SCREENING DECISION REPORT
NIRB File No.: 09RN066

INAC File No.: N2010F0017
KIA File No. KTL304F049

September 2, 2010

Honourable John Duncan
Minister of Indian and Northern Affairs Canada
Indian and Northern Affairs Canada
Ottawa, ON

Via email: Duncan.J@parl.gc.ca and to minister@inac-ainc.gc.ca

Re: Screening Decision for Sabina Gold & Silver Corp's Land Use Permit Application with INAC for its "Bathurst Inlet to Back River Winter Road and Barge Landing" project proposal – Additional Application Terms and Conditions (09RN066)

Dear Honourable John Duncan:

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 12.4.3 of the NLCA states that:

> *Any application for a component or activity of a project proposal that has been permitted to proceed in accordance with these provisions shall be exempt from the requirement for screening by NIRB unless:*
>
> *(a) such component or activity was not part of the original project proposal; or*
>
> *(b) its inclusion would significantly modify the project.*

NIRB ASSESSMENT AND DECISION

The NIRB has completed a review of Sabina Gold & Silver Corp's (Sabina or the Proponent) request to Indian and Northern Affairs Canada (INAC) for a new Land Use Permit for its "Bathurst Inlet to Back River Winter Roads and Barge Landing" project.

After a thorough assessment of the current project proposal, previous application information and the comments received (please see *Procedural History* and *Project Activities* in **Appendix A)**, in accordance with Section 12.4.3 of the NLCA, the Board has determined that this request will result in a change to the original scope of the project. Therefore, the NIRB is re-issuing the recommended project-specific terms and conditions contained in the Screening Decision Reports for NIRB file No. 09RN066, dated February 11, 2010, in addition to new terms and conditions which are designed to mitigate any potential impacts to the environment the additional project activities may incur, as per Section 12.4.4(a) of the NLCA.

PREVIOUSLY APPROVED PROJECT-SPECIFIC TERMS AND CONDITIONS

The following terms and conditions were previously approved by the NIRB for file 09RN066 in Screening Decision Reports dated **February 11, 2010** which are available from the NIRB's ftp site at the following link http://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/:

General

1. Sabina Gold and Silver Corporation (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 (NIRB Part 1 Form, October 16, 2009; NIRB PSIR Form, October 19, 2009; Non-Technical Summary, October 16, 2009; Spill Contingency Plan, October 19, 2009; Abandonment and Restoration Plan, October 19, 2009; Covering Email to the NIRB, October 19, 2009) and to Indian and Northern Affairs Canada (Land Use Permit Application Form, October 16, 2009).
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Water

5. 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.
6. The Proponent shall not utilise water for the purposes of constructing or maintaining winter roads or an ice airstrip without prior authorization from the Nunavut Water Board.

Waste

7. The Proponent shall backhaul all solid wastes to a previously permitted camp for proper disposal in accordance with any licences or permits in place at those facilities.

8. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of. All wastes shall be kept inaccessible to wildlife at all times.
9. The Proponent shall ensure that the appropriate transportation of dangerous goods (TDG) documentation accompany all potential hazardous samples that are transported off site.

Fuel and Chemical Storage

10. The Proponent shall locate all fuel and other 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.
11. The Proponent shall not store chemicals, fuel, or other materials on the surface of frozen lakes or streams, except for that which is intended for **immediate use.**
12. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
13. The Proponent shall construct an impermeable dyke around each stationary fuel container or group of stationary fuel containers where one container has the capacity exceeding 4,000 litres.
14. The fuel storage facilities of the Proponent, including tanks, hoses, pumps, fuel transfer lines and associated mechanical connections and valves shall be installed and maintained in accordance with the Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products (CCME Environmental Code) and the National Fire Code, any reasonable modifications or improvements that are deemed necessary shall be approved by the Engineer.
15. The Proponent shall examine all fuel and chemical storage containers for leaks. All leaks should be prepared immediately.
16. The Proponent shall use secondary containment or a surface liner (drip pans, fold-a-tanks, etc) at all refuelling stations. The Proponent shall ensure that the vehicles transporting equipment and materials along the winter road routes are equipped with appropriate spill kits.
17. The Proponent shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site.
18. The Proponent shall ensure that all on site 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.
19. The Proponent shall ensure that all spills are contained and completely cleaned up with shovels and absorbent rags and that any leaks detected are repaired and monitored at all times.
20. The Proponent shall ensure that all ethylene glycol (antifreeze) is managed in accordance with the Environmental Protection Act (EPA) of NWT, and Transportation of Dangerous Goods Act (TDGA).

