

### Review Comment Table

<b>Board:</b>	GLWB
<b>Review Item:</b>	Town of Inuvik - Draft Water Licence
<b>File(s):</b>	<a href="#">G06L3-001</a> <a href="#">G17L3-001</a>

### Comment Summary

Environment and Climate Change Canada: Gabriel Bernard-Lacaille				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
1	General	<p><b>Comment</b> ECCC has reviewed in accordance with its mandate and doesn't have any comments at this time.</p> <p><b>Recommendation</b> Not applicable.</p>		
GNWT - ENR: Central Email GNWT				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
11	General File	<p><b>Comment</b> (<a href="#">doc</a>) ENR Letter with Comments and Recommendations</p> <p><b>Recommendation</b></p>		
1	Topic 1: Part B "General Conditions"	<p><b>Comment</b> To be consistent with other Water Licences issued in the Northwest Territories, the Gwich'in Land and Water Board (the Board) may consider adding or adjusting the following definitions within Part A - Scope and Definitions of Inuvik Water Licence:            Construction - any activities undertaken to construct or build any components of, or associated with, the undertaking. Discharge - the direct or indirect release of any Water or Waste to the Receiving Environment. Water Use - a use of Water as defined by section 1 of the Act.</p> <p><b>Recommendation</b> 1) ENR recommends for the above definitions to be considered for use</p>		

		in Part A of the Town of Inuvik's Water Licence. (the Town) Water Licence.		
2	Topic 2: Part B "General Conditions"	<p><b>Comment</b> The Board may consider the following (or similar) condition used in other NWT Water Licences which may be added under Part B, of the Town's Water Licence: . All information submitted to the Board for this Licence shall a) Be submitted in a form acceptable to the Board; b) Be in accordance with the Mackenzie Valley Land and Water Board's March 2012, Document Submission Standards; and, c) Include a section within each submission which identifies where the pertinent requirements of the Licence are addressed. . The Licensee shall take every reasonable precaution to protect the environment.</p> <p><b>Recommendation</b> 1) ENR recommends that the above-mentioned general conditions be included in Part B of the Town's Water Licence.</p>		
3	Topic 3: SNP Monitoring Program	<p><b>Comment</b> ENR notes that the SNP monitoring program for the Town consists of nine (9) SNP monitoring stations, of which five (5) were established for monitoring of the Sewage Lagoon. SNP monitoring station 0036-8 located at the Twin Lakes was established as a reference/background site for the Sewage Lagoon. However, ENR considers this reference/background sampling to be infrequent enough to be used as a control for areas downstream of the lagoon facility. In addition, the location of this SNP site may not be optimal to represent reference/background conditions as it is located at a lower elevation and surface runoff and groundwater flows from the Town may impact these waters. There are currently two SNP 0036-3 descriptions within the SNP section. ENR understands the</p>		

		<p>second description is to provide guidance in times of an emergency decant. However, as Inuvik Sewage Disposal Facilities operates under a year around continuous discharge, the second description in its current form is confusing. The GLWB should consider clearly identifying the "emergency only" aspect of this monitoring station further within this sub-section of the Surveillance Network Program, as well as differentiating this station as "SNP 0036a".</p> <p><b>Recommendation 1)</b> ENR recommends that the Board should reconsider the need for and validity of SNP 0036-8 as a reference/background monitoring station.</p>		
4	None	<p><b>Comment</b> None</p> <p><b>Recommendation 2)</b> ENR recommends that the SNP descriptions be adjusted to clearly identify the stations that will only be used during emergencies.</p>		
5	Topic 4: SNP Section â€œ Part C: Stations Descriptions and Monitoring Requirements	<p><b>Comment</b> Part C of the SNP sampling section indicates each SNP sampling station number with their associated location, sampling frequency, sampling parameters and rationale for monitoring. ENR notes that sampling frequency details are currently missing for SNP 0036-4, SNP 0036-5, SNP 0036-6, SNP 0036-7, SNP 0036-8 and SNP 0036-9.</p> <p><b>Recommendation 1)</b> ENR recommends sampling frequencies to be specified for all SNP monitoring stations.</p>		
6	Topic 5: Type of Waste Accepted at the Waste Management Facilities	<p><b>Comment</b> Section 2.4.3 of the Solid Waste Disposal Facilities Operation and Maintenance Plan for the specifies, states "The landfill exists for the management of all solid wastes ordinarily generated within Inuvik; principally the domestic garbage generated by residential, commercial and institutional Buildings.". It also states that any other waste not generally of</p>		

