



GWICH'IN LAND AND WATER BOARD
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STAFF REPORT

Prepared by Helga Harlander August 7, 2013

Application #	G13L3-001 (renewal of G08L8-002)	Type	Type 'B' Water Licence
Activity	Water use and wastewater discharge		
Location	Gwich'in Camp – 10.4 km south of Inuvik		
Proponent	Gwich'in Tribal Council		

Application Summary

GTC is applying for renewal of the water licence for the Gwich'in Camp. (The original water licence was issued in 2008 for a 5 year term.) The activities include withdrawal of water from the East Branch of the Mackenzie River (June through September) and discharge of treated wastewater to land during any period the camp is in operation. GTC proposes to truck potable water to the camp during the winter.

Process Timeline

- July 12, 2013 - application received
- July 12, 2013 - application sent to review organizations
- July 31, 2013 - deadline for comments
- August ?, 2013 - Board meeting

Discussion

- The file number for the water licence was changed from G08L8-002 to G13L3-001. 'L3' in the file name indicates a 'municipal undertaking'. Since the nature of the activities for a camp are similar to those of a municipality (water withdrawal for domestic use and treatment/disposal of wastewater), the licensing criteria for both are listed in schedule VI of the Northwest Territories Waters Regulations.
- Since a preliminary screening has been conducted in 2008, the board does not have to conduct a preliminary screening prior to making a decision on this application.
- The level of activity at the camp has been very low for the past years. Current activities could actually be carried out without a water licence. GTC has decided to apply for renewal of the water licence to maintain the option of using the facilities to capacity on short notice. Higher

activity level has been considered when determining the proposed allowable water use of 2000 cubic meters per year.

- The wastewater treatment unit at the camp is designed to treat the sewage to a very high standard. Effluent quality should be well below the proposed effluent quality criteria. (Exceedance of the proposed effluent quality criteria would indicate that the equipment is not functioning properly and needs to be serviced.)
- A land use permit for fuel storage at the Gwich'in camp was issued in 2008 as well. This permit has been extended and is now due to expire in 2015. At that point GTC can apply for another five year permit, which can be extended for two more years (until 2022). The reason for mentioning this is that the proposed nine year term for the water licence is related to this. With a nine year term, the water licence and the future land use permit would be due to expire the same year.

Recommendation

- Grant Water Licence G13L3-001, subject to the proposed terms and conditions, to the Gwich'in Tribal Council for a nine year term.

Please document the reasons for the decision so I can prepare 'Reasons for Decision' for your review and signature at your next meeting.

Table 1 Summary of review comments for land use permit applications G13L3-001

Organization (Date comments received)	Comments	Disposition of comments (Water Licence Part and Condition # e.g. Part B, Conditions 5 = B5)
GTC/GLR	no submission	no action required
GSCI	no submission	no action required
GRRB	no submission	no action required
GLUPB	no submission	no action required
Ehdiithat DGO	no submission	no action required
Ehdiithat RRC	no submission	no action required
Gwichya DGO	no submission	no action required
Gwichya RRC	no submission	no action required
Nihtat DGO	no submission	no action required
Nihtat RRC	no submission	no action required
Tetlit DGO	no submission	no action required
Tetlit RRC	no submission	no action required
Town of Inuvik	no submission	no action required
Environment Canada (July 31, 2013)	<p>Environment Canada (EC) has reviewed the information submitted to the Gwich'in Land and Water Board (GLWB) regarding the above-mentioned project proposal and is submitting comments on mitigation measures as well as other matters of importance to the project proposal as requested by the GLWB. EC's specialist advice is provided pursuant to the <i>Canadian Environmental Protection Act 1999</i>, the pollution prevention provisions of the <i>Fisheries Act</i>, the <i>Migratory Birds Convention Act</i>, and the <i>Species at Risk Act</i>.</p> <p>Gwich'in Tribal Council (the Proponent) is proposing to renew their water licence for their Gwich'in Wellness Camp facility. The camp contains five buildings and can house up to 50 people. The facility is generally used for meetings, conferences, seminars, and as a wellness/healing camp.</p> <p>Based on a review of the license application and supporting materials, EC provides the following comments for the GLWB's consideration:</p> <p>General</p> <ol style="list-style-type: none"> 1. All mitigation measure identified by the Proponent, and the additional measures suggested herein, should be strictly adhered to. This will require awareness on the part of the Proponents' representatives (including contractors) conducting operations in the field. EC recommends that all field operations staff be made aware of the Proponents' commitments to the mitigation measures and provided with appropriate advice/training on how to implement these measures. 2. Subsection 36(3) of the Fisheries Act specifies that, unless authorized by federal regulation, no person shall deposit or permit the deposit of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water. The definition of a deleterious substance (Subsection 34(1) of the Fisheries Act) includes "any water 	<p>-forward comments to GTC</p> <p>-forward comments to GTC</p>