21. The Proponent shall have a spill contingency plan in place prior to commencement of the land use operation. Waste tracking, or "manifesting" should be implemented to ensure proper use, storage, and management of materials.

22. The Proponent shall have one extra fuel storage container on site equal to, or greater than, the size of the largest fuel container.

Wildlife

23. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.

24. 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.

25. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum altitude of 610 metres above ground level unless there is a specific requirement for low-level flying, which does not disturb wildlife and migratory birds.

26. The Proponent shall ensure that aircraft maintain a vertical distance of 1000 metres and a horizontal distance of 1500 metres from any observed groups (colonies) of migratory birds.

27. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.

28. 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.

29. The Proponent shall cease activities that may interfere with migration or calving of caribou or muskox, until the caribou or muskox have passed or left the area.

30. The Proponent shall not block or cause any diversion to caribou migration, and shall cease activities likely to interfere with migration such as the movement of equipment or personnel until such time as the caribou have passed.

31. The Proponent shall take all possible measures to avoid wildlife encounters. Any problem wildlife should be reported immediately to the Government of Nunavut, Department of Environment.

32. The Proponent shall ensure all project staff are trained in appropriate bear/carnivore detection and deterrent techniques.

33. The Proponent shall ensure that the road alignment avoids known environmentally sensitive areas (denning, nesting etc.) by a minimum of 250 metres.

34. The Proponent shall report any road kills or other wildlife problems to the nearest Renewable Resources Officer.

35. The Proponent shall ensure that there is no hunting along the winter roadway by employees of the company or any contractors hired.

36. The Proponent shall not conduct any activity associated with the land use operation during critical periods of wildlife cycles (e.g. caribou migration, calving, fish spawning or raptor nesting).

Physical Environment

37. The Proponent shall not use any material other than water in the construction of ice bridges. Stream crossings shall be removed or notched prior to spring break-up.
38. The Proponent shall remove all snow fills from stream crossings prior to spring break-up.
39. The Proponent shall not allow any ice bridge to hinder the flow of water of any stream.
40. The Proponent shall scout all lines and select the best route prior to the movement of equipment.
41. The Proponent shall confine the line to a maximum width of 10 metres unless otherwise authorized in writing by a land use inspector.
42. The Proponent shall not move any equipment or vehicles without prior testing the thickness of the ice to ensure the lake is in a state capable of fully supporting the equipment or vehicles.
43. The Proponent shall ensure that stream crossings are located to minimize approach grades. Bank disturbance is to be avoided, and mechanized clearing should not be done immediately adjacent to any watercourse.
44. 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.
45. The Proponent shall suspend overland travel of equipment or vehicles if rutting occurs. Likewise, upon spring break up; or at such a time as the shorelines of frozen water bodies begin to thaw, the Proponent shall suspend all travel over water bodies if disturbance to the banks or shorelines of any definable water body occurs.
46. The Proponent shall ensure that the land use area is kept clean and tidy at all times.
47. The Proponent shall not erect camps or store material on the surface ice of lakes or streams.

Restoration

48. The Proponent shall remove all garbage, fuel and equipment upon abandonment.
49. The Proponent shall remove from Territorial Lands, all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material upon abandonment.
50. The Proponent shall complete all clean-up and restoration of the lands used prior to the end of each field season.

Archaeological and Historical Sites

51. The Proponent shall commission a survey of archaeological resources along the proposed road route(s) and any alternative route(s) prior to the construction or use of such road routes.
52. The Proponent shall avoid all known archaeological sites within the project area.

