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Sent by email to:

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Sanikiluaq Water Licence Application

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

1. Introduction

This submission, on the application for a municipal water licence by the Municipality of Sanikiluaq, 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 19, 2003. Past inspection reports have also been taken into consideration.

2. Conditions Applying to Water Use

The Municipality currently receives water from Sanikiluaq Lake, situated directly at the western edge of town. The water is chlorinated then distributed to the community by truck. Water consumption is estimated to be approximately 27,392 m³/year in 2003. Water consumption is expected to reach approximately 31,231 m³/year in 2008 and 34,728 m³/year by the year 2012.

The Municipality is requesting an annual water use rate of 31,500 m³/year. Assuming a 5 year water licence (2003 to 2008), INAC agrees with this requests and recommends that the annual volume of water pumped from Sanikiluaq Lake should not exceed 31,500 m³/year for the term of the licence.

SNP station 1 should be designated as “raw water supply from Sanikiluaq Lake,” to

be measured at the truck fill point. It should be used to measure the monthly quantity of water pumped from Sanikiluaq Lake.

INAC also recommends the installation of warning signs along Sanikiluaq Lake indicating that the lake is the source of the Municipality's drinking water.

3. Conditions Applying to Waste Disposal

Both honey bagged and pumpout sewage is collected by the Municipality. The sewage and honey bags are disposed of in Annak Lake, located 2.9 km west of the community. The lake has been divided in a section for sewage, and another smaller section for the honey bags. A gravel berm was installed at the lake's discharge point to increase the retention time, effectively turning the lake into a sewage lagoon.

During the 2002 inspection by INAC's Water Resource Officer, a hamlet sewage truck was observed dumping sewage outside of the sewage lagoon. INAC recommends that a condition to the licence be that all sewage must only be disposed of in a facility approved by the NWB. Also, the area where the sewage was dumped should be treated as a spill area and remediated appropriately. The clean-up of that area should be done to the satisfaction of the Inspector. Finally, the apparent reason for dumping sewage outside of the lagoon was because of the erosion of the access ramp to the lagoon prevented the sewage truck from approaching close enough to the lagoon. INAC recommends that Municipality look into options to prevent such an occurrence from happening again.

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

Also, SNP station 3 should read as "runoff below the sewage disposal area prior to discharge into the Eskimo Harbour." 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 solid waste disposal site of the Municipality of Sanikiluaq is located 2.9 km to the west, near the Annak Lake sewage lagoon. The solid waste disposal area covers roughly 360,000 m². There is an additional 250,000 m² area for the disposal of bulky metal waste. According to inspection reports, however, the waste materials aren't well segregated. The facility is inadequately fenced, and windblown debris extend the effective area of the waste disposal site even more.

The waste is burned as necessary, and compaction is done by bulldozer as required. Covering of the waste is difficult due to the nature of the ground in the area.

Waste oil is burned at the municipal garage. Hazardous waste is apparently segregated and stored in a sealift container.

Due to the scattered nature of the waste disposal area, INAC recommends that the area be consolidated into a smaller area that is easier for the Municipality to manage. During the consolidation, the waste can be more appropriately segregated. The final consolidated area should then be fenced to contain windblown debris. This will obviously require significant work on the part of the Municipality.

INAC also recommends that SNP station 4 read as "runoff below the solid waste disposal area and prior to discharge into Eskimo Harbour." 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 proponent does not plan to abandon any of their current waste treatment facilities, although the current sewage lagoon will likely become the future honey bag disposal pit. Should the Municipality plan on abandoning any facility in the future, an Abandonment and Restoration Plan should be submitted to the NWB prior to abandoning any of the facilities.

The consolidation of the waste disposal area may require that certain areas be restored. Plans for the consolidation of the waste disposal area should be presented to the NWB for approval.

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 6 months of the issuance of the licence. This 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 recommends a 5 year term to allow enough time for the Municipality to establish a consistent compliance record.

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 Sanikiluaq 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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