	<p>that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water." Subsection 36(3) makes no allowance for a mixing or dilution zone at the point of deposit.</p> <p>3. Please note that according to the Aboriginal Affairs and Northern Development Canada's (AANDC) "Guidelines for Spill Contingency Planning" (April 2007), available at http://www.aadnc-aandc.gc.ca/eng/1100100024236/1100100024253, all releases of harmful substances, regardless of quantity are to be reported to the NWT / NU 24-hour Spill Line, (867) 920-8130 if the release is near or into a water body, is near or into a designated sensitive environment or sensitive wildlife habitat, poses imminent threat to human health or safety, poses imminent threat to a listed species at risk or its critical habitat, or is uncontrollable.</p> <p>4. EC recommends that the Proponent provide clarification on whether sewage wastes will be stored and transported back to Inuvik, as stated in the original application, or sewage wastes will be treated and disposed 25 metres east of the camp as stated in the renewal application.</p> <p>Wildlife and Species at Risk</p> <p>5. Paragraph 6(a) of the <i>Migratory Birds Regulations</i> states that no one shall disturb or destroy the nests or eggs of migratory birds. If active nests are encountered during project activities, the nesting area should be avoided until nesting is complete (i.e., the young have left the vicinity of the nest). The Proponent should consult the fact sheet "<i>Planning Ahead to Reduce Risks to Migratory Bird Nests</i>" available at: http://www.ec.gc.ca/paom-itmb/ for further guidance.</p> <p>6. EC recommends that food, domestic wastes, and petroleum-based chemicals (e.g., greases, gasoline, glycol-based antifreeze) be made inaccessible to wildlife at all times. Such items can attract predators of migratory birds such as foxes, ravens, gulls, and bears. Although these animals may initially be attracted to the novel food sources, they often will also eat eggs and young birds in the area. These predators can have significant negative effects on the local bird populations.</p> <p>7. Section 5.1 of the <i>Migratory Birds Convention Act</i> prohibits persons from depositing substances harmful to migratory birds in waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area.</p> <p>8. The following comments are pursuant to the <i>Species at Risk Act</i> (SARA). Subsection 79 (2) of SARA, states that during an assessment of effects of a project, the adverse effects of the project on listed wildlife species and its critical habitat must be identified, that measures are taken to avoid or lessen those effects, and that the effects need to be monitored. This section applies to all species listed on Schedule 1 of SARA. However, as a matter of best practice, EC suggests that species on other Schedules of SARA and under consideration for listing on SARA, including those designated as at risk by the Committee on the Status of Endangered</p>	<p>-forward comments to GTC</p>
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Wildlife in Canada (COSEWIC), be considered during an environmental assessment in a similar manner. The Table below lists species that may be encountered in the project area that have been assessed by COSEWIC as well as their current listing on Schedules 1-3 of SARA (and designation if different from that of COSEWIC). Project impacts could include species disturbance of habitat.

Terrestrial Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²
Eskimo Curlew	Endangered	Schedule 1	EC
Horned Grebe (Western population)	Special Concern	Pending	EC
Peregrine Falcon	Special Concern (<i>anatum-tundrius</i> complex ³)	Schedule 1	GNWT
Short-eared Owl	Special Concern	Schedule 1	GNWT
Rusty Blackbird	Special Concern	Schedule 1	GNWT
Grizzly Bear	Special Concern	Pending	GNWT
Wolverine (Western population)	Special Concern	Pending	GNWT
Collared Pika	Special Concern	Pending	GNWT

¹The Department of Fisheries and Oceans has responsibility for aquatic species.

