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Environmental Protection Operations Directorate  
Prairie and Northern Region (PNR)  
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July 2, 2013

EC file: 4703 004 033  
NIRB file: 13QN015

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Nunavut Impact Review Board  
P.O. Box 1360  
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Via e-mail: [info@nirb.ca](mailto:info@nirb.ca)

Attention: Ms. Gillard

**RE: NIRB 13QN015: Notice of Part 4 Screening for Qillaq Innovations'  
"Cambridge Bay Quarries for Infrastructure" project proposal**

Environment Canada (EC) has reviewed the information submitted to the Nunavut Impact Review Board (NIRB) regarding the above-mentioned project proposal and is submitting comments on mitigation measures as well as other matters of importance to the project proposal as requested by the NIRB. EC's specialist advice is 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*.

5140 Nunavut Ltd. O/A Qillaq Innovations (the proponent) is proposing to develop four quarry pits in the rural Cambridge Bay area to access borrow material for the airport expansion project and development of a new tank farm. Quarry operations are expected to commence June 2013 and continue for approximately two years in conjunction with the projects; the airport expansion project is expected to be completed by October 2014, and the tank farm project is expected to be completed in August 2015. The proposed project activities will include extraction of aggregates from multiple borrow sites via heavy equipment then transportation of aggregate to the two specified project sites located within the Hamlet of Cambridge Bay.

Based on a review of the license application and supporting materials, EC provides the following comments for the NIRB's consideration:

**General**

1. 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 a 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.

2. To ensure that quarrying activities do not impact water quality of surface waters the following should be adhered to:
  - An undisturbed buffer zone of at least 100 metres be maintained between any quarrying that may occur and the normal high water mark of any water body.
  - No disturbance of the stream bed or banks of any definable watercourse is permitted; clearing adjacent to streams/lakes should be done without disturbing the organic layer.
  - Excavation and /or removal of granular material should only take place above the summer or high water table.
3. EC recommends that the Proponent consult the Aboriginal Affairs and Northern Development Canada (previously Indian Affairs and Northern Development Canada) publication "Northern Land Use Guidelines: Pits and Quarries" ([http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-NWT/STAGING/texte-text/ntr\\_pubs\\_nlug7\\_1330552909157\\_eng.pdf](http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-NWT/STAGING/texte-text/ntr_pubs_nlug7_1330552909157_eng.pdf)) to ensure that mitigation measures proposed for the project are consistent with the Land Use Guidelines.

### Spill Contingency Planning

4. EC recommends that a Spill Contingency Plan be in place for any fuel storage or transfer location, outlining a clear path of response in the event of a spill and address the key areas of prevention, preparedness, response and recovery.
5. 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.

### Wildlife and Species at Risk

6. Paragraph 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/>



7. The following comments are pursuant to the *Species at Risk Act* (SARA). Subsection 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, 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.

Terrestrial Species at Risk potentially within project area <sup>1</sup>	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility <sup>2</sup>
Buff-breasted Sandpiper	Special Concern	Pending	EC
Peregrine Falcon	Special Concern ( <i>anatum-tundrius</i> complex <sup>3</sup> )	Schedule 1	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 1	Government of Nunavut
Red Knot ( <i>rufa</i> subspecies)	Endangered	Schedule 1	EC
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Schedule 1	Government of Nunavut
Grizzly Bear	Special Concern	Pending	Government of Nunavut
Polar Bear	Special Concern	Schedule 1	Government of Nunavut
Wolverine (Western population)	Special Concern	Pending	Government of Nunavut

<sup>1</sup> The Department of Fisheries and Oceans has responsibility for aquatic species.

<sup>2</sup> 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.

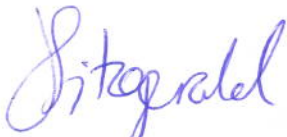
- For any Species at Risk that could be encountered or affected by the project, the proponent should note any potential adverse effects of the project to the species, its habitat, and/or its residence. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the Species at Risk registry at [www.sararegistry.gc.ca](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 species at risk recovery strategies and action/management plans.
8. 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. EC 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.
9. 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.

Should you require further information, please do not hesitate to contact me at 867-669-4746 or [jane.fitzgerald@ec.gc.ca](mailto:jane.fitzgerald@ec.gc.ca).

Sincerely,



Jane Fitzgerald  
Environmental Assessment Coordinator

cc: Yongshu Fan, Senior EA Coordinator, Environmental Assessment and Marine Programs(EAMP)-PNR, EC  
Lindsay Howes, EA Officer, EAMP-PNR, EC