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Our file Notre référence
NU-09-0043

January 12, 2010

Richard Dwyer
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, Nunavut
X0B 1J0

via e-mail: licensingadmin@nunavutboard.org

Dear R. Dwyer:

Subject: Proposed works or undertakings will not likely result in negative effects to fish habitat if additional protection measures are implemented.

Fisheries and Oceans Canada (DFO), Habitat Management, would like to thank the Nunavut Water Board for the opportunity to provide input concerning the project proposal concerning the Type "A" water licence application for the Hamlet of Arviat, submitted Nuna Burnside Engineering and Environmental Ltd., located at 61° 6'30"N latitude and 94° 3'31" W longitude.

To expedite future correspondence or inquiries, please refer to your referral title and file numbers when you contact us.

Habitat File No.: NU-09-0043
Referral Title: Water Intake, Wolf River, Hamlet of Arviat, Nunavut

DFO is the federal department responsible for developing and implementing policies and programs in support of Canada's scientific, ecological, social and economic interests in oceans and freshwater.

Our review consisted of:

- "Water Licence Complete Submission, Main Body," prepared by Nuna Burnside Engineering and Environmental Ltd., dated December 23, 2008, received by DFO December 21, 2009.
- "Figure 3, Hamlet of Arviat, Nunavut, Water Licence Submission, Major Drainage Basins" prepared by Nuna Burnside Engineering and Environmental Ltd., received by DFO December 21, 2009.

It is our understanding that the proposal consists of the following key elements:

- Utilization of an existing water intake pumphouse, which draws water from Wolf Lake.
- Withdrawal approximately 91, 000 cubic metres of water per year during the summer months from Wolf Lake.

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- *The existing intake line extends into Wolf Lake and is approximately 4 metres deep.*

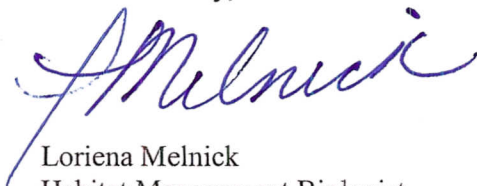
Following our review of the above provided information, to reduce potential impacts to fish and fish habitat, we are recommending the following mitigation measures related to our regulatory mandate under the federal *Fisheries Act* and in context of our national Policy for the Management of Fish Habitat be included into the plans:

1. Extraction of water via intake from any water body is prohibited under Section 30 of the Fisheries Act unless the entrance of the intake is properly screened to prevent the entrainment of fish. Refer to the Freshwater Intake End-of-Pipe Fish Screen Guideline (DFO 1995), which is available at www.dfo-mpo.gc.ca/library/223669.pdf. No harm should come to fish during water removal as long as the following mitigation measures are implemented:
 - Ensure that the holes in the screen are small enough that no fish of any size can pass through the screen and into the intake.
 - The rate of water withdrawal should be such that fish do not become impinged on the screen.
 - The fish guard or screen should be properly maintained, in a good state of repair, and is not removable except for renewal or repair.
 - During the time in which a renewal or repair is being conducted, the entrance of the water intake should be closed in order to prevent the passage of fish into the intake.
2. If the operations requires water in sufficient volume that the source water body may be drawn down, details should be submitted (volume required, size of water body, percent of total volume of water in source lake to be used, fish species etc.) to DFO for review. DFO strongly discourages the use of streams as a water source.

By implementing these additional measures and those already outlined in the plans, it is our opinion that the proposed works and undertakings will not likely result in impacts to fish and fish habitat.

I trust the information provided will be of assistance in the Nunavut Water Board's review for the Type "A" water licence application for the Hamlet of Arviat. If you or the proponent have any questions concerning the above, or if my understanding of the proposal is either incorrect, incomplete, or if there are changes to the proposed work, please contact me directly by telephone at (204) 983-2632, by fax (204) 983-7983, or by e-mail at Loriena.Melnick@dfo-mpo.gc.ca.

Yours sincerely,



Loriena Melnick
Habitat Management Biologist
Fisheries and Oceans Canada – Eastern Arctic Area

Copy: Eric Kan – Fisheries and Oceans Canada