

February 12, 2024

George Qaunaq Senior Administrative Officer (SAO) Municipality of Igloolik P.O. Box 30 Igloolik, Nunavut X0A 0L0

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RE: NWB Technical Review of 2022 Annual Report for the Municipal Water Licence No: 3AM-IGL2131 for the Municipality of Igloolik

Megan Lusty

P.O. Box 1000

Manager, Municipal Works

Iqaluit, Nunavut X0A 0H0

Government of Nunavut-CGS

Licence No: 3AM-IGL2131

Dear Mr. Qaunaq and Ms. Lusty,

The Nunavut Water Board (NWB or Board) has completed a technical review of the 2022 Annual Report submission for the above stated Water Licence. On March 29, 2023, the Board acknowledged receipt of the 2022 Annual Report, and provided them to the Qikiqtani distribution list for information. Comments were received from CIRNA on June 6, 2023 and Environment and Climate Change Canada (ECCC) on June 29, 2023. The Licensee requested extensions on August 28, 2023, September 15, 2023 and October 31, 2023. The Licensee provided responses on November 3, 2023 and November 22, 2023. ECCC responded on November 22, 2023 stating that the Licensee's response was satisfactory. Two of CIRNAC's information requests remain unresolved.

The table below summarizes the comments received:

Crown-Indigenous Relations and Northern Affairs				
#	Comment	GN-CGS response		
1	CIRNAC recommends the Government of Nunavut provide the name or origin of the undefined sources of water tabulated in the 2022 Annual Report. In compliance with the water licence, CIRNAC recommends the daily, monthly, and annual quantity of freshwater withdrawn from South Lake at Monitoring Station No: IGL-1 is recorded and subsequently reported in the 2022 Annual Report, and specify if any daily rates exceeded 299 cubic metres.	The water source is South Lake, the primary water source of the Municipality of Igloolik. Table 1 is a summary of water usage based on billing records from the municipality. This is water that has been obtained from the engineered reservoir and delivered to residential and commercial properties in the community.		

	Follow-up: The Licensee has not provided the 2022 daily, monthly, and annual quantities in cubic metres of freshwater withdrawn from South Lake and Fish Lake at Monitoring Station No: IGL-1 and IGL-1a, respectively. The Licensee has not demonstrated that they did not exceed a maximum rate of 299 cubic metres per day from South Lake and/or Fish Lake to support community needs in 2022. The Licensee is therefore in non-compliance with the 2022 annual reporting requirements as specified in Water licence 3AM-IGL2131.	No response received. The Licensee requested an extension to March 31, 2024 to respond.
	(This information request remains unresolved)	
2	CIRNAC recommends the Government of Nunavut devise a reporting system for measuring the quantity of any discharges to the Sewage Disposal Facility at Monitoring Station IGL-3.	Sewage quantities are conservatively measured based on water delivery billing records for all Municipalities with trucked sewage collections. This has been the long-established reporting system for all Municipalities across Nunavut with lagoon systems.
	Follow-up: CIRNAC considers water delivery an indirect and inadequate measure of sewage production. Water delivery does not account for releases to the environment and/or water use not associated with sewage production. CIRNAC reiterates comment R-02 that the Licensee devise a reporting system for measuring the quantity of any discharges to the Sewage Disposal Facility at Monitoring Station IGL-3 to satisfy Schedule B Part B, Item 1b of Type "A" Water Licence No: 3AM-IGL2131.	No response received. The Licensee requested an extension to March 31, 2024 to respond.
	(This information request remains unresolved)	
3	CIRNAC recommends the Government of Nunavut specify where the 2022 sludge removal measurements are reported.	Sludge was not removed. Statement that no sludge removal to report will be added to future Annual Reports.

