



Environment Environnement
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Our file: 4782 027

RE: NWB3IGL9803 – Hamlet of Igloolik Water Licence

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

The Hamlet of Igloolik is applying for a 5-year water license to obtain water for municipal use from South Lake and Airport Lake. Liquid sewage is currently treated in a series of exfiltration ponds located 1.6 km north of the hamlet. These ponds are currently at capacity and are in the process of being upgraded.

Environment Canada would like to note that as Ferguson Simek Clark (FSC) used a modified water use estimate calculation to determine sewage generation rates, which assumed a population of below 2,000 (based on the fact that Igloolik has no plans to develop a piped system), future sewage generation rates may be higher than projected as Igloolik's population projection is 2,754.

Environment Canada requires the following information in order to facilitate the review of this document:

- FSC has identified that Alberta's Environmental Protection Guidelines have been used to define the area of the wetland and its expected effluent quality. Environment Canada requests further clarification as to why these guidelines were used rather than the Canadian Council of Ministers of the Environment (CCME) guidelines.
- In Section 5.2 of the FSC report entitled "Igloolik Sewage Lagoon", the height of the exterior berms reported in Options 1, 2, 3, and 4 are different in the main tables as opposed to the footnotes. Environment Canada requests clarification as to the height of the exterior berms.

- A more detailed map indicating the location of the sewage treatment facilities, including the current lagoons, any future planned lagoons, the honey bag pit, the solid waste area, and the hazardous waste storage area, including their location in relation to water, be provided.
- Information regarding the depth of the wastewater lagoons, the freeboard design, and the location of the discharge points.
- A Spill Contingency Plan, outlining a clear plan of response in the event of a spill, and clearly indicating that all spills are to be documented and reported to the NWT 24 Spill Response Line at (867) 920-8130.

The following recommendations have been included for your consideration and inclusion in the water license:

- Environment Canada recommends that the current solid waste site be completely fenced to prevent windblown debris from being scattered.
- The Municipal Water License Supplementary Questionnaire, as well as the Indian and Northern Affairs Canada (INAC) Inspection Report indicates that there has been trouble with seepage from two of the cells, as well as cracking along the rims of the cells. Environment Canada recommends that in order to ensure that the effluent continues to meet discharge requirements, an additional berm, or other such preventative measure, be constructed prior to the final discharge point.
- Signage indicating the location of the any past and the present sewage disposal and solid waste disposal sites should be erected.
- Environment Canada requests information regarding the design of any new waste disposal area, and requests a copy of the abandonment and restoration plan for the existing waste disposal facility.
- The proponent shall ensure that any hazardous wastes are disposed of at an approved facility.
- Given that the current sewage treatment facilities are near capacity (even with the fourth cell), EC recommends that the Hamlet continue with their plans to construct new sewage treatment facilities. However, EC recommends that the proponent err on the side of caution in regards to the capacity of the new system, in order to account for the possibility of larger sewage generation rates due to the modified water use estimate calculation was used in estimating future sewage generation rates. Environment Canada also requests that, once available, more detailed information on the preferred option be submitted.

Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 975-4639 or by email at colette.meloche@ec.gc.ca.

Yours truly,

Colette Meloche
Environmental Assessment Specialist

cc: (Mike Fournier, Northern Environmental Assessment Coordinator, Environment Canada, Yellowknife)