Other

53. The Proponent should, to the extent possible, hire local people and consult with local residents regarding their activities in the region.

54. Any activity related to this application, and outside the original scope of the project as described in the application, will be considered a new project and should be submitted to the NIRB for Screening.

55. The Proponent shall submit an updated Spill Contingency Plan (Plan) to the NIRB within 30 days of the Board's decision. The updated Plan shall at a minimum:

    a. Include measures for spill contingency relating to the D'Arcy Lake ice airstrip. Section "1.0 Introduction" of the current Spill Contingency Plan indicates that the plan "was prepared to outline response measures for activities associated with the construction, operation and closure of the winter road. The existing camps operate under their own Spill Contingency Plans." The airstrip **must** be addressed by the updated Plan.

    b. Address the refuelling of aircraft at D'Arcy Lake, including how fuel transfer will be undertaken and a description of the minimum secondary containment measures to be employed during refuelling.

    c. Provide an update to Section "5.2 Spill Response Procedure," where the listing of measures under (Item 4) "Ice" appears to be incomplete.

    d. Include an upgrade to the Proponent's requirement for 3 spill response kits as found in Section "5.5 Disposal" (Item 9) to a total of 4, with the additional kit being located at the D'Arcy Lake airstrip.

NEW 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 ***additional*** project-specific terms and conditions be imposed upon the Proponent through all relevant legislation:

56. The Proponent shall submit an updated Spill Contingency *and* Emergency Response Plan that provides planning details regarding the storage of fuel and other chemicals at the Bathurst Inlet landing site, the fuel barge to be over-wintered at Bathurst Inlet, and the plan of action for response to a potential fuel spill within the Bathurst Inlet area or other remote Arctic location. The updated Spill Contingency and Emergency Response Plan shall be submitted to the NIRB, the Government of Nunavut – Department of Environment, and to Environment Canada for review and approval, prior to the commencement of operations.

57. The Proponent shall ensure the placement of local area marine mammal monitors onboard all vessels transporting fuel or materials for the Project into Bathurst Inlet. Where marine mammals are found to be in the vicinity of shipping activities, the following protocol shall be followed, subject to vessel and human safety considerations:

    a. Wildlife will be given the right of way.

    b. The vessel is to maintain a straight course and constant speed.

c. Where marine mammals appear to be trapped or disturbed by vessel movements, the vessel will stop until mammals have moved away from the area.

58. The Proponent will contract only Transport Canada certified shippers to transport fuel and equipment via barge for the Project, and will require those shippers transporting fuel and chemicals to carry the most up-to-date emergency response and spill handling equipment as recommended and accepted by the Government of Canada. The shipping contractor shall ensure its crew is trained in the deployment of spill and emergency response equipment.

59. The Proponent shall carry, and require contracted shippers to carry, adequate insurance to fully compensate losses arising from a spill or accident, including but not limited to the loss of resources arising from the spill or accident and will apply where such spill or accident may occur during the overwintering of fuel barge(s) at Bathurst Inlet. Any claims are to be reported to proper officials with a copy to the NIRB.

MONITORING AND REPORTING REQUIREMENTS

The Board has previously recommended the following:

1. The Proponent shall submit a comprehensive annual report with copies provided to the NIRB and to the Government of Nunavut, Culture Language Elders and Youth by June 30th of each year of permitted activities. The annual report must contain, but not limited to, the following information:
    a. A summary of activities undertaken for the year, including: a map showing the location of all winter road routes built and/or utilised; photographs of the winter routes and the ice airstrip; a detailed summary of any consultations undertaken with Elders or other individuals regarding archaeological resources within the project area; results of archaeological reconnaissance completed during snow free periods; and a description of local hires and initiatives.

In addition, the Board is recommending the following:

2. The Proponent shall include in its annual report, details pertaining to the barge landing site at Bathurst Inlet, fuel and other chemical storage at the Bathurst Inlet landing site, as well as any details regarding the over-wintering of a fuel barge at Bathurst Inlet. The annual report shall be submitted to the NIRB, the Government of Nunavut, Department of Culture Language Elders and Youth, and also to the Department of Environment by June 30th of each year of permitted activities.

