



Water Resources
Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

March 20, 2017

INAC reference
CIDM# 1137635

NWB reference
#3BC-KAR1316

Karén Kharatyan
A/Manager of Licensing
Nunavut Water Board
Gjoa Haven, NU, X0E 1J0

Re: Indigenous and Northern Affairs Technical Review of Canadian Wildlife Service # 3BC-KAR1316 Amendment Renewal Type B water licence application

Dear Mr. Kharatyan,

Thank you for email received on February 20, 2017, from the Nunavut Water Board (NWB), concerning the above mentioned water licence application process.

A memorandum is provided for the consideration of the Nunavut Water Board. Comments have been provided pursuant to the Department's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

Please do not hesitate to contact me by telephone at 867-975-4568 or email at Lisa.Bachellier@aandc-aadnc.gc.ca for further comments or any questions.

Sincerely,

Lisa Bachellier
Water Resource Technician

c.c.: Ian Parsons, A/Manager Water Resources, Nunavut Regional Office (NRO), Indigenous and Northern Affairs Canada (INAC)
Erik Allen, Manager of Field Operations, NRO, INAC



Technical Memorandum

Re: Indigenous and Northern Affairs Technical Review of Canadian Wildlife Service # 3BC-KAR1316 Amendment Renewal Type B water licence application

Applicant: Canadian Wildlife Service
Project: Karrak Lake Project Amendment Renewal Type 'B' Water licence
Region: Kitikmeot Region

A. BACKGROUND

On February 20, 2017 the Nunavut Water Board (NWB or Board) provided notification to interested parties that Canadian Wildlife Service had submitted a Type "B" renewal amendment water licence application, # 3BC-KAR1316.

The Karrak Lake project is located 280 Km southeast of Cambridge Bay and 250 Km southwest of Gjoa Haven, Nunavut in the Kitikmeot Region. The location of North Karrak River camp 67°21'09"N 100°20'59"W, Karrak Lake Camp 67°14'14"N 100°15'33"W and Perry River Camp 67°42'N 102°12'W.

The Licensee has submitted a renewal amendment licence application; the applicant has requested a renewal of water licence until May 2026 and has also requested that they bury their organic waste along with their sewage in latrine pits.

All interested parties were asked to review the water licence cancellation application and provide technical comments by March 20, 2017.

B. RESULTS OF REVIEW

INAC Water Resource Division submits the following comment to the Nunavut Water Board for consideration:

1. Application amendment renewal water licence #3BC-KAR1316

Source:

1. Application for Type B Water licence Amendment renewal – Application water licence submission 03/24/2016



Question Block #14 Waste under other

The applicant is requesting permission to dispose of food waste with sewage-buried at latrine pits. After filling, these pits will be immediately covered with native material, and after a few years, revegetation should evident.

Recommendation:

INAC has no concerns with the applicant burying the organic food waste and sewage. The applicant should keep record of the location of all these areas where organic food waste/ sewage is being buried. Monitoring of the groundwater/ surface water in the area of the buried waste, as well as monitoring any seepage to ensure that there is no impact of any kind to surface or groundwater. Also ensure measures are taken to prevent wildlife from being attracted to the buried site. Ensure that the organic waste/sewage is of 31 metres of a high water mark, and a record and photos of description of the site measures the applicant has taken to have this landfill plan in place.

Spill Contingency Plan

Source:

Spill Contingency Plan for Kaarak Lake project area: Updated December 2016

Procedures for spills on snow

Contaminated snow should be shoveled into empty 205L steel drums. After melt, the fuel can be disposed of by incineration, or be simply allowed to evaporate.

Procedures for spills on ice:

Spills should be removed using absorbent material, and back-hauled to an approved wasted disposal facility. Remaining contaminated ice and slush should be shoveled into empty 205L steel drums, and after melt, the fuel incinerated or allowed to evaporate.

Procedures in water:

Contaminated water should be removed using buckets and placed in empty 205L steel drums, and incinerated or be allowed to evaporate.

Recommendation:

INAC recommends for spill containment on snow the applicant not to incinerate the melted snow but to put the contaminated snow into plastic bags or empty drums/barrels and disposed at appropriately facility.

