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12 October 2010

EC file: 4703 001 123
NWB file: 2BE-GIN----

Phyllis Beaulieu
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Nunavut Water Board
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Via email: licensing@nunavutwaterboard.org

RE: 100913 2BE-GIN---- New Application Stantec Consulting Ltd – Geotechnical Investigation

Environment Canada (EC) has reviewed the information submitted with the above-mentioned project proposal to the Nunavut Water Board (NWB). The following specialist advice has been provided pursuant to the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Stantec Consulting Ltd. (Stantec), on behalf of Defence Construction Canada, is applying for a Type “B” water license from the NWB for a proposed geotechnical drilling program at the existing mine port facility at Nanisivik in support of the proposed Nanisivik Naval Facility Project. Water will be obtained from Strathcona Sound with an estimate use of 0.75m³/day.

The purpose of this program is to provide information to designers and project managers to assess the stability of the wharf, design and construction of foundations for new infrastructure, and/or repairs/rehabilitation of the existing infrastructure components (e.g. existing tank farms, heliport, base structures and mechanical facilities). A test pitting program would also be completed at potential borrow areas near the port facility. The proposed project would take place over 14 days, between 23 August and 30 November 2010. Marine based, on-ice geotechnical drilling may also be required in the area of the existing wharf in 2011 if required. Stantec personnel will be based out of Arctic Bay with daily transport by truck to Nanisivik.

Upon review of the supporting documents for this project proposal, EC provides the following comments and recommendations for the NWB’s consideration:

General

- The proponent shall not deposit, nor permit the deposit of chemicals, sediment, wastes, or fuels associated with the project into any water body or where it is likely to flow into water. According to the *Fisheries Act*, Section 36 (3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.
- The proponent shall not erect camps or store materials on the surface ice of lakes or streams, except which is for immediate use.

- No disturbance of the stream bed or banks of any definable watercourse should be permitted.

Spill Contingency Plan

- A section should be included in the Plan that provides direction regarding response action for spills on various types of terrain (e.g. spills on land, water, snow/ice, muskeg, etc.)
- EC recommends that drip pans be used when refueling equipment on site in order to help prevent spills from occurring.
- Refuelling shall 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.
- 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.
- EC recommends the use of secondary containment, such as self-supporting insta-berms, for storage of all barrelled fuel rather than relying on natural depressions to contain spills.
- The Plan should include the following statement, “**all spills** of oil, fuel, or other deleterious materials, **regardless of size**, are to be reported to the NWT-NU 24hr Spill Line (867) 920-8130.
- EC recommends that a 24 Hour NWT/NU Spill Response Form be attached to the Plan.

Wildlife and Species at Risk

- Section 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).
- EC recommends that food, domestic wastes, and petroleum-based chemicals (e.g., greases, gasoline, and 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.
- Section 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.
- The following comments are pursuant to the *Species at Risk Act* (SARA), which came into full effect on June 1, 2004. Section 79 (2) of 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, Environment Canada 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.

Terrestrial Species at Risk	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility
Peregrine Falcon (<i>anatum-tundrius</i> complex)	Special Concern	Schedule 1 (<i>anatum</i>) Schedule 3 (<i>tundrius</i>)	Government of Nunavut
Polar Bear	Special Concern	Pending	Government of Nunavut

Wolverine (Western population)	Special Concern	Pending	Government of Nunavut
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Impacts could be disturbance.

Environment Canada recommends:

- Species at Risk that could be encountered or affected by the project should be identified and any potential adverse effects of the project to the species, its habitat, and/or its residence noted. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the Species at Risk registry at 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.
- 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 proponents' representatives (including contractors) conducting operations in the field. Environment Canada recommends that all field operations staff be made aware of the proponents' commitments to these mitigation measures and provided with appropriate advice / training on how to implement these measures.
- 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 modifications to the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 975-4631 or by email at Paula.C.Smith@ec.gc.ca.

Yours truly,



Paula C. Smith
Environmental Assessment Coordinator

cc: Carey Ogilvie (Head, Environmental Assessment-North, EPO, Yellowknife, NT)
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