		<p>domestic character considered not to be suitable for disposal, for any reason, will be turned away. Inuvik's Water Licence renewal application further specifies that "Inuvik obtains assurance from all waste hauling contractors and generators discharging into the lagoon from trucks that wastewater will be restricted to domestic origin and character, not contaminated by solvents, petroleum products, glycol, drilling fluids, or any other industrial waste of any sort in concentrations exceeding what would ordinarily be expected from domestic operations (section 2.3 - p. 18 of 119)." ENR notes to address the above restrictions, other NWT Water Licences include a term and conditions that states: "Sewage and solid Waste from industrial, commercial and institutional operators working outside of the local government boundaries of Inuvik shall not be accepted at the Waste Disposal Facilities, unless otherwise authorized in writing by an Inspector."</p> <p><b>Recommendation</b> 1) ENR recommends the Board consider including the above, or similar, condition(s) in Part D of the draft Water Licence, and that the conditions refer to both Sewage Disposal Facilities and Solid Waste Facilities.</p>		
7	Topic 6: Water Treatment Plant "Sludge Characterization and Management"	<p><b>Comment</b> The renewal application specifies that Inuvik new East Channel Water Treatment Plant (WTP) was completed in 2016. This document also specifies in section 2.1.2, that the WTP Operation and Maintenance Plan will be provided once the WTP is completed. ENR understands that WTP wastewaters report directly to the Inuvik Sewage Disposal Facilities, but is unclear if the WTP sludge does as well. ENR considers the WTP sludge to be considered a Non-sewage Waste. ENR</p>		

		<p>notes that sludge should be sampled prior to disposal within the lagoon.</p> <p><b>Recommendation 1)</b> ENR recommends that proper characterization of the WTP sludge be completed if sludge management practices include disposal at the sewage lagoon. This characterization should be used to determine appropriate disposal options and/or methods for this waste.</p>		
8	Topic 7: Soils and Snow Remediation at the Solid Waste Facility	<p><b>Comment</b> Section 2.4.7 on Wastes Undergoing Treatment specifies that Inuvik has separate areas in its landfill for soils and snow contaminated with oil. Soils contaminated with oil are "landfarmed" and snow contaminated with oil is kept in diked containment until it melts in spring. Oil coming to the surface from the diked snow is bottled up using oil-absorbent pads, and meltwater is run through a separator - then released via a discharge line off site. ENR notes that there are no existing provisions within the Town's Water Licence to address these activities and ensure they are conducted appropriately. This has been a problem with these types of activities and existing Licences in other jurisdictions within the Mackenzie Valley. ENR understands that KBL may be offering remediation services in Inuvik in the near future. ENR is supportive of having a dedicated third party with its own Licence to operate such remediation sites to reduce the burden on the Town.</p> <p><b>Recommendation 1)</b> ENR supports contaminated soils and water to be properly treated at an approved facility, rather than being stored/treated at the municipal Solid Waste Facility.</p>		
9	None	<p><b>Comment</b> None</p> <p><b>Recommendation 2)</b> ENR recommends that</p>		

		in the interim, any runoff pathways originating from these remediation sites to be traced in order to assess if they are captured by the existing SNP stations (i.e. SNP 0036-4 and/or SNP 0036-5 located downstream from the Solid Waste Facility).		
10	None	<b>Comment</b> None <b>Recommendation</b> 3) ENR recommends the Town provide the details on volumes of material reclaimed and the duration of past remediation practices in order to assess if groundwater monitoring may be required.		
<b>Gwich'in Renewable Resources Board: Janet Boxwell</b>				
<b>ID</b>	<b>Topic</b>	<b>Reviewer Comment/Recommendation</b>	<b>Proponent Response</b>	<b>Board Staff Response</b>
1	General File	<b>Comment</b> ( <a href="#">doc</a> ) GRRB Cover <b>Recommendation</b>		
2	PART C: Surveillance Network Program (SNP) station descriptions and monitoring requirements	<b>Comment</b> GRRB staff support an additional monitoring station at Boot Creek upstream from Boot Lake (SNP#9), prior to July 01, 2017 This would be in addition to SNP #4 and would ensure adequate data collection to monitor for potential seepage of contaminants and runoff from the landfill during dry periods when SNP #4 is not flowing. <b>Recommendation</b> None		
3	Sewage effluent criteria	<b>Comment</b> GRRB staff support the addition of Total Petroleum Hydrocarbons (TPH) to the list of parameters for SNP monitoring around the landfill. This is especially relevant given the proposed soil treatment facility that will be accepting hydrocarbon-contaminated soils and snow for remediation. <b>Recommendation</b> None		
4	Solid Waste Operation and Maintenance Plan:	<b>Comment</b> GRRB staff recommend that a Hazardous Waste Management Plan be submitted with the O/M plan which describes how hazardous materials shall be contained in		

