October 2013 to October 2018. The proposed project activities associated with the renewal and amendment application include:

- Upgrade, operation and the eventual decommissioning of the Water Treatment Plant and other associated systems that supply water extracted from Lake Geraldine for municipal use;
 - Proposed maximum annual withdrawal of 1,100,000 cubic metres (m³) of water; to be gravity fed and transported to the Water Treatment Plant via a high density polyethylene insulated pipe 360 metres long and 400 millimetres in diameter;

- Storage of hazardous materials and chemicals (including hydrofluorosilicic acid, chlorine gas, caustic soda and sodium hypochlorite);
- Operation and the eventual decommissioning of a solid waste management facility at the existing West 40 Landfill and associated infrastructure;
 - Collection and separation of solid waste into general waste, metals, tires and hazardous waste:
 - Compaction of solid non-hazardous residential and commercial waste and covered with material such as crushed wood;
 - Scrap metal, tires, hazardous waste, and empty barrels/fuel drums stored and transported south for appropriate disposal;
- Upgrade, operation and decommissioning of infrastructure for managing wastewater at the existing West 40 Wastewater Treatment Plant and backup Sewage Lagoon;
 - Use of a utilidor system;
 - Contaminated snow transported to the sewage lagoon;
- Snow and soil contaminated with hazardous waste (e.g. fuel) treated and disposed of at Nunatta Environmental landfarm², which is within the Iqaluit municipality;
- Construction, operation, and the eventual decommissioning and closure of a new Solid Waste Management Site approximately 7.5 kilometres (km) northwest of Iqaluit;
 - Site survey and boundary delineation to take place as part of the design contract and projected in the spring of 2015;
 - Potential future development of incineration;
- Equipment to include:
 - Heavy equipment including loaders, garbage trucks, water and sewer trucks and shredder, as well as light vehicles;
 - Bulb buster (to safely extract mercury from florescent light bulbs before disposal), Freon remover, two pumps (one with two inch hose and one with four inch hose) at the retention pond;
- Storage of fuel in outside storage tanks with refueling to take place through a fuel distributor; and
- Construction of an access road approximately four (4) km northwest of Iqaluit and to be 8.5 m wide (not including the ditch and embankment) and 3.97 km long.

Within its application materials, the Proponent initially indicated that the scope of the Project would also include consideration of the following components and/or activities, however the Proponent had confirmed later in the assessment that none of these were to be included within the NIRB's current consideration and assessment. As such, the Board's consideration has not

² The NIRB notes that the Nunatta Environmental landfarm was previously screened by the NIRB (File No. 12UN019) and allowed to proceed subject to the terms and conditions contained within the NIRB's May 14, 2012 Screening Decision Report, and authorizations as required for the landfarm to proceed. The NIRB's Screening Decision Report is available online at: <http://np.nirb.ca/01-SCREENINGS/COMPLETED%20SCREENINGS/2012/12UN019-Nunatta%20Environmental-Land%20Farm/03-DECISION/>.

included the following activities, and additional assessment by the NIRB would be required at such time as the Proponent wishes to undertake these or other activities:

- Composting and recycling facility;
- Reuse centre;
- Supplementary water supply in addition to Geraldine Lake;
- Municipal Quarry; and
- Incineration of waste.

Appendix B

Species at Risk in Nunavut

This list includes species listed on one of the Schedules of SARA (*Species at Risk Act*) and under consideration for listing on Schedule 1 of SARA. These species have been designated as at risk by COSEWIC (Committee on the Status of Endangered Wildlife in Canada). This list may not include all species identified as at risk by the Territorial Government.

- 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.

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: July 2013

Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
Peary Caribou	Endangered	Schedule 1	Government of Nunavut (GN)
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Schedule 1	GN
Polar Bear	Special Concern	Schedule 1	GN
Short-eared Owl	Special Concern	Schedule 1	GN
Peregrine Falcon	Special Concern (<i>anatum-tundrius</i> complex ³)	Schedule 1	GN
Rusty Blackbird	Special Concern	Schedule 1	GN
Felt-leaf Willow	Special Concern	Schedule 1	GN
Porsild's Bryum	Threatened	Schedule 1	GN
Eskimo Curlew	Endangered	Schedule 1	Environment Canada (EC)
Ivory Gull	Endangered	Schedule 1	EC
Red Knot (<i>rufa</i> subspecies)	Endangered	Schedule 1	EC
Ross's Gull	Threatened	Schedule 1	EC
Red Knot	Special Concern	Schedule 1	EC

Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
(<i>islandica</i> subspecies)			
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	EC
Grizzly Bear	Special Concern	Pending	GN
Wolverine (Western population)	Special Concern	Pending	GN
Horned Grebe (Western population)	Special Concern	Pending	EC
Buff-breasted Sandpiper	Special Concern	Pending	EC
Atlantic Cod, Arctic Lakes	Special Concern	No schedule	Fisheries and Oceans Canada (DFO)
Atlantic Walrus	Special Concern	Pending	DFO
Beluga Whale (Cumberland Sound population)	Threatened	Pending	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
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO
Narwhal	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.

³ 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, and was added to Schedule 1 of SARA in July 2012.

Appendix C
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 Aboriginal Affairs and Northern Development 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*³ to issue such permits.

³ P.C. 2001-1111 14 June, 2001

- 2) The permittee/proponent shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 3) The permittee/proponent shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 4) The permittee/proponent shall immediately contact CH at (867) 934-2046 or (867) 975-5500 should an archaeological site or specimen, or a palaeontological site or fossil, be encountered or disturbed by any land use activity.
- 5) The permittee/proponent shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation until permitted to proceed with the authorization of CH.
- 6) The permittee/proponent shall follow the direction of CH in restoring disturbed archaeological or palaeontological sites to an acceptable condition. If these conditions are attached to either a Class A or B Permit under the Territorial Lands Act Aboriginal Affairs and Northern Development 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*⁴, the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*⁵, it is illegal to alter or disturb any palaeontological or archaeological site in Nunavut unless permission is first granted through the permitting process.

Definitions

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

"archaeological site" means a place where an archaeological artifact is found.

"archaeological artifact" means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the 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.*

⁴ s. 51(1)

⁵ 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 Aboriginal Affairs and Northern Development 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.