OTHER NIRB CONCERNS AND RECOMMENDATIONS

In addition to the project-specific terms and conditions, the Board has previously recommended the following:

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.nwtwildlife.com/Publications/safetyinbearcountry/safety.htm.

2. The Proponent maintain a record of wildlife observations while operating within the project area. The reports should include locations (i.e., latitude and longitude), species, number of animals, a description of the animal activity, and a description of the gender and age of animals if possible. Prior to conducting project activities, the Proponent should map the location of any sensitive wildlife sites such as denning sites, calving areas, caribou crossing sites, and raptor nests in the project area, and identify the timing of critical life history events (i.e., calving, mating, denning and nesting).

   Additionally, the Proponent should indicate potential impacts from the project, and ensure that operational activities are managed and modified to avoid impacts on wildlife and sensitive sites. A copy of this wildlife record or report should be submitted annually at the end of the operational season to the appropriate Government of Nunavut contacts.

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

4. INAC should also consider the importance of conducting regular Land Use Inspections, pursuant to the authority of the Federal Land Use Permit, while the project is in operation. The Land Use Inspections should be focused on ensuring the Proponent is in compliance with the conditions imposed through the Federal Land Use Permit.

5. NIRB would like to encourage the proponent to hire local people and services, to the extent possible.

6. NIRB advises the Proponent to consult with the local residents regarding their activities in the region.

7. Any amendment requests deemed by NIRB to be outside the original scope of the project will be considered as a new project.

REGULATORY REQUIREMENTS

The Proponent has been previously advised that the following legislation may apply to the project:

1. The *Fisheries Act* (http://laws.justice.gc.ca/en/showtdm/cs/F-14///en).

2. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (http://www.canlii.org/ca/sta/n-28.8/whole.html).

3. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (http://laws.justice.gc.ca/en/showtdm/cs/M-7.01).

4. The *Species at Risk Act* (http://laws.justice.gc.ca/en/showtdm/cs/S-15.3). Attached in **Appendix B** is a list of Species at Risk in Nunavut.

5. The *Nunavut Wildlife Act* 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.justice.gc.ca/en/showtdm/cs/N-28.6). The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix C.**

7. The *Navigable Waters Protection Act (NWPA)* (http://laws.justice.gc.ca/en/N-22/index.html).

In addition, the Proponent is also advised that the following legislation may apply to the project:

8. Nunavut's *Environmental Protection Act*, and its regulations, including the *Spill Contingency Planning and Reporting Regulations* (http://www.canlii.org/en/nu/laws/stat/rsnwt-nu-1988-c-e-7/73089/part-1/rsnwt-nu-1988-c-e-7-part-1.pdf).

9. The *Canada Shipping Act* (http://laws.justice.gc.ca/en/S-9/index.html).

10. The *Arctic Waters Pollution Prevention Act* (http://laws.justice.gc.ca/en/A-12/).

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 _____September 2, 2010_____ at Sanikiluaq, NU.

_____
Lucassie Arragutainaq, 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 July 6, 2010 the Nunavut Impact Review Board (NIRB or Board) received an application from Indian and Northern Affairs Canada (INAC) for a new Land Use Permit for Sabina Gold & Silver Corp.'s (Sabina) "Bathurst Inlet to Back River Winter Road and Barge Landing" project. The elements of this proposal have previously been screened by the NIRB under separate files (04RN015, 04RN101 and 09RN066).

