



Environment
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NWB File: 1BR-STU----

Phyllis Beaulieu
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Via email: licensing@nunavutwaterboard.org

Attention: Ms. Beaulieu

RE: 121121 1BR-STU---- DIAND, New Application CAM-A Remediation, Kitikmeot Region

Environment Canada (EC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned new water license application. The following specialist advice has been provided pursuant to the *Canadian Environmental Protection Act 1999*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Aboriginal Affairs and Northern Development Canada (AANDC) is submitting a Type B water license application to the NWB to support remediation activities at the former DEW Line Site, CAM-A, Sturt Point. AANDC completed site investigations in 2010 and remediation activities are proposed to occur in July and August 2013. On-site activities include mobilization and demobilization of equipment, materials, wastes, and personnel; enhancement of access routes and site routes; camp set-up and operation, hazardous material removal, handling, and transportation; building and structure demolition; non-hazardous materials/debris consolidation and disposal; excavation and relocation or removal of contaminated soil; quarrying of gravel and overburden materials; landfill construction; and site and landfill remediation.

General

- Subsection 36(3) of the *Fisheries Act* specifies that, unless authorized by federal regulation, no person shall deposit or permit the deposit of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water. The definition of deleterious substance (Subsection 34(1) of the *Fisheries Act*) includes “any water that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water.” Subsection 36(3) makes no allowance for a mixing or dilution zone at the point of deposit.
- All mitigation measures identified by the proponent, and the additional measures suggested herein, should be strictly adhered to in conducting project activities. This will require awareness on the part of the proponent's representatives (including contractors) conducting operations in the field. EC recommends that all field operations staff be made aware of the

proponent's commitments to these mitigation measures and provided with appropriate advice / training on how to implement these measures.

Spill Contingency Plan

- Refuelling should not take place below the high water mark of any water body and shall be done in such a manner as to prevent any hydrocarbons from entering any water body frequented by fish. EC recommends that spill prevention measures, such as drip pans should be used when refuelling equipment.
- A spill kit, including shovels, barrels, absorbents, etc., should be readily available at all locations where fuel is being stored or transferred in order to provide immediate response in the event of a spill and should accommodate 110% of the capacity of the largest fuel storage container.
- Please note that according to the Aboriginal Affairs and Northern Development Canada's (AANDC) "Guidelines for Spill Contingency Planning" (April 2007), available at <http://www.aadnc-aandc.gc.ca/eng/1100100024236/1100100024253>, all releases of harmful substances, **regardless of quantity** are to be reported to the NWT / NU 24-hour Spill Line, (867) 920-8130 if the release is near or into a water body, is near or into a designated sensitive environment or sensitive wildlife habitat, poses imminent threat to human health or safety, poses imminent threat to a listed species at risk or its critical habitat, or is uncontrollable.

Landfarms

- The Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils (Science Applications International Corporation (SAIC), 2005) should be consulted as they contain landfarming specifics including minimum recommended distances from landfarms to surface waters (500 m).

Waste Disposal

- EC recommends the use of an approved incinerator for the disposal of combustible wastes. EC has developed a Technical Document for Batch Waste Incineration, and is available at the following web link:
<http://www.ec.gc.ca/gdd-mw/default.asp?lang=En&n=F53EDE13-1>
The technical document provides information on appropriate incineration technologies, best management and operational practices, monitoring and reporting. This information should be incorporated into an incineration management plan for the project.

Quarrying, Road Construction and Maintenance

- It is recommended that an undisturbed buffer zone of at least 30 metres be maintained between any quarrying that may occur and the normal high water mark of any water body.
- Abutment construction materials shall be clean and contaminant free; gravel/construction materials are not to be gathered from below the high water mark of any watercourse.
- Suitable erosion control measures shall be implemented. The proponent shall not deposit nor permit the deposit of sediment into any fish bearing waters. Stream bank disturbances must be minimized and all disturbed areas stabilized upon completion of the project.
- EC recommends the use of water for dust suppression given the deleterious nature of calcium chloride when used in large quantities.

