

After a thorough assessment of all material provided to the Board (please see Appendix A), 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

The Board's decision was made based on specific considerations that reflect the primary objectives of the Land Claims Agreement and includes the following:

- The Proponent has committed to a number of strategies that, if followed, will reduce the potential for significant adverse impacts.
- The Nunavut Water Board license to be issued will address many issues related to water use and waste disposal. This Screening Decision will be forwarded to the NWB and they may incorporate some of NIRB's conditions in to the forthcoming license.
- The INAC Land Use Permit to be issued typically addresses many mitigation measures designed to reduce environmental impact.

Recommendations and Recommended Conditions

Following review of all the material provided to the Board regarding this project proposal, the Nunavut Impact Review Board is recommending the following:

1. Indian and Northern Affairs Canada (INAC) incorporate mitigation measures, conditions and monitoring requirements pursuant to the Federal Land Use Permit. These mitigation measures, conditions and monitoring requirements should be in regard to:
 - a) Location and Area
 - b) Time
 - c) Equipment
 - d) Methods and Techniques
 - e) Control or Prevention of Flooding, Erosion and Subsidence of Land
 - f) Use, Storage, Handling and Disposal of Chemical or Toxic Material
 - g) Wildlife and Fisheries Habitat
 - h) Objects and Places of Recreation, Scenic and Ecological Value
 - i) Petroleum Fuel Storage
 - j) Matters Not Consistent with the Regulations

In addition, the Board is recommending the following or similar project-specific terms and conditions be imposed upon the Proponent through all relevant legislation pursuant to 12.4.4(a) of the NLCA:

1. Defence Construction Canada (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 prior to the commencement of the project to the Nunavut Impact Review Board (NIRB).

3. The Proponent shall operate the project in accordance with commitments and mitigation measures stated in Appendix B and all correspondence and documents provided to the NIRB, Indian and Northern Affairs Canada (INAC) and the Nunavut Water Board (NWB). Where information in the documentation conflicts with Appendix B, Appendix B shall prevail.
4. Once the contract has been awarded for the Clean-up project, the Proponent (DCC) shall submit to NIRB, Environment Canada (EC), NWB and INAC the proposed location of the camp, fuel tanks, lagoon and associated discharge location for review.
5. The Proponent shall submit a comprehensive annual report with copies provided to the NIRB and INAC by January 31st of each year following the calendar year reported. Annual reports will be provided until the project has been completed. The report must contain, but not be limited to, the following information:
 - a) A summary of activities undertaken for the year, including but not limited to the amount contaminated soil removed from the site;
 - b) A work plan for the following year;
 - c) An update on the extent of contamination on-site and supporting documentation;
 - d) Description of any wildlife encounters and actions/mitigation taken, including the presence of animal dens in the area and consultation with Government of Nunavut (GN) regarding mitigation measures;
 - e) A summary of local hires and initiatives;
 - f) A summary of community consultations undertaken and the results (if any);
 - g) A summary of site-visits by Land Use inspectors with results and follow-up actions;
 - h) A summary of site-visits with community members (if conducted);
 - i) Site photos and updated site maps;
 - j) The number of barges utilized;
 - k) Issues related to monitoring including updates to the Plan;
 - l) A summary of how the Proponent has complied with NIRB conditions contained within the Screening Decision, and the conditions associated with all authorizations for the project proposal.
6. The Proponent shall discharge surface water and waste water in accordance with a license issued by the Nunavut Water Board.
7. The Proponent shall use water instead of calcium chloride as a dust suppressant on site.
8. The Proponent shall ensure compliance with Section 36 of the *Fisheries Act* which requires that no person shall deposit or permit the deposit of a deleterious substance on any type in water frequented by fish or in any place under any conditions where the deleterious substance may enter such a water body.
9. The Proponent shall confirm if the large lake (39,000 m²) located approximately 130 m down gradient of lobes A and B is fish-bearing prior to the start of the work season. Upon confirmation (presence or absence of fish), correspondence must be provided to NIRB and EC which includes the data collected from the 2007 sampling program, a description of all appropriate actions to prevent sedimentation of the lake during excavation of lobe B, and a description of a follow-up sampling program. The Proponent shall consult with DFO regarding mitigation measures to prevent sedimentation of the lake.

10. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation. Deliberate feeding of any wildlife is absolutely prohibited. The Proponent shall ensure that there is not hunting or fishing, unless proper Nunavut authorizations have been acquired.
11. The Proponent shall not conduct any activity around the bedrock outcrop at the west end of lobe B until the presence of animal dens (fox and wolverine) has been confirmed and GN has been consulted regarding mitigation measures to prevent disturbance of the animals during work in the vicinity.
12. Pursuant to the *Migratory Bird Convention Act* Regulations, the Proponent shall not disturb or destroy the nests or eggs of migratory birds. If nests containing eggs or young are encountered, the Proponent shall avoid these areas until nesting is complete and the young have left the nest.
13. The Proponent shall be aware of and ensure compliance with the Species at Risk Act (effective June 1, 2004). Attached in Appendix C is a list of Species at Risk that may be encountered in the area (see <http://www.sararegistry.gc.ca/> for more information).
14. In order to reduce disturbance to nesting birds, the Proponent shall ensure that any aircraft used in conducting project activities maintain a flight altitude of at least 610 metres during horizontal (point to point) flight during the nesting season.
15. In order to reduce disturbance to resting, feeding, or moulting birds, the Proponent shall ensure that any aircraft used in conducting project activities maintain a vertical distance of 1000 m and minimum horizontal distance of 1500 m from any observed concentrations (flocks / groups) of birds.
16. The Proponent shall ensure that disposal of combustible wastes comply with the *Canada-wide Standards for Dioxins and Furans* and the *Canada-wide Standard for Mercury*. Efforts made to achieve compliance shall be reported to the NIRB as part of the annual report.
17. The Proponent shall comply with the “Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils” (December 2005).
18. The Proponent shall incinerate all combustible wastes daily, and remove the ash from incineration activities and non-combustible wastes from the project site to an approved facility for disposal.
19. The proponent shall ensure that all hazardous material is managed, removed from site and disposed in accordance with the *Environmental Protection Act (EPA)*, the Nunavut Territorial Regulations and Guidelines, and the Nunavut Hazardous Waste Disposal Manual.
20. The Proponent shall ensure that the project contractor(s) and contract shippers involved in this project comply with *Transportation of Dangerous Goods Act* when handling, storing and transporting contaminated waste.
21. The Proponent shall use containers that comply with the *International Maritime Organization Dangerous Goods Code* and the *Transportation of Dangerous Goods Act*, and will be approved by Transport Canada prior to use. The proponent shall ensure that the containers on site are removed on an annual basis.
22. The Proponent shall ensure that any exposed soil piles are covered to prevent migration of wind blown contaminants.
23. The Proponent shall, for all contaminated waste handling operations, beginning at Byron Bay and ending at the licensed disposal facility, adhere to the requirements of the *Transportation of Dangerous Goods* legislation in Canada as well as the following requirements:
 - a) The *Arctic Waters Pollution Prevention Act*;
 - b) The Guidelines for the Operation of Tankers and Barges in Canadian Arctic Waters;

- c) The Arctic Ice Regime Shipping System Standards;
- d) The *International Maritime Organization Dangerous Goods Code*; and
- e) All other environmental and regulatory laws in Canada, including but not limited to: the *Fisheries Act*; *Canada Shipping Act*; *Safe Containers Convention Act*; *Nunavut Public Health Act*; *Nunavut Safety Act*; Nunavut Spill Contingency Planning and Reporting Regulation; and the *Canada Labour Act*.

24. The Proponent shall adhere to conditions stated in attached Appendix D *Archaeological and Palaeontological Resources – Terms and Conditions for Land Use Permit Holders*.

25. The Proponent shall confirm to Environment Canada's satisfaction that the clean-up objectives were met at the completion of remediation activities and prior to the expiry date of the permit. Depending on the results of confirmation sampling, the need for post closure monitoring will be re-evaluated.

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 ____March 29, 2007_____ at Cambridge Bay, NU.



Lucassie Arragutainaq, Acting Chairperson

Attachments: Appendix A – File History
 Appendix B – Proponent Commitments
 Appendix C – Nunavut Species at Risk
 Appendix D – Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders.