²EC has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the Migratory Birds Convention Act (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency.

- For any Species at Risk that could be encountered or affected by the project, the proponent should note any potential adverse effects of the project to the species, its habitat, and/or its residence. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the Species at Risk registry at www.sararegistry.gc.ca for information on specific species.
- If Species at Risk are encountered or affected, the primary mitigation measure should be avoidance. The proponent should avoid contact with or disturbance to each species, its habitat and/or its residence.
- Monitoring should be undertaken by the proponent to determine the effectiveness of mitigation and/or identify where further mitigation is required. As a minimum, this monitoring should include recording the locations and dates of any observations of Species at Risk, behaviour or actions taken by the animals when project activities were encountered, and any actions taken by the proponent to avoid contact or disturbance to the species, its habitat, and/or its residence. This information should be submitted to the appropriate regulators and organizations with management responsibility for that species, as requested.
- For species primarily managed by the Territorial Government, the Territorial Government should be consulted to identify other appropriate mitigation and/or monitoring measures to minimize effects to these species from the project.
- Mitigation and monitoring measures must be taken in a way that is consistent with applicable species at risk recovery strategies and action/management plans.

	<p>9. Eskimo Curlew is designated as Endangered and listed on Schedule 1 of the SARA. Eskimo Curlew could potentially occur within the project area. However, there have been no reliable sightings of Eskimo Curlew since 1998 and the National Recovery Team for this species has determined that recovery is not feasible at this time. It is EC's view that, in light of its current status, there is no need for further action with respect to Eskimo Curlew. An appropriate mitigation and monitoring plan will be developed with the Proponent if it is established that this species does occur in the area.</p> <p>10. Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds and Species at Risk, but will not necessarily ensure that the proponent remains in compliance with the Migratory Birds Convention Act, Migratory Birds Regulations, and the Species at Risk Act. The proponent must ensure they remain in compliance during all phases and in all undertakings related to the project.</p>	<p>-forward comments to GTC</p> <p>-forward comments to GTC</p>
<p>Fisheries& Oceans Canada (July 17, 2013)</p>	<p>DFO has reviewed the above mentioned project for impacts to fish and fish habitat under the Fisheries Act. DFO has concluded that we have no concerns.</p>	<p>no action required</p>
<p>AANDC (July 26, 2013)</p>	<p>1. The close proximity of sewage discharge from the camp causes concerns regarding public exposure and the eventual flow of sewage once it is deposited to land. Once treated sewage is deposited, will it infiltrate or is there a risk of eventual flowing through the camp to the River. There should be a consideration for the local natural drainage conditions and how the treated sewage and waste will leave the area. To prevent public exposure, signs should be posted and there needs to be restricted access to the area where waste is deposited or may exist.</p> <p>2. There should be a contingency plan for sewage if and when it does not pass Water Licence discharge criteria, the ice road is inaccessible, or the sewage discharge line has a blockage and is unable to discharge. In the application and supporting documentation there are no plans mentioned for the storage of sewage if the above issues occur. There needs to be enough capacity to store the sewage until such time that it can be transported from the camp or discharged.</p> <p>3. Given past spill incidents that have occurred on the Mackenzie River by un-associated third parties, the past stability issues associated with the 35,000 L storage tank on the Gwich'in Camp site and the proximity of the camp to the river, additional emergency portable containment should be considered for the fuel storage and associated piping/structure. The presence of an Enviro-Tank on site is acceptable for fuel storage, however, seeing how the camp is upstream of the Town of Inuvik's water supply intake it would be important to provide alternate portable containment (such as portable spill containment pool or bermed collapsible containment) in the event of a spill, leak, and/or structural (tank, valve, pipe) failure. There should be included in the Contingency Plan procedures for the use of any portable containment items to stop leaks.</p> <p>Additionally it is recommended that there should be products available in the emergency spill kit that allow for the tank/pipe leaks or holes responsible for spills to be plugged up. Currently there are products on the market such as patches, putty or paste etc that would be good to include in the spill kit on site.</p> <p>4. The Gwich'in Camp Fuel Spill Contingency Plan discusses on page 9 of 13 Spill Reporting including that the size will determine how the spill is reported. It is important to note that any quantity of spill into water needs to be reported.</p> <p>5. In the Gwich'in Camp Fuel Spill Contingency Plan the contact numbers need to be updated as they are out of date. It is highly recommended that the Town of Inuvik Public Works/Water Treatment emergency numbers be added to the Emergency Contact List located in the Fuel Spill contingency Plan. This will ensure that in the event of an incident that all agencies/people can be contacted especially those that might be impacted downstream of the Gwich'in Camp.</p> <p>6. In the Water Licence Application on page 5 of 17 it states that testing will be undertaken on a monthly basis by the camp maintainer and by the Department of Public Health at the Inuvik Regional Hospital. While this testing is critical to camp operations it is important to note there are other sampling requirements for the Gwich'in Camp to adhere to.</p> <p>In the previous Water Licence G08L8-002 there was a Surveillance Network Program (SNP) that required sampling on a biweekly basis where sewage effluent discharged from the Sewage Treatment Plant would need to be sent for testing at an approved lab. This sampling did not occur on a regular basis if at all according to Inspection Reports and any sampling information sent to the Gwich'in</p>	<p>-condition B4 -forward comments to GTC</p> <p>-forward comments to GTC</p> <p>-Surveillance Network Program -forward comments to GTC</p>

