

Nunavut Water Board

October 26, 2020

Re: Licence No: 3AM-ARV1016, Type “A”; Hamlet of Arviat; 2020 Completeness Check

To Whom It May Concern:

Thank you for your review of the 2020 Completeness Check Report for 3AM-ARV1016. Please see the below table with response and action items to be undertaken by the Hamlet and CGS.

No.	Intervener Recommendation / Concern	Deadline	Response by CGS
Crown-Indigenous Relations and Northern Affairs (CIRNA)			
1	Upgrades to Sewage Lagoon: <ul style="list-style-type: none"> If the feasibility study for an upgraded Wastewater Treatment Lagoon has been completed, and if it can be made available for technical review How they plan to manage sewage and when they can provide that in an updated Sewage Treatment Facility O&M Plan 	November 9, 2020	<ul style="list-style-type: none"> Feasibility study completion was delayed due to COVID19, expected CGS can provide the completed study by January 8, 2021. The new reservoir was sized for 20-year horizon, the increases on a yearly basis will be much lower. A new lagoon is required and is in feasibility study stage, estimated completion as indicated above.
2	Sewage Lagoon Effluent Discharge Criteria <ul style="list-style-type: none"> Provide a rationale for lowering discharge criteria limits by specifying which Dalhousie studies they are referring to and explaining how these studies are applicable to the system in Arviat, including whether the proposed criteria consider the treatment occurring in the wetland adjacent to the lagoon 	November 9, 2020	<ul style="list-style-type: none"> Technical documents completed by Dalhousie University Centre for Water Resources Studies, PlusArctic and EXP Services Inc. have been sent to NWB The research reviewed lagoon and wetland systems in NU, and recommendations are based on drainage to a well-flushed marine environment. The monitoring stations would remain in the same locations until a new/upgraded site is constructed.
3	Upgrades to Solid Waste Facilities	November 9, 2020	<ul style="list-style-type: none"> Feasibility study completion was delayed due to COVID19, expected



Department of Community and Government Services
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Environment and Climate Change Canada (ECCC)

	include reduction targets for ammonia and metals		
3	CBOD and TSS Effluent Quality Criteria <ul style="list-style-type: none"> • Provide the Dalhousie Study for which the newly proposed EQC are based for review and consideration as part of the water license process 	November 9, 2020	<ul style="list-style-type: none"> • Forwarded to NWB
4	Capacity of the Sewage Lagoon <ul style="list-style-type: none"> • Provide information on lagoon capacity and the ability to contain increased volumes of sewage as per the increased water use request • Information of how the increase in effluent reporting to the sewage lagoon may impact retention time and the ability to meet effluent quality criteria; and • Information on options for increasing the capacity of the sewage lagoon, and potentially increasing retention time and treatment, such as desludging. 	November 9, 2020	<ul style="list-style-type: none"> • The requested water resupply quantity is for the 20 year design horizon, the yearly increase will be much smaller and incremental in nature. The new lagoon will be designed for the 20 year design horizon capacity. • The new lagoon will be constructed within 2-3 years which will alleviate under capacity issues associated with the current lagoon. • The Hamlet was unable to complete desludging this season due to the short notice and short season. With the feasibility study should come an expected timeline for the construction of the new lagoon and it will be determined if desludging should take place next summer.
5	Sewage Disposal Facility Report <ul style="list-style-type: none"> • ECCC recommends that the Sewage Disposal Facility Report, including the Sludge Management Plan, be provided for review within the water license process to improve understanding of the existing facility. This should include updates based on any 	November 9, 2020	<ul style="list-style-type: none"> • All updated plans to be updated and provided by March 1, 2021



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Nunavut iluqatigiingniq
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	improvements or alterations that may have occurred since submission of the original plan		
6	Updates to Management Plans <ul style="list-style-type: none">• Provide updated or missing operation and management plans according to changes and improvements that may have occurred during the license term	November 9, 2020	<ul style="list-style-type: none">• All plans to be updated and provided by March 1, 2021

If there are any questions or concerns, please contact me at scollins@gov.nu.ca or (867)645-8176.

Sincerely,

Sarah Collins P. Eng
Municipal Planning Engineer
Community and Government Services
Government of Nunavut