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March 21, 2003

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Sent by email to:
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Igloolik Water Licence Renewal Application

On behalf of Indian and Northern Affairs Canada (INAC), I am pleased to submit the following comments on the water licence renewal application for the Municipality of Igloolik.

1. Introduction

This submission, on the application for a municipal water licence by the Municipality of Igloolik, is submitted on behalf of the Water Resources division of INAC.

This submission will be based on the water licence application received by the Nunavut Water Board (NWB) on February 5, 2003. Past inspection reports have also been taken into consideration.

2. Conditions Applying to Water Use

The Municipality currently receives water from its reservoir, located approximately 3.5 km south of town. The reservoir is mainly filled with water pumped from South Lake, located 2 km south of the reservoir. This is supplemented during the summer months with water pumped from the nearby Airport Lake, situated next to the reservoir.

A truck fill station is located at the reservoir. The water receives a chlorine treatment and is then distributed to the community by truck. Water consumption will reach 57,756 m^3/year in 2003. By 2008, consumption is expected to reach 66,142 m^3/year, while a consumption rate of 73,839 m^3/year is expected by 2012.

As requested by the Municipality, assuming a 5 year water licence (2003 to 2008), INAC recommends that the annual volume of water pumped from South Lake and Airport Lake should not exceed 67,500 m^3/year for the term of the licence.

SNP station 1 should be designated as “raw water supply from all water sources,” to be measured at the truck fill point. It should be used to measure the monthly quantity of water pumped from South Lake and Airport Lake.

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INAC also recommends the installation of warning signs along both water source lakes indicating that the lakes are the source of the Municipality's drinking water.

3. Conditions Applying to Waste Disposal

Sewage is trucked from the residential holding tanks to the sewage disposal area located approximately 1.6 km north of the Municipality. The lagoon is a three-cell exfiltration lagoon with a capacity of 17,000 m^3. A fourth cell in under construction and is expected to increase the capacity of the lagoon by up to another 2000 m^3. The effluent that exfiltrates from the lagoons proceeds downstream through a natural wetland where it receives additional treatment prior to reaching the marine environment.

A few houses of the Municipality are still using honeybags. The honeybags are disposed of in the honeybag pit which is situated at the north end of the lagoon.

INAC recommends that SNP station 2 be designated as "raw sewage from the pumpout truck." Station 2 should be used for the monthly measurement of sewage generated by the Municipality.

Also, SNP station 3 should read as "runoff below the sewage disposal area prior to discharge into the marine environment." This should include sampling of the sewage effluent prior to reaching the marine environment in the area of greatest flow. The sewage effluent at SNP station 3 should be sampled monthly during periods of flow for the following parameters and limitations:

Total Suspended Solids	180 mg/L
BOD	120 mg/L
Fecal Coliform	10,000 CFU/100 mL
pH	6 to 9
Oil and Grease	no visible sheen
Ammonia	monitor only

Warning signs should be posted along the flow path of the sewage effluent.

The Municipality's solid waste management site is located adjacent to the sewage disposal facilities, roughly 1.5 km from the community. Waste is segregated, with a generic landfill area, a bulky wastes area, and a sea lift container for hazardous wastes. Combustible wastes are burned on a daily basis, and the landfill is compacted and covered on a yearly basis.

INAC recommends that a proper fence be installed around the perimeter of the solid waste disposal area.

INAC also recommends that SNP station 4 read as "runoff below the solid waste disposal area and prior to discharge into the bay." Monitoring should take place at station 4 on a monthly basis during periods of flow. The parameters to be monitored should not be too onerous for the Municipality.

4. Conditions Applying to Abandonment and Restoration

The Municipality does not plan to abandon any of their current waste treatment facilities. Should this change in the near future, the Municipality should provide an Abandonment and Restoration Plan to the NWB prior to abandoning that facility.

5. Conditions Applying to Operation and Maintenance

INAC recommends a requirement for an Operation and Maintenance (O&M) Plan for the waste disposal facilities be submitted to the NWB for approval within a suitable period after the issuance of the licence. The O&M Plan should include - but not be limited to - provisions for the segregation and storage/disposal of hazardous waste such as petroleum or batteries.

6. Recommended Terms of Licence

INAC agrees with the Municipality's request for a 5 year term. This will allow enough time for the Municipality to establish a consistent compliance record. This should also give them time to resolve any unforseen potential problems with their proposed upgrade to their sewage treatment facility.

Finally, INAC recommends allowing all interested parties to review and comment on the draft licence prior to it being issued. This will allow the Municipality of Igloolik 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.

If you have any concerns or questions, please feel free to contact me.

Sincerely,

Original Signed By: Michael Roy

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