

Nunavut Water Board

October 26, 2020

## Re: Licence No: 3BM-REP1520 – KIVALLIQ REGION – HAMLET OF NAUJAAT – WATER LICENSE AMENDMENT AND RENEWAL

To Whom It May Concern:

Thank you for your review of the 2020 Annual Report for 3BM-REP1520 Completeness Check. Please see the below table with response and action items to be undertaken by the Hamlet and CGS.

No	Intervener Recommendation /	Deadline to Respond by	Response by CGS
•	Concern	and Provide Outstanding Information	
Crov	wn-Indigenous Relations and Northe	ern Affairs (CIRNA)	
1	<ul> <li>Clarify the scope of the application and the expected timelines for document submitting</li> <li>Plans for the new landfill; and</li> <li>Final closure plan for the existing landfill</li> </ul>	Due November 5, 2020	<ul> <li>The application is for renewal and amendment of the 3BM-REP1520 water licence, expired on April 8, 2020. The amendment includes a pre-treatment lagoon for sewage disposal, and amendment of CBOD and TSS to 100 mg/L and 120 mg/L, respectively.</li> <li>Feasibility study for new landfill will not likely take place until 2021/2022, with construction after that. This is not included in this licence.</li> <li>Existing landfill not currently planned to be closed.</li> </ul>
2	Compliance Plan	Due November 5, 2020	Require clarity on this
	Review the Compliance  Plan and match specific		question.
	Plan and match specific plans to corresponding license conditions		



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3	Water Meter for Recording	Due November 5, 2020	Noted This will be passed
3	Wastewater/Sewage Discharge	Due November 3, 2020	Noted. This will be passed  on to the consultant operantly.
	• Include a condition for		on to the consultant currently
			completing the design.
	recording sewage		
	lagoon outflow volumes		
	using a meter, in the		
4	approved water license	D N15 2020	N . 1 X 2010 1 1
4	2019 Annual Report	Due November 5, 2020	Noted. In 2019 only a single
	Monitoring Results		sampling event was
	• Provide all of the		completed by CGS during
	required monitoring		the site visit.
	results, or provide		
	rationale for why results		
	are not available for		
	other monitoring		
	stations	D N 1 5 2020	
5	Spill Follow-Up Action	Due November 5, 2020	Please clarify this question.
	• Provide details of the		Is this in reference to the
	follow-up actions taken		2019 annual report? The
	for each event, or direct		documented spills are from
	CIRNAC to where this		the spills data base.
	information can be		
	located		
6	Geothermal Analysis	Due November 5, 2020	A geothermal study was
	<ul> <li>Clarify whether the</li> </ul>		done as part of the 2013
	indicated need for a		lagoon design, updated to
	geothermal analysis has		2020 when the design was
	been met with an		updated. This has been sent
	analysis .If so, CIRNAC		to NWB for your review.
	recommends that the		• Furthermore, CGS has
	results of the analysis be		engaged a third part review
	provided for		of the Naujaat Lagoon
	review/reference. If not,		Design, currently underway
	CIRNAC recommends		by Wood Group. This will be
	that the rationale for its		provided to NWB by January
<u> </u>	exclusion be provided		30, 2021, once complete.
7	Construction Mitigation	Due November 5, 2020	This will be requested from
	Techniques		the consultant.
	Clarify which		
	construction mitigation		
	techniques they plan to		
	implement during the		
	construction of the		
1	sewage lagoon		



