

בתריה ולרבים האיריקיים השתרים בתריה ולביל Department of Community and Government Services
Nunalingni Kavamatkunnilu Pivikhaqautikkut
Ministère des Services Communautaires et gouvernementaux

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
Crov	n-Indigenous Relations and Northern	Affairs (CIRNA)	
1	Upgrades to Sewage Lagoon:  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> <li>Feasibility study completion was delayed due to COVID19, expected CGS can provide the completed study by January 8, 2021.</li> <li>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.</li> </ul>
2	Sewage Lagoon Effluent Discharge Criteria  • 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> <li>Technical documents completed by Dalhousie University Centre for Water Resources Studies, PlusArctic and EXP Services Inc. have been sent to NWB</li> <li>The research reviewed lagoon and wetland systems in NU, and recommendations are based on drainage to a well-flushed marine environment.</li> <li>The monitoring stations would remain in the same locations until a new/upgraded site is constructed.</li> </ul>
3	Upgrades to Solid Waste Facilities	November 9, 2020	Feasibility study completion was delayed due to COVID19, expected



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	If the feasibility study for		CGS can provide the completed
	an upgraded Solid Wase Management Site has been completed, and it can be made available for technical review  • When they can provide an updated Solid Waste Facility O&M Plan that reflects current operations  • If they foresee upgrading the existing facility or building a new facility within the 10-year renewal requested. If so, further information of tentative timelines would be helpful if available		study by January 8, 2021.  The updated O&M plan is underway. Will be forwarded March 1, 2021.  The feasibility study is currently addressing a new/upgraded facility. Timelines on construction of this facility are currently unknown.
4	Hydrocarbon Impacted Soil	November 9,	Hydrocarbon contaminated soil is
	<ul> <li>How they are currently managing hydrocarbon contaminated soil</li> <li>If they foresee building a landfarm facility within the 10-year renewal requested. If so, further information of tentative timelines would be helpful if available</li> </ul>	2020	managed by shipping soil during sealift season  There is no plan to build a landfarm over the next 10 years
5	<ul> <li>Pumping Rate from Wolf Creek</li> <li>Their pumping rate from Wolf Creek</li> <li>The typical number of hours and days they pump in a month; and</li> <li>Which months the pumping occurs</li> </ul>	November 9, 2020	Estimated 34L/s, 24 hrs/day, Mid July-mid September (approximate, weather and equipment operation dependent). This is based on current pumping configuration.
6	<ul> <li>'As-Built' plans for the water treatment plant and new cell</li> <li>Operation and Maintenance procedures for water pumping operations to fill the reservoirs from Wolf Creek; and</li> </ul>	November 9, 2020	<ul> <li>As-built drawings not received from contractor. Will send immediately once received.</li> <li>The updated O&amp;M plan is underway. Will be forwarded March 1, 2021.</li> <li>Unclear what this is referring to. There is no discharge from the WTP, all goes to the waste tank. This may be the overland intake, or the</li> </ul>



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	<ul> <li>Information on what is discharged through the overland discharge pipe</li> </ul>		resupply pipe from Wolf Creek. Clarification required.
7	Environmental Emergency Contingency Plan  • Provide an updated Environmental Emergency Contingency Plan	November 9, 2020	The updated Environmental     Emergency Contingency plan is     underway. Will be forwarded March     1, 2021.
8	Program and Quality Assurance/Quality Control Plan  • Comment on when they could provide an updated Environmental Monitoring Program and Quality Assurance/Quality Control Plan.	November 9, 2020	The updated Monitoring plan is underway. Will be forwarded March 1, 2021.
9	Reclamation of Old Sewage Lagoons  Clarify if the old sewage lagoons have been restored.	November 9, 2020	The old sewage lagoon has not been cleaned or reclaimed. However, the Hamlet received approval from the Federal Government to decant the lagoon once samples were sent in for testing.
Envi	ronment and Climate Change Canada (	ECCC)	
1	Feasibility Studies  • Provide the feasibility studies for the Solid Waste and Wastewater Lagoon for review and consideration as part of the water license renewal process  • A discussion of projected timelines for construction of these new facilities, and proposed plans for decommissioning of the existing facilities	November 9, 2020	<ul> <li>Feasibility study completion was delayed due to COVID19, expected CGS can provide the completed study by January 8, 2021.</li> <li>Projected timeline for new/upgrade lagoon is 2022 construction, solid waste site is not yet determined.</li> </ul>
2	Treatment Targets/Current Non-Regulated Parameters  • Identify treatment targets for the new wastewater treatment system, and	November 9, 2020	This will be provided in the feasibility study.



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	include reduction targets		
	for ammonia and metals		
3	CBOD and TSS Effluent Quality	November 9,	Forwarded to NWB
	Criteria Criteria	2020	Torwarded to NWB
	Provide the Dalhousie	2020	
	Study for which the newly		
	proposed EQC are based		
	for review and		
	consideration as part of the		
	water license process		
4	Capacity of the Sewage Lagoon	November 9,	The requested water resupply
	Provide information on	2020	quantity is for the 20 year design
	lagoon capacity and the		horizon, the yearly increase will be
	ability to contain		much smaller and incremental in
	increased volumes of		nature. The new lagoon will be
	sewage as per the		designed for the 20 year design
	increased water use		horizon capacity.
	request		The new lagoon will be constructed
	<ul> <li>Information of how the</li> </ul>		within 2-3 years which will alleviate
	increase in effluent		under capacity issues associated with
	reporting to the sewage		the current lagoon.
	lagoon may impact		<ul> <li>The Hamlet was unable to complete</li> </ul>
	retention time and the		desludging this season due to the
	ability to meet effluent		short notice and short season. With
	quality criteria; and		the feasibility study should come an
	<ul> <li>Information on options for</li> </ul>		expected timeline for the
	increasing the capacity of		construction of the new lagoon and it
	the sewage lagoon, and		will be determined if desludging
	potentially increasing		should take place next summer.
	retention time and		
	treatment, such as		
	desludging.		
5	Sewage Disposal Facility Report	November 9,	All updated plans to be updated and
	• ECCC recommends that	2020	provided by March 1, 2021
	the Sewage Disposal	2020	provided by Willen 1, 2021
	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		



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	improvements or alterations that may have occurred since submission of the original plan		
6	Updates to Management Plans  Provide updated or missing operation and management plans according to changes and improvements that may have occurred during the license term	November 9, 2020	All plans to be updated and provided by March 1, 2021

If there are any questions or concerns, please contact me at <a href="mailto:scollins@gov.nu.ca">scollins@gov.nu.ca</a> or (867)645-8176.

Sincerely,

Sarah Collins P. Eng

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Municipal Planning Engineer

Community and Government Services

Government of Nunavut