

**File: 3AM-PAN1828** 

September 19, 2024

Jack Hicks Senior Administrative Officer Hamlet of Pangnirtung P.O. Box 253 Pangnirtung, NU, X0A 0R0

Email: sao@pangnirtung.ca

RE: NWB Technical Review of 2023 Annual Report for the Hamlet of Pangnirtung; Water Licence No: 3AM-PAN1828

## Dear Jack Hicks:

The Nunavut Water Board (NWB or Board) has completed the technical review of the 2023 Annual Report (Report) for type A Water Licence No: 3AM-PAN1828 (Licence) issued to the Hamlet of Pangnirtung (Hamlet or Licensee).

The NWB received the Annual Report from the Hamlet of Pangnirtung on June 25, 2024. On June 26, 2024, the NWB requested the Licensee to respond to the outstanding concerns from the 2022 annual report. Following the request, the NWB staff had additional communication with the Licensee on June 28, 2024.

On July 15, 2024, the NWB distributed the Annual Report for a two-month public review. Comments were received from Crown-Indigenous Relations and Northern Affairs (CIRNA)<sup>1</sup> and Environment and Climate Change Canada (ECCC)<sup>2</sup> on September 16, 2024.

Table 1 briefly summarizes issues found outstanding during the Report review. The table also provides the Licensee's summarized response to the outstanding concerns and deadlines for the Licensee to respond to respective recommendations and concerns. For the Intervenors' discussion of these items, please refer to the comment submissions referenced above.

<sup>&</sup>lt;sup>1</sup>Crown-Indigenous Relations and Northern Affairs Canada's Review of the 2023 Annual Report for Water Licence 3AM-PAN1828 for the Municipality of Pangnirtung in the Qikiqtani Region of Nunavut, September 16, 2024 <sup>2</sup> 3AM-PAN1828 – Hamlet of Pangnirtung – 2023 Annual Report, ECCC, September 16, 2024

Table 1 Recommendations/Concerns, Licensee Response and Deadline to Provide Outstanding Information

TRC	Recommendation/Concerns	Licensee Response/Deadline to Provide Additional Information		
Crown-Indigenous Relations and Northern Affairs				
R-01	CIRNA recommends the Licensee: - provide the name or origin of all water sources for both the 2022 and 2023 calendar years, - the daily, monthly, and annual quantity of freshwater withdrawn from Duval River at Monitoring Station No. PAN-1 is reported for both the 2022 and 2023 calendar years, and - provides reason for any withdrawals from Duval River that took place outside of the months of July and August in the 2022 and 2023 calendar years.	The Licensee clarified the following:  - There is only one source of water i.e., the Duval River.  - PAN-1 which is the raw water testing point is practically located inside the plant. A flow meter should be installed but there is no electricity, the monthly consumption was reported.  - When the snow starts melting, the turbidity increases and the water cannot be extracted. The water is extracted in mid-September when the turbidity goes down.		
R-02	CIRNA recommends the Licensee provide details on a reporting system for measuring the quantity of any discharges to and from the Wastewater Treatment Facilities at Monitoring Stations PAN-2 (Raw Sewage from pump-out truck) and PAN-3 (effluent from wastewater treatment plant) in accordance with Schedule H Table 2 of Water licence 3AM-PAN1828.	- The former operator has retired and the new operator is in the training phase and has committed to improving the testing protocol from this year onwards PAN-2 receives sewage from the truck and there is no mechanism in place to measure the volume.		
R-03	CIRNA recommends the Licensee include all dates of discharge in 2022 and 2023 from the Sewage Disposal Facility, and reasoning if Monitoring Program Station PAN-3 analytical results are not available for all discharge dates.	<ul> <li>The discharge from the Sewage Disposal Facility is continuous.</li> <li>There were operational difficulties in testing after the change of operator.</li> </ul>		
R-04	CIRNA recommends the Licensee include the 2022 and 2023 sludge removal measurements in the 2023 Annual Report, or provide reason for why this was not done.	The sludge is placed in a hopper and disposed of on the landfill site. Accurately measuring the sludge volume is challenging as the hopper may be partially or fully filled at different times. Estimates should be provided in future annual reports.		
R-05	CIRNA recommends the Licensee include the 2018 to 2023 Duval River instantaneous flow and mean annual	March 31, 2025		