		such a manner as to minimize the potential for migration of contaminants into any waters, to the satisfaction of an Inspector. <b>Recommendation</b> None		
5	Bear management	<b>Comment</b> GRRB staff support the condition that a Solid Waste Disposal Fencing Plan be submitted within 2 years and suggest that it would be helpful going forward for a small working group of staff representatives from the boards, town and ENR to address community messaging that can help with bear management concerns and keep track of actions taken. <b>Recommendation</b> None		
6	Permafrost	<b>Comment</b> GRRB staff recommend the Town of Inuvik (TOI) monitor permafrost temperature and active layer depths in order to establish baseline data and to detect and respond to changes rapidly. <b>Recommendation</b> None		
7	Climate Change	<b>Comment</b> GRRB staff recommend the TOI develop a plan for climate change preparation and adaptation that proactively considers changes in permafrost, temperatures, precipitation, and other environmental conditions that may affect the operation and maintenance of infrastructure in future. Impacts to the operations of the landfill and the sewage lagoon system due to climate change may ultimately affect fish, forests and wildlife in the region. <b>Recommendation</b> None		
8	Conditions applying to spill contingency planning	<b>Comment</b> GRRB staff support the proposed timeline and schedule for the Town of Inuvik to provide an updated Spill Contingency Plan in accordance with the MVLWB Spill Contingency Plan Template for Municipal Water Licences, within 18 months <b>Recommendation</b> None		

9	Timelines	<p><b>Comment</b> GRRB staff support proposed timelines for the provision of documentation requested within the water licence (ex. Spill Contingency Plan, Hazardous Waste Management Plan, Climate Change Adaptation Plan, Solid Waste Disposal Fencing Plan).</p> <p><b>Recommendation</b> None</p>		
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**National Energy Board: John Korec**

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
1	Part H, 4 a)	<p><b>Comment</b> With regard to Part H, 4 a): <i>Report all Spills immediately via the (24) Hour NWT Spill Report Line (867) 920-8130 in accordance with the instructions contained in the NT-NU Spill Report Form</i>, I'm not sure that everyone gets the instruction sheet that sometimes accompanies the Spill Report Form.</p> <p><b>Recommendation</b> If the Town of Inuvik does not have the instructions, it might be worthwhile to re-phrase the condition to: <i>Report all Spills immediately via the (24) Hour NWT-Nunavut Spill Report Line (867) 920-8130 in accordance with the instructions contained in the NT-NU Spill Report Form and the Spills Working Agreement, Appendix A, Schedule 1 – Reportable Quantities for NT-NU Spills.</i></p>		

**Town of Inuvik: Grant Hood**

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
1	None	<p><b>Comment</b> 1. Please confirm if geometric mean to be replaced by arithmetic mean for Fecal Coliform parameter</p> <p><b>Recommendation</b> n/a</p>		
2	None	<p><b>Comment</b> 2. Limit of 135 mg/L for CBOD parameter is acceptable in lieu of monitoring to determine site specific BOD5/CBOD ratio</p> <p><b>Recommendation</b> n/a</p>		



3	None	<p><b>Comment 3.</b> Recommend that Ammonia testing requirement be for unionized ammonia (i.e. testing completed and reported per WSERs) for better comparison with southern jurisdictions</p> <p><b>Recommendation</b> n/a</p>		
4	None	<p><b>Comment 4.</b> Please confirm annual reports are all that are required for submission and that quarterly reports will no longer be required</p> <p><b>Recommendation</b> n/a</p>		
5	None	<p><b>Comment 5.</b> Discussion of climate change preparation and adaptation is appropriate within the context of the various operations and maintenance plans. It is anticipated that discussion of this topic will, at this point, consist primarily of monitoring recommendations w.r.t. specific facilities within the individual plans.</p> <p><b>Recommendation</b> n/a</p>		
6	None	<p><b>Comment 6.</b> In Part D, 1., please revise wording of "The Licensee shall ensure.." to something else such as "The Licensee shall make all reasonable efforts..". The use of the word "ensure" implies a broad guarantee that may include events or conditions outside of the Licensee's control.</p> <p><b>Recommendation</b> n/a</p>		