4	CIRNAC recommends the Government of Nunavut clarify that cell #2 and cell #3 correspond to lagoon B and C, respectively. CIRNAC recommends the Government of Nunavut include the dates of discharge from the Sewage Disposal Facility. CIRNAC recommends the Government of Nunavut include the 2022 analytical results for Station IDs IGL-4A, IGL-4B, IGL-4C, IGL-5A, IGL-5B, and IGL-5C in the 2022 Annual Report to remain in compliance with the water licence terms and conditions or provide an explanation as to why it was not done.	Confirmed, cell #2 and cell #3 correspond to lagoon B and C, respectively. All available monitoring results were included in the 2022 Annual Report. While it is not possible to retroactively provide results from the 2022 monitoring program that were not sampled that year, the Municipality of Igloolik will strive for full compliance in the 2024 monitoring program year, with the continued support of CGS.
5	CIRNAC recommends the Government of Nunavut submit the 2022 Engineer's report for the structural integrity of the Sewage Disposal Facility with the 2022 Annual Report. CIRNAC recommends the Government of Nunavut submit a status update on the amount of daily seepage from cell A, the spill containment measures employed, and response to if repairs will be completed prior to the 2023 water licence inspection.	The Igloolik Wastewater Treatment Facility – Sewage Lagoon Berm 2022 Dam Safety Inspection (DSI) is provided. There is not yet a timeline for repairs. CGS is pursuing funding and will move forward with this as soon as feasible.  No 2022 daily seepage. Following DSI recommendation, Table 7-1, seepage from cell A is being avoided by maintaining lagoon levels around 150mm below the 1 m freeboard level.
	Follow up: CIRNAC recommends the Operations and Maintenance manual (EXP, 2021) be updated with the items and recommendations from the Igloolik Wastewater Treatment Facility – Sewage Lagoon Berm 2022 Dam Safety Inspection, and the updated plan be submitted to the NWB with the 2023 Annual Report for review.  CIRNAC considers comment R-05 and R-05a resolved for 2022 annual reporting.	

	<b>Environment and Climate Change Canada (ECCC)</b>				
#	Comment	GN-CGS response			
1	ECCC recommends GN-CGS clarify the location (SNP station) for the monitoring results provided in Appendix A of the annual report.	Appendix A referred to the effluent quality limits listed in Part E, Item 3 for IGL-4 and IGL-5, final effluent control points and final effluent discharge points, respectively. As the Municipality of Igloolik did not sample at these sites during the 2022 monitoring program, sample results taken from IGL-3 were used for comparison to the effluent quality standards to demonstrate results were below effluent quality limits.  While it is not possible to retroactively provide results from the 2022 monitoring program that were not sampled that year, the Municipality of Igloolik will strive for full compliance in the 2024 monitoring program year, with the continued support of CGS.			
2	ECCC recommends GN-CGS provide a description of overall monitoring completed in 2022, including, whether sampling occurred at IGL-2, IGL-4, and IGL-5. If monitoring did not occur, rationale should be provided. If monitoring did occur, results should be provided.	All available monitoring results were included in the 2022 Annual Report. The Municipality of Igloolik is responsible for completing the monitoring program, however, CGS will continue to offer support.			
3	ECCC recommends GN-CGS clarify whether a CIRNAC inspection occurred in 2022, and if so, provide the report.	Apologies for the typographical error. This section should have read "no CIRNAC inspection in 2022". Requests for CIRNAC inspection reports should be directed to CIRNAC.			
4	ECCC recommends GN-CGS describe the QA/QC procedures/sampling that were included during the 2022 sample collection. If QA/QC was not included, provide rationale for exclusion and a description of how omissions of QA/QC will be prevented in future sampling.	QA/QC was not included in the 2022 sampling collection. Municipality of Igloolik will strive for full compliance of the approved QA/QC Plan in the 2024 monitoring program year, with the continued support of CGS.			

While the Board acknowledges that the Licensee committed to provide additional information/clarification within the 2023 Annual Report the Board would like to highlight that Licence terms and conditions shall be fully met by the Licensee (i.e. daily, monthly, and annual

quantities in cubic metres of freshwater withdrawn from water sources, reporting system for measuring the quantity of any discharges to the Sewage Disposal Facility at Monitoring Station IGL-3 etc.). The NWB strongly recommends to address all unresolved comments submitted by CIRNA and ECCC on the issues identified along with the 2023 Annual Report information. This information is attached for your consideration.

Should you have any questions, please feel free to contact the undersigned at (867) 360-6338 (extension 26) or <a href="mailto:amos.kamookak@nwb-oen.ca">amos.kamookak@nwb-oen.ca</a>, at your earliest convenience.

Amos Kamookak Nunavut Water Board, Assistant Technical Advisor

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Enclosure: Comments – CIRNA, ECCC

Cc: Distribution List – Qikiqtani