Sabina currently proposes to move supplies and fuel from Bathurst Inlet to its Goose Lake, George Lake, and Hackett River camps via barge and winter road transport, and has applied for a new LUP with INAC to permit the following additional components and project activities which have not been previously screened by the NIRB:

- Establishment of a temporary camp at Bathurst Inlet;
- Establishment of an ice airstrip at Bathurst Inlet; and
- Storage of fuel at Bathurst Inlet including:
    - Drummed fuel (approximately 410,000 litres diesel, 61,500 litres gasoline, 410,000 litres aviation fuel, 7500 pounds of propane and 100 pounds of acetelyne) to be stored within secondary containment at the Bathurst Inlet lay down area
    - Bulk fuel (approximately 600,000 litres diesel) to be stored on barge prior to being transferred to tanks or sleighs for transport to Hackett River/Goose Lake camps via Cat-train (involves overwinter storage via barge freeze-in)

The NIRB has determined that the current request result in a change to the original scope of the project as previously screened, and as such, requested that potentially affected communities and other agencies provide comments on or before August 11, 2010.

On or before August 11, 2010 the NIRB received comments from the following interested parties:

- **Environment Canada (EC)**
- **Indian and Northern Affairs Canada (INAC)**
- **Government of Nunavut – Culture Language Elders and Youth (GN-CLEY)**
- **Government of Nunavut – Department of Environment (GN-DOE)**

On August 12, 2010, the NIRB provided an opportunity for the Proponent to respond to the concerns raised during the public commenting period. The Proponent provided a response to concerns raised by the parties on August 17, 2010.

All comments provided to NIRB regarding this project proposal can be viewed on NIRB's ftp-site, at the following location:
http://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/

Project Activities

This project is located within the Kitikmeot region, approximately 150 kilometres (km) south of the community of Cambridge Bay, and approximately 80 km from the outpost camp of Kingaok. The Proponent intends to move supplies and fuel from Bathurst Inlet to its Goose Lake, George Lake, and Hackett River camps via barge and winter road overland transport, in addition to the overwintering of a fuel barge at a barge landing site in Bathurst Inlet.

The original applications, which were screened in accordance with Part 4, Article 12 of the NLCA, included the following components and project activities:

- Establishment of winter road routes between Bathurst Inlet, George Lake camp, Goose Lake camp, and the Hackett River camp in the Back River area;
- Transportation of equipment, fuel and supplies to and from the previously established and separately permitted George Lake and Goose Lake camps via winter road;
- Shipment of fuel (approx. 600,000 litres) and supplies from southern port locations to a barge offloading area at Bathurst Inlet during summer months;
- Establishment of a barge landing site at Bathurst Inlet to include:
    - Lay down area for supplies
    - 700,000 litre tank farm (10 EnviroTanks) ***(later withdrawn from proposal)***
    - Equipment storage building
    - Temporary camp accommodations for 18 personnel ***(later withdrawn from proposal)***
- Fuel barge to overwinter at Bathurst Inlet (i.e. barge to be frozen-in at Bathurst Inlet);
- Establishment of temporary camps along winter road routes;
- Abandonment and restoration of road routes upon completion of transportation activities; and
- Construction and operation of an ice airstrip at D'Arcy Lake to support the use of a Hercules aircraft for up to sixty days.

The Proponent is currently applying for a new LUP with INAC which includes the following components and project activities that <u>have not been previously screened by the NIRB</u>:

- Establishment of a temporary camp at Bathurst Inlet;
- Establishment of an ice airstrip at Bathurst Inlet; and
- Storage of fuel at Bathurst Inlet including:
    - Drummed fuel (approximately 410,000 litres diesel, 61,500 litres gasoline, 410,000 litres aviation fuel, 7500 pounds of propane and 100 pounds of acetelyne) to be stored within secondary containment at the Bathurst Inlet lay down area
    - Bulk fuel (approximately 600,000 litres diesel) to be stored on barge prior to being transferred to tanks or sleighs for transport to Hackett River/Goose Lake camps via Cat-train (involves overwinter storage via barge freeze-in during the winter of 2011-2012).

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 periodically check the SARA registry (www.sararegistry.gc.ca) to get the current status of a species.

