



Water Resources Division  
Nunavut Regional Office  
Iqaluit, NU X0A 0H0

*Your files - Vos références*  
2AM-DOH1323 & 2BE-HOP1222

January 20, 2017

*Our file - Notre référence*  
CIDM#1126401

Ida Porter  
Licensing Administrator  
Nunavut Water Board  
Gjoa Haven, NU X0B 1J0

**Re: Indigenous and Northern Affairs Canada's (INAC) Review of TMAC  
Resources Inc.'s Notification of Modification for the Windy Lake Water  
Intake Line for Water Licences #2AM-DOH1323 and 2BE-HOP1222 – Doris  
North and Hope Bay Projects**

Dear Ms. Porter,

This letter is the follow-up referred to in our January 13, 2017 letter on the above mentioned notification.

At the time, INAC was unable to find some relevant information for our review. This information has since been provided by TMAC, and we are now able to complete our review, which is provided in the enclosed memorandum for the Board's consideration. Comments have been provided pursuant to the Department's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

Please do not hesitate to contact me at 867-975-3876 or [sarah.forte@aandc-aadnc.gc.ca](mailto:sarah.forte@aandc-aadnc.gc.ca) for any additional information.

Regards,

Sarah Forté  
Water Management Coordinator

## **Technical Review Memorandum**

To: Ida Porter, Licensing Administrator, NWB

CC: John Roberts, Vice-President Environmental Affairs, TMAC Resources Inc.

From: Sarah Forté, Water Management Coordinator, INAC

Date: January 20, 2017

Re: Notification of Modification for the Windy Lake Water Intake Line for Water  
Licences #2AM-DOH1323 and 2BE-HOP1222

Licensee: TMAC Resources Inc.

Project: Doris North and Hope Bay Projects

Region: Kitikmeot

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### **A. BACKGROUND**

On December 14, 2016 the Nunavut Water Board provided notification to interested parties that TMAC Resources Inc. (TMAC) had submitted a Notification of Modification for the Windy Lake water intake line for water licences #2AM-DOH1323 and #2BE-HOP1222.

Currently TMAC has two water intake lines in Windy Lake to the west of a pump house at the camp on the eastern shore of the lake. They intend to replace one of the lines with a longer one of the same design to reach deeper water, less influenced by natural spring runoff. The new line would be a 4" insulated HDPE pipe equipped with heat trace approximately 50 m long and anchored by stainless steel anchor cables to a series of concrete blocks.

On January 18, 2016 TMAC provided more information, including a bathymetric map of Windy Lake, photos of the pump house and its location, as well as the approximate depth of the intake, which will be 6 m.

## B. RESULTS OF REVIEW

Indigenous and Northern Affairs Canada (INAC) Water Resources Division has no concerns with the proposed modification and offers the following comment:

### 1. Depth of water intake

#### Reference:

- Email from John Roberts dated January 18, 2017 entitled RE: Modification of Windy Lake water intake line
- DFO Protocol for Winter Water Withdrawal from Ice-covered Waterbodies in Northwest Territories and Nunavut

#### Comment:

Regarding winter water withdrawal, the DFO protocol states *“To further mitigate the impacts of water withdrawal, water is to be removed from deep areas of waterbodies (>2m below the ice surface) wherever feasible, to avoid the removal of oxygenated surface waters that are critical to over-wintering fish. The littoral zone should be avoided as a water withdrawal location.”*

The proposed new line would be approximately 50 m from shore at a depth of approximately 6 m. This represents an improvement over the current intake location with respect to extracting water from deeper parts of the lake during the winter, and will hopefully address the turbidity problems encountered during the spring.