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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: Licence 1BR-IIA---

June 9, 2015

John Wood
Chief Executive Officer
Arctic Infrastructure Limited Partnership
Suite 5600, 100 King Street W
Toronto, Ontario
M5X 1C9

E-mail: john.wood@aip-iaip.com

Subject: Water Licence Application for Iqaluit International Airport Improvement Project (IIAIP)

Dear Mr. Wood:

The Nunavut Water Board (NWB or Board) has completed its technical review of the water licence application submitted to the NWB by AILP on April 21, 2015. Although generally found to be in good working order, the Application, contains deficiencies that the NWB and interested parties believe require addressing before the application can proceed. AANDC Water Resources submitted its comments regarding the application to the NWB on June 8, 2015, which specifically requested that its concerns be addressed “before the issuance of a licence”; a viewpoint that for many of the conditions, the NWB supports. It should be noted that number of these concerns were addressed to the NWB, and hence the NWB only expects a response to comments 2, 3, 4, 5, 6, and 7. AANDC’s recommendations have been attached for your convenience, and it is relevant to note that many of AANDC’s concerns mirrored the concerns of the NWB, but for simplicity, the NWB has removed the overlapping considerations from its own comments. The NWB’s remaining considerations are provided below:

1. As noted in Block 13 and 15 of the Application, and suggested in the document entitled Memo of Intent City of Iqaluit, water supply and waste

management for the worker's camp is planned to be facilitated by municipal services, pursuant to a tentative agreement between the AILP and the City of Iqaluit. To pursue this strategy AILP must submit a copy of the agreement between itself and the City of Iqaluit to the Board for review. If this document is not readily available the NWB will include it as a condition in the licence, but it should be stressed that its submission is required before water use or waste disposal activities commence at the camp.

2. Section 3.2.6. of the Water Management Plan indicates that contaminated soils will be placed on an impermeable membrane, and associated contact water will be collected and tested; but it is unclear whether this is referring to contaminated soils already identified by the Proponent, or for future contaminated soils encountered. It is not clear from the plans submitted whether future soil sampling will occur, what the triggers will be for such sampling, and what applicable sampling procedures will be followed.
3. It is unclear from the Remediation Work Plan Iqaluit Airport and the Water Management Plan whether water that accumulates on top of the Soil Containment Cell's geomembrane cover and any associated runoff will be considered as potentially contaminated; or rather, it will be held in the holding basins and tested prior to discharge.
4. The SGMP indicates that roughly 10,000 m³ of material will be needed as fill for construction activities; it is unclear where the Proponent will source this material. If borrow pits are planned, the locations and details (number of borrow pits, locations, distance from water bodies, borrow materials ARD/ML potential etc.) should be provided as well. If this plan is not readily available, the NWB is agreeable to including it as a condition in the licence.
5. Although the Proponent has developed mitigation measures in the Erosion and Sediment Control Plan, and the Environmental Impacts Plan, to minimize waste to water during construction activities, it is unclear how the Proponent will assess, especially during in-water work, that the mitigation measures are effective, and detrimental sediment loading is not occurring in downstream waters. It does not appear that the Proponent plans to conduct any surface water monitoring over the course of construction activities, which traditionally constitutes one of the primary confirmatory environmental assessment tools for projects that involve in-water work. Especially for in-water work, water samples for Total Suspended Solids (TSS)—and other identified chemical parameters of concern—are normally taken at regular intervals downstream of the construction work, in addition to *in-situ* electronic readings, and should monitoring indicate that environmental limits are being compromised the in-water work is suspended. In addition, the project would benefit from a

site-wide surface water sampling program. Concerns have been raised during the application about contaminated waters and soils encountered during construction activities, and although the Proponent has included mitigation measures for such encounters, the NWB continues to hold reservations, due to the extent of construction activities and the industrial history of the site, that downstream water resources will not be negatively affected. The NWB believes the Proponent would significantly strengthen its monitoring program by including surface water quality monitoring at the final discharge points from the site, downstream from construction activities, specifically at points downstream of WC-A and DT-A at the southeast corner of the site, and at the discharge point of the Inner Drainage Ditch to the west side of the site, when discharge from this area occurs. Moreover, the NWB understands that surface water entering the site originates primarily from the north, which may be influenced by industrial activity. As such, it is recommended that any surface water monitoring program include water quality results from inflow locations for comparative analysis.

6. The Water Management Plan indicates that stored soils will be located in an area of 30 metres from any water body. In line with AANDC Northern Land Use Guidelines, stored materials, buildings and stockpiles of materials should be located at least 31 metres from the high water mark of any water body.

In addition, the NWB requested additional information about the Inner Field water source identified for dust suppression and spraying of aggregate, from the AILP on June 2, 2015. AANDC, in its comments, provided a number of questions regarding this water source as well. The Licensee is requested to address these inquiries, and provide a quantifiable description of the water source's vicinity to any nearby waste storage facilities.

These inquiries should be addressed appropriately in their corresponding plans. The NWB understands that the issuance of a water licence is imminent for the commencement of many activities on-site this construction season. If the Licensee believes that certain inquiries will require a significant amount of time to respond to, and will not be relevant until a later date in the construction season, the NWB is open to **considering** requests to include some of the updates as conditions for addendums or revisions in the licence, if appropriate justification can be provided.

If you have any questions related to this correspondence, please contact the technical advisor assigned to the file at (867) 360-6338 or by email to brady.maccarl@nwb-oen.ca

Regards,

Brady MacCarl
Technical Advisor