APPENDIX A – FILE HISTORY

On February 12, 2007 the Nunavut Impact Review Board (NIRB or Board) received Defence Construction Canada's PIN-4 Byron Bay Site Remediation (PIN-4) project proposal from Indian and Northern Affairs Canada (INAC). After a pre-screening review it was determined that NIRB had enough information to commence the Part 4 Screening.

The project is located 150 km west of Cambridge Bay.

Defence Construction Canada (DCC) is proposing to implement a remediation program at the PIN-4 (Byron Bay) former Distant Early Warning Line Site (DLCU). Clean-up activities are expected to commence on August 2007 and continue through 2010. The proposed major activities for the remediation program involve the following components:

- Demolish and remove existing facilities which are not required for the operation of the North Warning System
- Disposal of contaminated soils
- Stabilize existing landfills
- Air transportation to and from the site
- Marine transportation of bulk materials and equipment to and from site via sea-lift or barge
- Use of existing airstrip and roads at site
- Clean up surface debris
- Construction of a non-hazardous waste landfill
- Construction of a Tier II Soil Disposal Facility
- Construction of temporary clean up camp-site for up to 60 persons, and demobilization of camp-site at end of project life
- Establishment of sewage lagoon for camp-site
- Hazardous waste storage and disposal
- Fuel storage
- Quarrying activity
- Consumption of water and generation of wastes

This application was distributed on February 21, 2007 to Cambridge Bay Hamlet, Cambridge Bay HTO and to interested Federal and Territorial Agencies. NIRB requested that interested Parties review the application and provide NIRB with appropriate comments.

NIRB received comments related to the Part 4 screening from Environment Canada (EC) and Government of Nunavut Department of Culture Language Elders and Youth (GN-CLEY) on March 14, 2007 (Comments and Concerns)

On March 16, 2007, NIRB provided an opportunity for the Proponent to respond to the Parties' concerns. The Proponent provided a response to each Party's concerns on March 21, 2007.

Comments and Concerns from Parties

NIRB received comments related to the Part 4 screening from EC and GN-CLEY by March 14, 2007.

EC provided comments and recommendations related to the following:

- Fuel and chemical storage and deposition of deleterious substances
- Lack of information regarding remediation of roadways
- Discharge of untreated water into the environment and impacts to groundwater
- Potential impacts on wildlife and lack of information regarding locations of animal dens in area
- Proximity of landfarm to waterbodies and potential impacts of landfarm to waterbodies
- Impacts to potential fish bearing ponds and fish habitat
- Sedimentation of waterbodies during excavation of contaminated soil
- Potential for impacts to air quality related to incineration of combustible camp wastes
- Lack of background information
- Insufficient information contained within the Post Construction Monitoring and long term monitoring
- Clarification regarding the Disposal of Site Debris Section in the DLCU document

The GN-CLEY supports the project proposal on the condition that the proponent's activities avoid the known archaeological sites listed. Unknown sites are to be reported to GN-CLEY. GN-CLEY provided archaeological and palaeontological resources terms and conditions for land use permit holders.

GN-CLEY also requested that coordinates provided be shared with Callum Thomson, an archaeological consultant, who has submitted a permit to conduct survey at PIN-4.

APPENDIX B - PROPONENT COMMITMENTS

In correspondence submitted to NIRB in response to concerns and comments raised by Parties (dated March 21, 2007), DCC has committed to the following:

1. Use of water instead of calcium chloride as dust suppression on the site.
2. The list of regulatory project requirements in Section 2.4.2 of the “Defence Line Clean-up of PIN-4, Byron Bay DEW Line Site” (“Clean-up”) document will be updated to include Canada-wide Standards for Dioxins and Furans and the Canada-wide Standard for Mercury. The section will also include the “Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils” (December 2005).
3. Any contaminated soil areas occurring on the roads will be excavated and backfilled. At the completion of the program, culverts will be removed and side slopes will be flattened and graded. Remediation of roadways generally does not occur during a clean up program.
4. “Area 2” was the most suitable location for the landfarm selection as noted in Drawing H-B264/1-9101-111 in Section 5.4.7 of the “Clean-up” document and will be the final location of the landfarm.
5. Total petroleum hydrocarbons (TPH) and BTEX (benzene, toluene, ethylene, and xylene) will be included as additional constituents analyzed in the wastewater discharge from the landfarm area.
6. Groundwater encountered in areas with elevated copper concentrations (western edge of Tier II landfill) and during key trench construction for copper will be collected and analyzed for copper and other constituents.
7. The presence of fish will be confirmed at the start of the work season at PIN-4 at a large lake (39,000 m²) located approximately 130 m down gradient of lobes A and B.
8. Surface water samples from the large lake located downgradient of lobes A and B will be collected to determine whether the water quality has been impacted due to the presence and proximity of the South Landfill.
9. The presence of animal dens (fox and wolverine) within the bedrock outcrop at west end of lobe B will be confirmed at the start of the work season at PIN-4. If the den is active, DCC will consult with the Government of Nunavut (GN) regarding mitigation measures to prevent disturbance of the animal during work in the vicinity.
10. Once the contract has been awarded, the proposed location of the camp, fuel tanks, lagoon and associated discharge location will be provided by the contractor for review.
11. DCC will take under consideration the EC recommendation that the hazardous waste material processing area be located such that any runoff from the site cannot enter any waterbody frequented by fish.

