



Fisheries and Oceans  
Canada

Pêches et Océans  
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February 21, 2006

Ms. Phyllis Beaulieu  
Manager of Licensing  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0

*Your file*      *Votre référence*  
NWB # NWB3IQA0103

*Our file*      *Notre référence*  
NU-04-0040

*Via electronic mail to:*  
[licensing@nwb.nunavut.ca](mailto:licensing@nwb.nunavut.ca)

Dear Ms. Beaulieu:

**Subject:** DFO Intervention Comments - City of Iqaluit's Type "A" Water Licence.

Fisheries and Oceans Canada (DFO) would like to thank the Nunavut Water Board (NWB) for providing an opportunity to participate in the Public Hearings for the City of Iqaluit's (City) Type "A" Water Licence, on March 7 and 8, 2006.

In preparation for the Public Hearings, DFO offers the following comments with respect to the water license application and the supporting documents as it relates to our mandate.

## **1. INTRODUCTION:**

The Constitution Act (1982) provides the federal government with exclusive authority for seacoastal and inland fisheries within Canada's territorial boundaries. Fisheries and Oceans Canada exercises this authority under the *Fisheries Act*. Specifically, DFO is responsible for the management and protection of fish and marine mammals and their habitats. There are two fundamental provisions in the *Fisheries Act* that pertain to the conservation and protection of fish habitat. One is section 35 of the Act that prohibits the harmful alteration, disruption or destruction of fish habitat without an authorization from the Minister of Fisheries and Oceans or through a regulation under the *Fisheries Act*. The other is section 36 that prohibits the deposit of deleterious substance into fish bearing waters unless authorized by a regulation under the Act or by another law of Parliament.

Environment Canada, on behalf of the Minister of Fisheries and Oceans, administers section 36 of the *Fisheries Act*. DFO relies upon advice provided by Environment Canada regarding issues pertaining to water quality.

There are other sections of the *Fisheries Act* that pertain to the conservation and protection of fish and fish habitat and these include sections 20 (fishways), 30 (fish guards) and 32 (destruction of fish) among others.

DFO's Policy for the Management of Fish Habitat (the Habitat Policy), introduced in 1986, provides general guidance on the application of the habitat protection provisions of the *Fisheries Act* and applies to all projects that have the potential to harm fish habitat. The long-term objective of DFO is to achieve a net gain in the productive capacity of fish habitat for Canadian fisheries resources. A fundamental strategy for achieving this is to prevent the further erosion of productive capacity of existing habitats. Productive capacity is defined in the Habitat Policy to mean the maximum natural capacity of habitats to produce healthy fish, safe for human consumption, or to support or produce aquatic organisms upon which fish depend. DFO will strive to achieve No Net Loss by avoiding impacts, by the application of mitigation and, failing that, to balance unavoidable habitat losses through habitat compensation on a project-by-project basis to maintain the productive capacity of habitats supporting fisheries resources. The Habitat Policy also places emphasis on integrated resource planning and review of project proposals on an ecosystem basis taking into account Fish Habitat Management plans and/or Fisheries Management Plans where they exist.

Under the *Nunavut Land Claims Agreement*, DFO participates in the regulatory review process led by the Nunavut Water Board (NWB). In this context, DFO has reviewed the Water License application and supporting documents as submitted by the City of Iqaluit for impacts to fish and fish habitat. DFO respectfully submits the following comments as expert advice to the NWB to assist in their review of this project. The information requests presented in this submission may be subject to change as new information is brought forward by the City of Iqaluit during the Public Hearing. Should new information be obtained, any changes in DFO's recommendations will be brought to the attention of NWB.

## **2. REGULATORY REVIEW AND RECOMMENDATIONS:**

### **2.1 General Conditions - Water Quality:**

Under agreement with DFO, Environment Canada (EC) administers section 36(3) of the *Fisheries Act* which prohibits the deposit of deleterious substances into fish frequented waters, unless authorized by regulation made under the *Fisheries Act*. While many aspects of water quality are administered by EC, DFO does maintain an interest in potential increases in suspended sediment due to the potential for sediments to smother habitats once out of suspension.

With respect to the water license application for the City of Iqaluit, DFO concurs with EC recommendations for water quality parameters as it relates to effluent discharge. See Section 2.3 for recommendations related to sedimentation.

## **2.2 Water Supply - Alternate Sources for Recharge:**

The City of Iqaluit Raw Water Supply and Storage Review (Trow Associates Inc, April 2004) identifies in Section 6, page 27 several water bodies as candidate sites for withdrawal to recharge Lake Geraldine. The preferred site is located along the Apex (Niaqunguk) River, and would require the installation of a water intake structure and the construction of an access road.

The development of future withdrawal sites was previously discussed during the technical meetings in September 2004. At that time, the City indicated that the development of an alternate site to supplement/recharge water supplies in Lake Geraldine would not proceed under this license, but would likely be pursued at a future time.

Whether this option is pursued during the term of this license application or in the future, DFO would like to bring to the Board's attention the need to determine the impacts of water withdrawal on potential aquatic resources such as fish and fish habitat in the candidate sites. The withdrawal of water from fish-bearing water bodies has the potential to entrain and impinge fish, result in the disruption or loss of fish habitat due to the construction of the water intake structure, and the potential to alter water flows in the downstream reaches which could affect fish utilization. Therefore, in order to assess the potential impacts of water withdrawal, it will be necessary to conduct aquatic studies in the candidate site. DFO would be pleased to discuss this further with the City of Iqaluit during the planning stages of this potential option.

### **Recommendation #1**

- The development of alternate sources for recharge to the Lake Geraldine reservoir needs to fully assess the impacts of water withdrawal on aquatic resources within the candidate sites, prior to submitting to a request for a water license modification.

## **2.3 Construction Plans:**

During the construction, modification and maintenance of the various components of municipal infrastructure, it is likely that some of these works will occur in and around water bodies and that they will have the potential to harmfully impact fish and fish habitat. Activities associated with such things as the reclamation of the sewage lagoon facility, dam construction etc. could involve the use of machinery in fish habitat, the withdrawal of water from watercourses, and disturbing the bed and banks of water bodies resulting in erosion and sedimentation. In most cases, there are readily identified mitigation measures that can substantially reduce the impacts to fish and fish habitat. Although not all inclusive, best management practices that can mitigate impacts to fish and fish habitat include such things as:

- the implementation and maintenance of sediment and erosion control measures to prevent sedimentation into adjacent watercourses,
- the restoration of disturbed areas adjacent to water bodies,
- the limitation on the use of machinery in the water bodies,
- the restriction on the use of explosives in or near fish-bearing waters, and
- the use of fish screens during any water taking activities as outlined in the DFO guidelines.

DFO would be pleased to further discuss these measures with the City of Iqaluit, prior to incorporating them into the necessary construction plans associated with the municipal infrastructure.

Recommendation #2:

- DFO recommends that construction and maintenance plans for all infrastructure works or undertakings that occur in and around water include Best Management Practices that will mitigate potential harmful impacts to fish and fish habitat.

DFO looks forward to attending the Nunavut Water Board Public Hearings for the City of Iqaluit's water license application. Should you have any questions, please contact me directly by telephone at (867) 979-8011 or by fax at (867) 979-8039.

Yours sincerely,

***Original signed by:***

Derrick Moggy  
Habitat Management Biologist  
Fisheries and Oceans Canada – Eastern Arctic Area

Copy: Geoff Baker – City of Iqaluit