	Land and Water Board and the AANDC Water Resource Officer. The SNP needs to be adhered to by the Gwich'in Camp. The lack of sampling and testing of treated sewage effluent is a concern and needs to be resolved to ensure the continued protection of the environment and monitoring the impacts of camp operations on the area. If there are concerns by the proponent with the SNP these should be addressed so as to ensure the optimal SNP for the Gwich'in Camp.	
MVLWB	no submission	no action required
MVEIRB	no submission	no action required
GNWT ENR (July 31, 2013)	<p>The Department of Environment and Natural Resources has reviewed the annual report at reference based on its mandated responsibilities under the <i>Environmental Protection Act</i>, the <i>Forest Management Act</i>, the <i>Forest Protection Act</i> and the <i>Wildlife Act</i> and provides the following comments and recommendations for consideration by the board.</p> <p>Topic: Environmental Impacts Comment(s): The Fuel Spill Contingency Plan is specific to fuel spills and does not incorporate the potential for the unintentional release of other hazardous substances that may be present (i.e. Glycol, Sewage, Nitrates, etc.). Throughout this entire document, it should be made clear that this Contingency Plan does not only apply to Fuels but also to all hazardous materials that are listed to be on site. This will allow the operators and site staff, who should be familiar with this plan to ensure the protocols are enacted if a release of ANY hazardous substance is released causing a spill. The Applicant must use the most up to date Spill Report Form located at http://www.enr.gov.nt.ca/_live/documents/content/NTNU_Interactive_Spill_Form.pdf when reporting a spill. Recommendations: The proponent should adhere to the following: 1) Use attached Bear Encounter Response checklist when calling ENR if problem with bears. (attached)</p> <p>Topic: Waste Management Plan Comment(s): Greater detail on the types of waste generated on-site should be included in the application. The chemicals associated with the water treatment plants are an example of missing substances that should be included;</p> <ul style="list-style-type: none"> • Double bagging of food waste is proposed as the method for storage, this will not create an air tight seal which may still pose a risk as a wildlife attractant; • Based upon the application it states that all waste fuel is transferred to an off-site receiver for use in its waste oil burner. No agreement of the transfer of hazardous waste was provided with the application. <p>The Guideline for the General Management of Hazardous Waste in the NWTⁱ defines hazardous waste and outlines the roles and responsibilities of generators, carriers, and receivers of hazardous waste in the NWT. The Department of Environment and Natural Resources (ENR), Environment Division (ED) registers generators, carriers, receivers, and tracks the disposal of hazardous waste generated in the NWT to registered receiving facilities on hazardous waste movement documents (manifest). The definition of Hazardous waste includes all waste materials that are 'dangerous goods' according to the Transportation of Dangerous Goods Regulationsⁱⁱ, and any additional waste of special concern that the Environment Division has determined hazardous until proven otherwise, including but not limited to:</p> <ol style="list-style-type: none"> a) incinerator waste and/or residuals (including bottom ash and fly ash); b) any liquid or solid wastes contaminated with refined petroleum products; c) bilge wastes; d) vehicle or vessel servicing wastes; e) drilling wastes; f) produced fluids (Glycol / Hydrocarbon / Inorganic Mixtures); g) tailings; and h) any hydrocarbon, lead, mercury or other forms of contaminated soils. <p>Hazardous wastes are not mentioned in the application. Based upon the application package it indicates that waste and sewage sludge will be shipped to Inuvik for disposal. Do not assume the use of NWT community facilities for the disposal of waste resulting from remote activities. Recommendation(s): 1) ENR recommends that the Proponent amend and submit for approval, it's Waste Management Plan (WMP). The WMP</p>	<p>-forward comments to GTC</p> <p>-forward comments to GTC</p>