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	discharge measurements in the Annual Report, or provide reason for why this	
	was not done. If there are no flow gauges	
	nor levels to monitor the Duval River	
	installed, CIRNA recommends the	
	Licensee provide a timeline for when	
	they will be in compliance with Part D	
	item 6 of water licence 3AM-PAN1828.	
R-06	CIRNA recommends the Licensee submit the 4 updated documents with the 2023 Annual Report, or provide reason for why this has not been done.	The Licensee committed to submitting the plans by December 31, 2024, with the exception of the standalone Drainage/Seepage Monitoring Plan which will be submitted following the completion of the Pilot Project on Community planning by CIRNA.
R-07	CIRNA recommends the Licensee submit the dates when observed discharge flow began and ended at each of Monitoring Program Stations PAN-4, PAN-5 and PAN-6 in 2022 and 2023. CIRNA recommends the Licensee provide reason for why only one analytical result was submitted for each station in 2022, and only PAN-4 in 2023. CIRNA recommends the Licensee report all unauthorized releases of deleterious substances that occurred in 2023.	The Licensee has committed to providing this information in future annual reports.
	CIRNA recommends the Licensee	
	confirm the appropriate flow-metering	
R-08	equipment was installed to accurately record the quantity of water withdrawn	March 31, 2025
IK 00	from the Duval River in accordance with	Widien 51, 2025
	Part D Item 3 of Water licence 3AM-	
	PAN1828.	
	Environment and Climate	Change Canada
	ECCC recommends that seepage from	
1.	the sludge disposal area and effluent from the WWTP be contained, treated or	
	managed such that poor quality water	
	does not enter waters frequented by fish.	In future annual reports
	Effluent exceedances should be reported	
	as required under the Fisheries Act and	
	NWB licence conditions.	
2.	ECCC recommends the Proponent: - Identify sources of heavy metals and	March 31, 2025

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	causes of elevated nitrogen compounds	
	in WWTP effluent; and -Identify options to optimize WWTP	
	process to remove excess metals and	
	nitrogen compounds.	
	ECCC recommends the measures be	
3.	taken to attempt to capture all leachate	
	from the sludge disposal area for	
	appropriate management such that poor	In future annual reports
	quality water does not report to	
	Pangnirtung Fiord.	
	ECCC recommends the Proponent	
	sample at the frequency prescribed in	
	their water licence and that future annual	
4.	reports include explanations of why	In future annual reports
	samples are missing or were not	
	collected, including reporting the	
	absence of runoff.	
		The sludge is placed in a hopper and
	ECCC recommends the Proponent	disposed of on the landfill site.
5.	report estimates of sludge removed from	Accurately measuring the sludge volume is challenging as the hopper may be
	the Wastewater Treatment Plant in	partially or fully filled at different times.
	future annual reports.	Estimates should be provided in future
		annual reports.
		The Licensee suggested that there is no
6.		mechanism in place to measure the
		volume or weight of waste deposited at
	ECCC recommends the Proponent	the landfill. The Licensee is planning on
	report estimates of quantities of waste	creating a new waste management plan.
	disposed at the landfill in future annual	Additionally, the funding constraints are
	reports.	making it difficult to comply with the
		Licence terms and conditions.
		Estimates should be provided in future
	FOCO	annual reports.
7.	ECCC recommends the Proponent	
	correct deficiencies in their future Monitoring Program summary reports,	In future annual reports
	which should be submitted with the	In future annual reports
	annual reports.	
	annual reports.	

Copies of all documents received during the Annual Reports review can be accessed through the NWB's Public Registry and FTP site using the following link:

If you have any questions, please contact the undersigned at <a href="mailto:nidhi.singh@nwb-oen.ca">nidhi.singh@nwb-oen.ca</a> or (867) 360 6338 (ext. 32).

Best regards,

Nidhi Singh

Technical Advisor

Nunavut Water Board

Enclosure: Comments - CIRNA, ECCC;

Cc: Distribution List – Qikiqtani