



**Environment Environnement
Canada Canada**

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EC file: 4517 000 026
NWB file: 1BR-FOX0713

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Via email: licensing@nunavutwaterboard.org

**RE: 1BR-FOX0713 – FOX-4, Cape Hooper DEW Line Site - Type B Water License
Amendment**

Environment Canada (EC) has reviewed the information regarding the above-mentioned project proposal, as submitted to the Nunavut Water Board (NWB). The following specialist advice has been provided pursuant to the *Canadian Environmental Protection Act 1999*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Defense Construction Canada (DCC), on behalf of DND is applying to the NWB for an amended Type B water license at the FOX-4, Cape Hooper DEW Line Site. FOX-4 is located on Baffin Island approximately 150 km north and south of the communities of Clyde River and Qikiqtarjuaq, respectively. This amendment will increase water use from 2 m³/day to 18 m³/day to accommodate the larger workforce that will be stationed at the camp for clean up efforts. Fox-4 was the first Department of National Defence (DND) site to undergo remediation in Nunavut. Clean-up efforts occurred between 1996-1999, prior to the establishment of the DND-Nunavut Tunngavik Inc. Cooperation Agreement. During a 2010 maintenance assessment of the FOX-4 site, it was identified that portions of the site were not in compliance with the DND-NTI Cooperation Agreement. As a result, remediation will be undertaken at the site over the next 3 years to bring Fox-4 into compliance with the Agreement.

Project activities include air transport of personnel to and from the site and weekly domestic supplies using charter flight; barge transport of contractor's equipment and facilities to the site and off-site once the proposed project is complete; use of existing site infrastructure including beach landing area, airstrip and roads; upgrading existing roads as required; establishment of camp with equipment storage during winter months; clean-up and appropriate disposal of contaminated soils; establishment of a landfarm; construction of a new non-hazardous waste landfill and new Tier II soil disposal facility cell; remediation of existing landfills as required; restoring disturbed areas to a stable profile; and sewage treatment and disposal in accordance with the Land Use Permit and Water Use License. These remediation activities require a temporary camp for approximately 60 people to be active during the two clean up seasons beginning August 2011 and ending in September 2013.

Based on the information provided, EC provides the following comments for the NWB's consideration:

Camp

- The proponent shall not deposit, nor permit the deposit of chemicals, sediment, wastes, or fuels associated with the project into any water body. 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.
- In the application, the proponent states that combustible waste will be incinerated. EC requests that the proponent develop and implement an incineration management plan consistent with the advice provided in the Technical Document for Batch Waste Incineration. The Technical Document provides information on appropriate incineration equipment, best management practices, monitoring and reporting. The Technical Document is available <http://www.ec.gc.ca/gdd-mw/default.asp?lang=En&n=F53EDE13-1>.

Spill Contingency Plan

- Please note that any spill of fuel or hazardous / deleterious materials, adjacent to or into a water body, **regardless of quantity** must be reported immediately to the NWT / NU 24-hour Spill Line, (867) 920-8130. In the event of a spill, EC will be contacted through the Spill Line. The telephone number listed for EC, in Table 1 of the Spill Contingency Plan, should be updated as follows: Environment Canada - Enforcement Officer (Iqaluit) TEL: (867) 975-4644.
- Refueling 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.
- Drip pans, or other similar preventative measures, should be used when refueling equipment on site.
- EC recommends the use of secondary containment, such as self-supporting insta-berms, for storage of all barreled fuel rather than relying on natural depressions to contain spills.
- The spill plan should identify what specific and potential risks are involved in the different stages of clean-up and provide specific guidance for response.
- Used absorbent materials, oil or greasy rags, and equipment servicing wastes (such as used engine oil, antifreeze, hydraulic oil, lead acid batteries, brake fluid and other lubricants) should be safely stored and transported in sealed containers (odour-free to prevent animal attraction) and safely transported to a facility that is authorized for the treatment and disposal of industrial hazardous wastes.

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. The proposed remediation activities include excavation and regarding of landfills during the nesting season.
- The best mitigation measure to ensure compliance is to conduct activities with a risk of disturbing or destroying nests or eggs outside of the migratory bird nesting season.
- If project activities are conducted during the nesting season, areas should be checked for nests before work begins and all crew members should be trained on how to recognize signs that a bird might be nesting in the area. If an active nest is found, the area should be avoided until nesting is completed (i.e. the young have left the vicinity of the nest).

- In the northern Arctic region of the Northwest Territories and Nunavut, migratory birds may be found incubating eggs from May 31 until August 4, and young birds can be present in the nest until August 28.
- 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.
- 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. 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, and attraction to operations.

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

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

² Environment Canada 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* subspecies of Peregrine Falcon is listed on Schedule 1 of SARA as threatened. The *anatum* and *tundrius* subspecies of Peregrine Falcon were reassessed by COSEWIC in 2007 and combined into one subpopulation complex. This subpopulation complex was listed by COSEWIC as Special Concern.

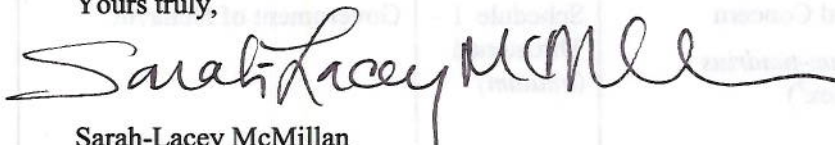
- For any Species at Risk that could be encountered or affected by the project, the proponent should note any potential adverse effects of the project to the species, its

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 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 additional changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact the undersigned with any questions or comments with regards to the foregoing at (867) 669-4724 or by email at Sarah-Lacey.McMillan@ec.gc.ca

Yours truly,



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