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8	Sludge Solids Removal from	Due November 5, 2020	• O&M is included in the 2020
	Lagoon	·	Design Update report A
	<ul> <li>Provide the Sewage</li> </ul>		compiled O&M plan can be
	Disposal Facility O&M		completed and issued for
	manual for review prior		review by March 1, 2021.
	to a technical meeting		
9	Management Plans	Due November 5, 2020	<ul> <li>Updates to these plans are</li> </ul>
	<ul> <li>Provide updates to</li> </ul>		underway and will be
	relevant management		submitted prior to March 1,
	plans (including Spill		2021.
	Contingency Plan, OM		
	Manual for sewage		
	facility, and A&R		
	Plans), and clarify		
	which versions of all		
	required plans have been approved and are		
	in use		
10	Discharge Criteria and	Due November 5, 2020	The effluent criteria are to
10	Effluent Requirements	Due November 3, 2020	CBOD and TSS, as 100
	<ul><li>Clarify the effluent</li></ul>		mg/L and 120 mg/L,
	objectives they propose		respectively. Technical
	for an amended license,		documents completed by
	and provide clear		Dalhousie University Centre
	rationale for the		for Water Resources Studies,
	proposed effluent		PlusArctic and EXP
	objectives based on the		Servicecs Inc. sent to NWB
	results from studies		
	conducted by Dalhousie		
	University and ECCC		
11	<b>Proposed Mode of Operation</b>	Due November 5, 2020	• This is included in the 2020
	<ul> <li>Clarify whether the</li> </ul>		Design Update report,
	proposed method of		recommended by exp that the
	operation and decanting		lagoon will store effluent all
	the sewage Lagoon		year, with an emergency
			overflow. It will actively be
			pumped out between August
			<ul> <li>September each summer.</li> <li>Exfiltration was not</li> </ul>
			recommended in order to
			maintain integrity of the
			berm.
	Environment and Climate Change	Canada (ECCC)	ocini.
	211, If offinion, and Chinate Change	Canada (ECCC)	



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1	Calid Wests Facility	Dua Navambar 5, 2020	- M-4-4 DL 211.1
1	• Develop and submit an abandonment and reclamation plan for the current waste site for review prior to the current site's closure, and provide an updated Solid Waste Facility Management Plan outlining current measures being taken to manage waste volumes over the capacity of the facility	Due November 5, 2020	<ul> <li>Noted. Plan will be submitted prior to abandoning the site.</li> <li>Updated O&amp;M plan is underway, to be submitted by March 1, 2021.</li> </ul>
2	Plan  Develop an updated Sewage Facility Management Plan for the upgraded sewage management facility. This should include general operations and maintenance procedures, monitoring requirements and methods and sludge management	Due November 5, 2020	This will be requested from the consultant.
3	• Complete a comparison of recent sewage influent quality versus quality at the end of the wetland to confirm assumptions about treatment capacity of the existing natural wetland system	Due November 5, 2020	• A new primary treatment lagoon has been designed and will be constructed in 2021-2022. The design expectations for treatment of the new facility is provided in the 2020 Design Update Report.
4	Proposed Updates to Effluent Quality Criteria  • Recommends that the current EQC for cBOD and TSS be retained, as these are regularly being	Due November 5, 2020	Documents prepared by     Dalhousie University Centre     for Water Resources Studies,     PlusArctic, and EXP     Services inc. have been sent     to NWB for review to justify



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		T	
	met, noting that the system improvements are expected to improved effluent quality		the proposed requested changes. CGS is requesting that effluent parameters stipulated on licenses be justified by the most comprehensive research available on wastewater systems in the North. The lagoon and wetland system are still expected to achieve the effluent quality as outlined in the 2020 Design Update Report
5	<b>Effluent Monitoring Locations</b>	Due November 5, 2020	The 2020 Design Update
	and Frequency		report for the upgraded
	<ul> <li>Supportive of the</li> </ul>		wastewater system
	inclusion of additional		recommends sampling
	monitoring stations to		locations and frequencies,
	characterize influent		including an annual sample
	quality from the truck		from the truck discharge.
	discharge as well as		CGS and the Hamlet are in
	effluent quality in the		support of this addition to the
	lagoon prior to entering		sampling requirements of the
	the wetlands		licence.

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

O. Collis

Municipal Planning Engineer

Community and Government Services

Government of Nunavut