	<p>must contain, at a minimum:</p> <ol style="list-style-type: none"> a) The identification of waste storage and transport mitigative measures to prevent wildlife attraction. Whether garbage is stored for the purpose of on-site or off-site disposal (i.e. road or air transport), it must be stored in an airtight sealed container to prevent wildlife from being attracted to odors. Storing refuse in a manner likely to attract wildlife is a violation of the <i>Wildlife Act</i>. Garbage stored in plywood boxes or in sheds develops a strong odour, which lingers for days. This odour will attract wildlife to the site; b) The WMP should include the identification of non-hazardous, hazardous, combustible and non-combustible wastes, as well as plans for waste segregation and the strategy for implementation; <ul style="list-style-type: none"> ▪ A detailed listing of waste treatment and disposal plans; ▪ Treatment, testing and disposal methods for all waste products proposed for release to the environment; ▪ A listing of expected waste types and quantities to be transported off-site; ▪ The identification of acceptable and alternate hazardous waste disposal plans and disposal facilities; and ▪ Alternate disposal options in the case that the referenced community's waste handling facility cannot accept the proposed and estimated waste types and quantities listed. <p>2) In addition to the above, the WMP must include information about the receiving community/ facility ensuring that its Water License authorizes the disposal of each waste stream. The WMP must demonstrate that the community has been consulted and has consented to the use of its infrastructure for disposal of the waste types and quantities in question, and the disposal of the wastes of question will not contravene the NWT <i>Environmental Protection Act</i> and related Regulations and Guidelines.</p> <p>3) Used Oil and Waste fuel shall be burned in an approved waste oil burner according to the <i>Used Oil and Waste Fuel Management Regulations</i>[#]. If it cannot be demonstrated that the used oil or waste fuel meets the criteria in the regulations (through laboratory analysis); it must be burned in an incineration device that is capable of meeting the emission limits. If the standards cannot be met, the waste fuel should be safely stored and transported in sealed containers and safely transported to a facility that is registered for recycling or disposal of used oil or waste fuel. The proponent should keep detailed records of all waste fuel transferred to its receiver, and include in its application approval from Northwind Industries (receiver) accepting all waste fuel from Site, and the application should include details about the Waste Oil Burner used for final disposal.</p> <p>4) Hazardous waste must be transferred using territorial waste manifests indicating the generator and the receiver. The <i>Guideline for the General Management of Hazardous Waste</i>¹ in the NWT defines hazardous waste and outlines the roles and responsibilities of generators, carriers, and receivers of hazardous waste in the NWT. ENR's Environment Division registers generators, carriers, receivers, and tracks the disposal of hazardous waste generated in the NWT to registered receiving facilities on hazardous waste movement documents (manifest). All transfer documents can be provided by ENR. Please contact the Environment Division, ENR directly for more information. Contact Mr. Gerald Enns, Hazardous Waste Specialist by email (Gerald_Enns@gov.nt.ca) or by phone (867) 920-8044.</p> <p>Topic: Sewage Treatment Plant Comment(s): No analytical data was presented in the application to ensure that the sewage treatment plant was achieving the water licence targets; and please indicate the distance of the sewage discharge pipe to the nearest water body. Recommendation(s):</p> <ol style="list-style-type: none"> 1) There is no mention if the water discharged from the sewage treatment plant is considered grey water. Please clarify and categorize the water discharged from the sewage treatment plant; 2) Please provide analytical data in graphical form, based on results/year indicating the sewage treatment plants compliance with the water licence; and 3) Please provide the distance of the sewage discharge pipe to the nearest water body. <p>Topic: Spill Contingency Plan</p>	<p>-forward comments to GTC (permission from Town of Inuvik on file at GLWB)</p> <p>-forward comments to GTC</p>