Wildlife and Species at Risk

- Subsection 6(a) of the *Migratory Birds Regulations* states that no one shall disturb or destroy the nests or eggs of migratory birds. If active nests are encountered during project activities, the nesting area should be avoided until nesting is complete (i.e., the young have left the vicinity of the nest). The Proponent should consult the fact sheet "Planning Ahead to Reduce Risks to Migratory Bird Nests" available at: <http://www.ec.gc.ca/paom-itmb/>
- EC recommends that food, domestic wastes, and petroleum-based chemicals (e.g., greases, gasoline, glycol-based antifreeze) be made inaccessible to wildlife at all times. Such items can attract predators of migratory birds such as foxes, ravens, gulls, and bears. Although these animals may initially be attracted to the novel food sources, they often will also eat

eggs and young birds in the area. These predators can have significant negative effects on the local bird populations.

- Subsection 5.1 of the *Migratory Birds Convention Act* prohibits persons from depositing substances harmful to migratory birds in waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area.
- Subsection 79(2) of the *Species at Risk Act* (SARA), states that during an assessment of effects of a project, the adverse effects of the project on listed wildlife species and its critical habitat must be identified, that measures are taken to avoid or lessen those effects, and that the effects need to be monitored. This section applies to all species listed on Schedule 1 of SARA. However, as a matter of best practice, EC suggests that species on other Schedules of SARA and under consideration for listing on SARA, including those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), be considered during an environmental assessment in a similar manner. The Table below lists species that may be encountered in the project area that have been assessed by COSEWIC as well as their current listing on Schedules 1-3 of SARA (and designation if different from that of COSEWIC). Project impacts could include species disturbance, attraction to operations and destruction of habitat.

Terrestrial Species at Risk potentially within project area ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
Peregrine Falcon	Special Concern (<i>anatum-tundrius</i> complex ³)	Schedule 1	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 1	Government of Nunavut
Polar Bear	Special Concern	Schedule 1	Government of Nunavut
Wolverine (Western population)	Special Concern	Pending	Government of Nunavut

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

² 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. Thus, for species within their responsibility, the Territorial Government is best suited to provide detailed advice and information on potential adverse effects, mitigation measures, and monitoring.

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.

- For any Species at Risk that could be encountered or affected by the project, the proponent should note any potential adverse effects of the project to the species, its habitat, and/or its residence. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the Species at Risk registry at <http://www.sararegistry.gc.ca> for information on specific species.
- If Species at Risk are encountered or affected, the primary mitigation measure should be avoidance. The proponent should avoid contact with or disturbance to each species, its habitat and/or its residence.
- Monitoring should be undertaken by the proponent to determine the effectiveness of mitigation and/or identify where further mitigation is required. As a minimum, this monitoring should include recording the locations and dates of any observations of Species at Risk, behaviour or actions taken by the animals when project activities were encountered, and any actions taken by the proponent to avoid contact or disturbance to the species, its habitat, and/or its residence. This information should be submitted to the appropriate regulators and organizations with management responsibility for that species, as requested.

- For species primarily managed by the Territorial Government, the Territorial Government should be consulted to identify other appropriate mitigation and/or monitoring measures to minimize effects to these species from the project.
- Mitigation and monitoring measures must be taken in a way that is consistent with applicable recovery strategies and action/management plans.
- Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds and Species at Risk, but will not necessarily ensure that the proponent remains in compliance with the *Migratory Birds Convention Act*, *Migratory Birds Regulations*, and the *Species at Risk Act*. The proponent must ensure they remain in compliance during all phases and in all undertakings related to the project.

If there are any changes to the project EC should be notified, as further review may be necessary. Please do not hesitate to contact the undersigned with any questions or comments at (867) 975-4631 or Paula.C.Smith@ec.gc.ca.

Regards,



Paula C. Smith
A/Senior Environmental Assessment Coordinator

cc: Carey Ogilvie, Head, Environmental Assessment North, EA and Marine Programs Division, EC