INAC recommends for spill containment on ice on small spills, sorbent materials are used to soak up spilled fuel. The remaining ice/slush can be scrapped and shovelled into barrel or drum. And if all is possible to prevent spills from entering into ice covered



waters as no easy method exists for containment and recovery of spills if they seep into the water under the ice. And the ice/melted ice not to be incinerated if at all possible.

INAC recommends for spills on any water type the applicant to use booms to recover fuel floating on the surface of lakes or slow moving streams, or have weirs to be used to contain a spill in stream areas and prevent the spill from going downstream. As well the applicant should not incinerate the fuelled water.

INAC Inspections report

Source:

Water licence / Lands inspection report- Dated 07/19/2014

Under Section 1

#1 At the Perry River cabin, garbage littered the ground and there is an accumulation of old metal waste and hazardous waste'.

#2 No secondary containment is in use at any of the sites. The coordinate (A) 8 barrels were deposited on a narrow peninsula in the middle of lake. At the airstrip at Perry River, at risk of leaking at any time and a pile of jerry cans.

#3 No spill kits were seen at the cache locations or at Perry River. The only spill noted at any site was Karrak Lake, wrapped and stored in the equipment cabin.

#4 Please clarify whether any waste is being deposited in any community in Nunavut, and demonstrate the authorization provided by that community..... The plan also indicates the intent to remove of hazardous waste; therefore 'no hazardous waste may be deposited in to communities. Part D of the water licence issued to 3BC-KAR1316.

Recommendation

INAC recommends

#1 the applicant remove all garbage that is littered and remove the accumulated waste from the Perry River cabin old metal and hazardous waste in an authorized community and keep record of type of waste that is being deposited.

#2 Have fuel caches in secondary containment of fuel in all sites located within the water licence application.

#3 Have spill kits located at ever location noted in the water licence application, and the spill kits to be accessible and seen at each location in case of a spill.

#4 INAC recommends the licensee follow the conditions under the water licence 3BC-KAR1316 to waste at all locations within the water licence.



Under Part D: Items #5, # 6 # 7 & #10 Conditions applying to waste disposal issued under water licence no. 3BC-KAR1316;

5. The Licensee shall provide to the Board documented authorization from all communities in Nunavut receiving wastes from the Karrak Lake Project prior to any backhauling and disposal of wastes to those communities.
6. The Licensee shall backhaul and dispose of all hazardous wastes, waste oil and non-combustible waste generated through the course of the operation at a licensed waste Licence No. 3BC-KAR1316 disposal site.
7. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste. These records shall be made available to an Inspector upon request.
10. The proponent shall ensure that any hazardous materials, including waste oil, receive proper treatment and disposal at an approved treatment facility.

INAC inspection report

Source:

Inspection report 9 August 2016 Karrak lake location

Under Section 2 #3 & 4

3. Camp Garbage was disposed of in an Incinerator (Photos 7 & 8).
4. The 2 Fuel Drums attached to the back of the Main Cabin (Photos 9 & 10) had No Form of Secondary Containment.

Recommendation

#3 INAC recommends the licensee follow the water licence for conditions applying to waste disposal item #4

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

4. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding waters, unless otherwise approved by the Board in writing.



#4 INAC recommends the licensee follow Part H under the water licence for the spill contingency plan Item #2 & 3 and use secondary containment at all locations within the water licence.

2. The Licensee shall prevent any chemicals, petroleum products or wastes associated with the project from entering water. All sumps and fuel caches shall be located at a distance of at least thirty one (31) metres from the ordinary high water mark of any adjacent water body and inspected on a regular basis.

3. The Licensee shall conduct any equipment maintenance and servicing in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and contain potential spills.

INAC inspection report

Source:

Inspection report 9 August 2016 Perry River field airstrip/fuel cache area

Under Section 2

2. Fuel Cache #2 (Photo 3) had 3 Full Drums labelled GSH/BBC, 4 Full Drums labelled Perry River and 4 old Full Drums labelled NRCAN/PSP, none of these were in any form of Secondary Containment

Recommendations

INAC recommends having all fuel caches in a secondary containment to prevent a spill of any size.

Prepared by Lisa Bachellier