Updated: August 4, 2009

Species at Risk	**COSEWIC Designation**	**Schedule of SARA**	**Government Organization with Lead Management Responsibility** [1]
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	Government of Nunavut
Felt-leaf Willow	Special Concern	Schedule 1	Government of Nunavut
Peregrine Falcon (*anatum-tundrius* complex)	Special Concern	Schedule 1 (*anatum*) Schedule 3 (*tundrius)*	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
Peary Caribou	Endangered	Pending	Government of Nunavut
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Red Knot (*rufa* subspecies)	Endangered	Pending	EC

Beluga Whale (Cumberland Sound population)	Threatened	Pending	DFO
Atlantic Cod (Arctic population)	Special Concern	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
Porsild's Bryum	Threatened	Pending	Government of Nunavut
Atlantic Walrus	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO
Red Knot (*islandica* subspecies)	Special Concern	Pending	EC
Horned Grebe (Western population)	Special Concern	Pending	EC
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Pending	Government of Nunavut
Grizzly Bear	Special Concern	Pending	Government of Nunavut
Polar Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western Population)	Special Concern	Pending	Government of Nunavut

[1] 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. The Department of Fisheries and Oceans (DFO) has responsibility for management of aquatic species.

Appendix C
Archaeological and Palaeontological Resources Terms and Conditions
for Land Use Permit Holders

INTRODUCTION

The Department of Culture, Language, Elders and Youth (CLEY) routinely reviews land use applications sent to the Nunavut Water Board, Nunavut Impact Review Board and the Department of Indian 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. CLEY is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*[1] to issue such permits.

[1] 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 CLEY 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 CLEY.

6) The permittee/proponent shall follow the direction of CLEY 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 INAC's directions will also be followed.

7) The permittee/proponent shall provide all information requested by CLEY 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 CLEY 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 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

[2] s. 51(1)
[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: http://gov.nu.ca/cley/english/arch.html)

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

CLEY 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 CLEY 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 Department of Indian and Northern Affairs, for development activities proposed for federal Crown Lands.

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

Through his or her active participation and supervision of the study, the contract archaeologist or palaeontologist is accountable for the quality of work undertaken and the quality of the report produced. Facilities to conduct fieldwork, analysis, and report preparation should be available to this individual through institutional, agency, or company affiliations. Responsibility for the curation of objects recovered during field work while under study and for documents generated in the course of the study as well as remittance of artifacts, specimens and documents to the

repository specified on the permit accrue to the contract archaeologist or palaeontologist. This individual is also bound by the legal requirements of the *Nunavut Archaeological and Palaeontological Sites Regulations.*

Types of Development

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

- *Linear disturbances: including the construction of highways, roads, winter roads, transmission lines, and pipelines;*
- *Extractive disturbances: including mining, gravel removal, quarrying, and land filling;*
- *Impoundment disturbances: including dams, reservoirs, and tailings ponds;*
- *Intensive land use disturbances: including industrial, residential, commercial, recreational, and land reclamation work, and use of heritage resources as tourist developments.*
- *Mineral, oil and gas exploration: establishment of camps, temporary airstrips, access routes, well sites, or quarries all have potential for impacting heritage resources*.

Types of Studies Undertaken to Preserve Heritage Resources

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

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

The main goal of a reconnaissance study is to provide baseline data for the verification of the presence of potential heritage resources, the determination of impacts to these resources, the generation of terms of reference for further studies and, if required, the advancement of

preliminary mitigative and compensatory plans. The results of reconnaissance studies are primarily useful for the selection of alternatives and secondarily as a means of identifying impacts that must be mitigated after the final siting and design of the development project. Depending on the scope of the study, a Class 1 or Class 2 Permit is required for this type of investigation.

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

- allow the identification of research and conservation opportunities;
- enable the developer to make planning decisions and recognize their likely effects on the known or predicted resources; and
- make the developer aware of the expenditures, which may be required for subsequent studies and mitigation. A Class 1 or 2 permit is required

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

Mitigation: This refers to the amelioration of adverse impacts to heritage resources and involves the avoidance of impact through the redesign or relocation of a development or its components; the protection of the resource by constructing physical facilities; or, the scientific investigation and recovery of information from the resource by excavation or other method. The type(s) of appropriate mitigative measures are dictated by their viability in the context of the development project. Mitigation strategies must be developed in consultation with, and approved by, the Department of Culture, Language, Elders and Youth. 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.