

**SUBMISSION TO THE
NUNAVUT WATER BOARD
ON THE APPLICATION BY
THE MUNICIPALITY OF IGLOOLIK
FOR A MUNICIPAL WATER LICENCE**

**PUBLIC HEARING
FEBRUARY 18, 1998**

**INDIAN AND NORTHERN AFFAIRS CANADA
NORTHWEST TERRITORIES REGION**

**PREPARED BY:
WATER RESOURCES DIVISION
REGULATORY APPROVALS SECTION**

**MUNICIPALITY OF IGLOOLIK
WATER LICENCE APPLICATION
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1.0 INTRODUCTION

This submission, on the application for a Municipal Water Licence by the Municipality of Igloolik, is submitted and presented on behalf of the Water Resources Division of the Department of Indian and Northern Affairs Canada.

This submission will be based on the Water Licence Application received by the Nunavut Water Board on August 15, 1997 and recent visits by the Departmental Inspector.

2.0 CONDITIONS APPLYING TO WATER USE

The Municipality currently gets raw water from South Lake where it is pumped to the water reservoir. Water consumption is estimated at 35,000 m³/year for 1996 but is expected to rise to 42,911 m³/year over the next few years as a result of Territorial Government decentralization.

Water Resources Division recommends that clauses be included in the Water Licence to identify the water supply source, the reservoir and the volume limits for all purposes. In this case the source is South Lake and the annual volume should not exceed 45,000 m³/year for the term of this licence. This amount also takes into consideration the estimated population growth as a result of Territorial Government decentralization.

The intake hose should also be equipped with a mesh size sufficient to ensure no entrainment of fish.

A SNP Station should be established at the water intake pump to measure the volume of intake.

3.0 CONDITIONS APPLYING TO WASTE DISPOSAL

The existing sewage facilities include a honey bag pit and a 2-cell (with a 3rd to be constructed this summer) sewage lagoon. The estimated capacity of the existing lagoon is 37,320 m³ with a retention time of 240 days and an estimated rate of discharge is 580 m³/day. The discharge occurs seasonally through July, August and September via a seepage berm and effluent filters over a few hundreds of metres of tundra before entering the Bay. To date, there have been no health or environmental problems concerned with the sewage disposal facilities. Although clarity is good prior to entering the sea, there is no one discrete point in which a sample could be collected. However, the most visible area of flow should be sampled annually, during periods of flow and analyzed for parameters based on the Northwest Territories Water Board's "Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories".

Water Resources Division recommends that the most visible area of flow prior to entering the ocean from the sewage lagoon be sampled annually, during periods of flow and analysed for the following parameters:

Total Suspended Solids	180 mg/L
BOD	120 mg/L
pH	6 - 9
Oil and Grease	No visible sheen
Ammonia	Monitor only

According to the guidelines, "In the case of an open, well flushed marine bay or fjord, bacteriological standards will be of concern only where the discharge might affect a fishery (including shellfish harvesting) or water contact recreation." As there is no mention of such in the application, there is no need to analyze for Fecal Coliforms.

The Municipality currently disposes of bagged toilet wastes into the honey bag pit north of the sewage lagoon and the area is covered with layers of granular material as required. Water

Resources is satisfied with this practice.

Water Resources recommends that all bagged toilet wastes (honey bags) be disposed of at the Bagged Toilet Waste Facilities in a manner to the satisfaction of an Inspector.

There is an existing waste disposal site, however, there are no procedures in place for the proper operation and maintenance of the site to prevent contamination to surrounding waters. The procedures for the proper operation of the solid waste disposal site can be included with the Operation and Maintenance Plan.

Water Resources recommends that all solid wastes be deposited at the solid waste disposal facility or at a facility approved by the Board. An SNP sampling site would be appropriate at the solid waste disposal site to monitor annual runoff but the parameters should not be too onerous on the Municipality.

Water Resources Division also recommends the placement of warning signs at the reservoir, water supply and waste disposal facilities. These signs are to be maintained to the satisfaction of an Inspector.

4.0 CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

There are indications in the application that the Municipality will be expanding as a result of Territorial Government decentralization. If any waste disposal or water use facilities are to be abandoned for a new facility then the licensee should be required to provide the Board with an abandonment and restoration plan prior to abandoning the existing facility.

Water Resources recommends the requirement for an abandonment and restoration plan prior to abandoning any waste disposal or water use facility. The plan should also require

the Board's approval.

5.0 CONDITIONS APPLYING TO OPERATION AND MAINTENANCE

Water Resources recommends a requirement for an Operation and Maintenance Plan for the Waste Disposal Facilities be submitted to the Board for approval within 6 months of the issuance of the licence. In addition to the basic requirements, the plan should address the waste metal and the hazardous material disposal areas at the solid waste disposal site, identifying the designated areas and the handling procedures.

6.0 RECOMMENDED TERM OF LICENCE

Water Resources recommends a five year licence term to allow enough time for the Municipality to establish a consistent compliance record.

Water Resources also recommends allowing the Municipality to review and comment on the draft licence prior to it being approved. This will allow them to express any reservations they may have at this point. Hopefully, any reservations can be resolved early in the process and minimize any non-compliance issues in the future.