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	<p>Comment(s): This plan is specific to fuel spills and does not incorporate the potential for the unintentional release of other hazardous substances that may be present (ie Glycol, Sewage, Nitrates, etc.). An example of reportable amounts of other hazardous substances can be found in the AANDC <i>Spill Contingency Guidelines</i> (AANDC 2007) as well as supported with the GNWT <i>Spill Contingency Planning and Reporting Regulations</i>;</p> <ul style="list-style-type: none"> • There were no MSDS's included in the Spill Contingency Plan; • It is not indicated in the application how far the bulk fuel storage tank is away from the nearest water body (in meters); • The Fuel Spill Contingency Plan provides a copy of a spill report form that is currently not the most recent form that is to be used by the NT Spill Line; and • Based upon the proponents Fuel Spill Contingency Plan it is noted that Spot Spills of heavily contaminated snow will be incinerated if safe to do so. <p>Recommendation(s):</p> <ol style="list-style-type: none"> 1) Throughout this entire document, it should be made clear that this Contingency Plan does not only apply to Fuels but also to all hazardous materials that are listed to be on site. This will allow the operators and site staff, who should be familiar with this plan, to ensure the protocols are enacted if a release of ANY hazardous substance is released causing a spill; 2) Provide a site map that demonstrates that the fuel storage areas are greater than 100m distance from the high water mark and not located in a drainage channel, or an inspection report authorising the location of the storage placement area; 3) Further details in the Spill Contingency Plan should include: <ol style="list-style-type: none"> a) Material Safety Data Sheets (MSDS) for each product or contaminant stored on-site; and b) A detailed site map of the facility; <ul style="list-style-type: none"> ▪ While the geographic location and a sketch of the buildings were provided, further detail illustrating the area's location relative to other structures on site as well as proximity to nearby water bodies and any topographical feature that could affect access and response should be included. The detailed site map should also highlight the locations of spill response kits. 4) Please update the Spill Reporting quantities to reflect the volumes found in the AANDC Spill Contingency Planning document found here: http://www.aadnc-aandc.gc.ca/eng/1100100024236/1100100024253#aB3 In addition, spill reporting quantities can also be found in the GNWT <i>Spill Contingency Planning and Reporting Regulations</i> Schedule B found here: http://www.justice.gov.nt.ca/PDF/REGS/ENVIRONMENTAL%20PROTECTION/Spill Conting Plan and Report.pdf 5) Use the most up to date Spill Report Form located at: http://www.enr.gov.nt.ca/ live/documents/content/NTNU Interactive Spill Form.pdf when reporting a spill; and 6) For the remediation of Spot Spills or any other emergency environmental release, if incineration is considered it must be approved by a regulatory agency prior to conducting the event. 	<p>-forward comments to GTC</p>
GNWT ECE –PWNHC	no submission	no action required
GNWT – ITI (July 16, 2013)	I have discussed this application (G13L3-001) with our regional superintendent, and we have no concerns at this time.	no action required
GNWT – Environmental Health	no submission	no action required