In other correspondence, DCC has committed to a number of operational procedures, as outlined in DCC’s submissions to NIRB, namely:

1. Application to Indian and Northern Affairs Canada for a Land Use Permit.

2. Defence Construction Canada, Clean-up of PIN-4, Byron Bay Dew Line Site Document, including:
 - a) Section 5.0. Implementation and Design/Engineering
 - b) Section 7.0. Identification of Environmental Impacts
 - c) Section 8.0. Environmental Protection Plan
 - d) Section 9.0. Spill Contingency Plan
 - e) Section 10.0. Post-Construction Monitoring
 - f) Section 11.0. Abandonment and Decommissioning Plan

APPENDIX C - 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: October 17, 2006

Species at Risk	Category of Concern	Schedule of SARA	Government Organization with Primary Management Responsibility ¹
Peregrine Falcon (subspecies tundrius)	Special Concern	Schedule 3	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
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 is the competent Minister under SARA for terrestrial species and as such, has a national role in the conservation and recovery of these species in Canada. However, day to day management of terrestrial species except migratory birds is primarily under the responsibility of the Territorial Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency.

APPENDIX D - Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders



BACKGROUND: Archaeology

As stated in Article 33 of the Nunavut Land Claims Agreement:

The archaeological record of the Inuit of Nunavut is a record of Inuit use and occupancy of lands and resources through time. The evidence associated with their use and occupancy represents a cultural, historical and ethnographic heritage of Inuit society and, as such, Government recognizes that Inuit have a special relationship with such evidence, which shall be expressed in terms of special rights and responsibilities. [33.2.1]

The archaeological record of Nunavut is of spiritual, cultural, religious and educational importance to Inuit. Accordingly, the identification, protection and conservation of archaeological sites and specimens and the interpretation of the archaeological record is of primary importance to Inuit and their involvement is both desirable and necessary. [33.2.2]

In recognition of the cultural, spiritual and religious importance of certain areas in Nunavut to Inuit, Inuit have special rights and interests in these areas as defined by Article 33 of the Nunavut Land Claims Agreement. [33.2.5]

BACKGROUND: Palaeontology

Under the Nunavut Act¹, the federal Government can make regulations for the protection, care and preservation of palaeontological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*², it is illegal to alter or disturb any palaeontological site in Nunavut unless permission is first granted through the permitting process.

Definitions

¹ s. 51(1)

² P.C. 2001-1111 14 June, 2001

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:

- (a) natural casts
- (b) preserved tracks, coprolites and plant remains; and
- (c) the preserved shells and exoskeletons of invertebrates and the eggs, teeth and bones of vertebrates.

Terms and Conditions

- 1) The permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 2) The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 3) The permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2046 or (867) 975-5500 or 1 (866) 934-2035 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.
- 4) The permittee 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 the Department of Culture, Language, Elders and Youth, Government of Nunavut.
- 5) The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.
- 6) The permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
- 7) The permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and artifacts, and palaeontological sites and fossils.
- 8) The permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.

9) The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth:

- a. survey
- b. inventory and documentation of the archaeological or palaeontological resources of the land use area
- c. assessment of potential for damage to archaeological or palaeontological sites
- d. mitigation
- e. marking boundaries of archaeological or palaeontological sites
- f. site restoration

The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit, all procedures subsumed under the above operations.