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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYIT  
OFFICE DES EAUX DU NUNAVUT

File No.: 3AM-GRA1015

November 27, 2012

Arlen Foster, EIT  
Stantec Architecture Ltd.  
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Dept. of Community & Government Services  
Government of Nunavut  
P.O. Bag #2  
Rankin Inlet, NU X0C 0G0

**Subject: Licence No. 3AM-GRA1015, Government of Nunavut Community and Government Services, Hamlet of Rankin Inlet, Nunavut: Submission of an Amendment Application**

Dear Mr. Foster,

The Nunavut Water Board (“NWB” or “Board”) received from Stantec Architecture Ltd. (“Stantec”) on behalf of the Government of Nunavut – Community and Government Services (“GN-CGS”) the “Water Supply Capacity Consumption & Conservation Study Rankin Inlet, NU”<sup>1</sup> as additional information in support of the Water Licence Amendment Application (“Application”) dated August 14, 2012.

The “Water Supply Capacity Consumption & Conservation Study” and the included “Nipissar Lake Volume Study and Environmental Variable Study” prepared by FSC on April 20, 2010 were submitted by e-mail to the NWB on November 6, 2012 as per request by the NWB of additional information. These studies are aimed at satisfying the requirements under Part C, Item 8 (a, b, c) of Licence 3AM-GRA1015. The information contained in the study indicates that if the water-efficiency strategy were to be implemented, it will provide the Hamlet of Rankin Inlet with over 200,000 m<sup>3</sup> per year additional water supply capacity. However, the NWB is of the understanding that those recommendations are still to be implemented by the GN-CGS/Hamlet of Rankin Inlet. Is there any schedule to address those recommendations? This requires

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<sup>1</sup> “Water Supply Capacity Consumption & Conservation Study, Rankin Inlet, NU” completed by Resource Management Strategies Inc. (RMSi) and FSC Architects & Engineers (SC) and dated April 20, 2010.

clarification.

Based on the revised water demand in 2011 (604,519 m<sup>3</sup>)<sup>2</sup> and Nipissar Lake natural replenishment rate of 311,789 m<sup>3</sup>, the Hamlet of Rankin Inlet largely exceeds the maximum supply rate of Nipissar Lake. Based on the revised water demand and replenishment rate, the proposed pipeline intending to augment the natural replenishment of Nipissar Lake does not appear to eliminate the need for the implementation of water efficiency strategy by the Hamlet of Rankin Inlet, as the reduction of the fresh water usage is an integral part of any comprehensive resource management approach.

From the information provided, the NWB is of the understanding that the additional water required would be taken from the river flowing from the Lower Landing Lake. Consequently, clarification is required with respect to the following:

- No flow data or water balance is provided with respect to the river. Does the water balance for the river support the amount of water that would be taken?
- Does the river flow directly into Hudson Bay or does it discharge into a lake? If there is a lake taking source from the river, how is the impact on the lake assessed? A map of appropriate scale might be very helpful to clarify those questions.

In addition to the above, the NWB believes that other agencies, including Fisheries and Oceans Canada (DFO), may have concerns and/or questions that pertain to the potential impacts that the scope of this potential amendment could have on the river and downstream water resources. It is expected that all concerns and questions raised during the review stage of the application would have to be addressed. The NWB looks forward to your response and clarification of the above issues prior to further processing of the Application as this information will aide in the process in advance of a full technical review.

Should you have any questions, please feel free to contact the undersigned at (867) 360-6338 Ext. 30 or [k.kharatyan@nunavutwaterboard.org](mailto:k.kharatyan@nunavutwaterboard.org), at your earliest convenience.

Yours truly,

*Original signed by:*

Karén Kharatyan  
Technical Advisor

CC    Brian Duguay, GN-CGS, Acting Regional Projects Manager  
      Bryan Purdy, GN-CGS, Regional Municipal Planning Engineer  
      Walter Orr, Stantec  
      Kevin Hodgins, Stantec

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<sup>2</sup> Cover letter, Stantec Architecture Ltd dated November 6, 2012