

July 27, 2022

Nunavut Water Board P.O. Box 119 Gjoa Haven, NU XOB 1L0

Attention: Richard Dwyer, Manager of Licensing

## RE: 3BM-WHA2126 - Municipality of Whale Cove - Amendment Application

Dear Richard,

The Government of Nunavut Department of Community and Government Services (CGS) on behalf of the Municipality of Whale Cove has prepared a response to the comments submitted by Environment and Climate Change Canada (ECCC) and Crown Indigenous Relations and Affairs Canada (CIRNAC) on the water license amendment application.

Regards,

Elan Chalmers Manager, Municipal Works Government of Nunavut Community and Government Services

Email: echalmers@gov.nu.ca

Agency	Comment	Recommendation	Licensee Response
ECCC	O1	ECCC recommends that the Proponent provide additional rationale for the change in compliance location given that the existing lagoon as monitored at WHA-3 is providing treatment to meet effluent quality criteria.	The lagoon is only intended to be the first step in the multi-step treatment facility and therefore the compliance point should be established at the facility outlet. According to the facility's Design Brief the lagoon was expected to provide a 35% and 65% reduction in BOD <sub>5</sub> and TSS respectively whereas the wetland was expected to provide an additional 80% and 90% BOD <sub>5</sub> and TSS respectively based on the wetland assessment. Though the lagoon has historically met the effluent quality limits, it was designed to hold and partially treat sewage until 2032. As the population grows the lagoon alone may not be able to meet the treatment objectives, nor was it intended to.  Unfortunately, in Nunavut having a point of control where effluent could theoretically be held in a lagoon for longer treatment prior to discharge is not feasible. The lagoon must be emptied prior to freeze each year in the 2-month ice free window to ensure sufficient capacity to receive sewage for the next year and to maintain freeboard on berms. Members from GN-CGS met with Lisa Bachellier and Sarah Forté from ECCC on August 6, 2021, where they provided this history on why compliance limits had previously been placed at the lagoon as a control point rather than the wetland-treatment-area but recognized it was not appropriate for Nunavut. They agreed with moving the compliance point from the lagoon to the end of wetland for the new Taloyoak lagoon after this meeting. The wastewater facility in Whale Cove is based on the same design concept, an impermeable lagoon followed by a wetland-treatment-area, as Taloyoak.  CGS supports continuing to monitor WHA-3 but this location should not be subject to effluent quality limits or act as the compliance point since it represents partially treated effluent. Results from WHA-3 would still be provided each year in the annual
CIRNAC	01	(R-01) CIRNAC recommends that GN-CGS engineers be responsible for carrying out the required annual inspection of all engineered facilities, as required by Part F, Item 4 of Water Licence 3BM-WHA2126, with the assistance of municipal staff who carry out routine visual inspections of the facilities and report potential issues to GN-CGS engineers in a timely manner.	The GN-CGS is not the license holder and should not be subject to terms and conditions, nor assigned responsibilities under the Municipality of Whale Cove's water license. GN-CGS technical staff intend to continue participating in the annual CIRNAC inspections but cannot act as an expert or authority on the infrastructure under the water license. The GN-CGS will continue to provide technical assistance for any issues with the infrastructure under this water license that are identified by any individual. The GN-CGS will continue to prepare and submit the Annual Reports for the water license on behalf of the Municipality in a timely manner.
CIRNAC	02	CIRNAC recommends that prior to the completion of the proposed facility upgrade, the licensee make additional efforts in managing hazardous waste in the facilities and mitigating seepage from the facilities.	The licensee agrees.

CIRNAC	03	CIRNAC recommends that prior to the	The signed and stamped documents were requested from the engineering firm that
		completion of the proposed facility upgrade, the	originally prepared them. They provided this response:
		licensee make additional efforts in managing	"the "record drawings" which were prepared by EXP based upon contractor supplied
		hazardous waste in the facilities and mitigating	information – the drawings remain unsealed because the information on the drawings
		seepage from the facilities.	was not gathered under the direct supervision and control of EXP – this practice is
			consistence with the recommendations of NAPEG:
			Record Drawings (Revisions): Record drawings that have been revised from final
			drawings and require input by/or preparation under the direct supervision and control
			of an engineer must be stamped.
			As-built drawings prepared by others not under the direct supervision of a professional
			must not be stamped"
			EXP did however stamp and sign the Issue-for-Construction drawings for the lagoon
			design.