

Elaine Briere - MVLWB

From: Kelly, Mary [Yel] [Mary.Kelly@EC.GC.CA]
Sent: Tuesday, November 24, 2009 1:37 PM
To: permits@mvlwb.com
Subject: MV2009L3-0025 Hamlet of Fort Liard Water Licence Renewal - EC comments
Attachments: MV2009L3-0025 Fort Liard Water Licence Renewal Comments (EC) .pdf

Hello Angela,

Please find attached a copy of Environment Canada's response to the Mackenzie Valley Land and Water Board request for comments for the MV2009L3-0025 Hamlet of Fort Liard Water Licence Renewal Application. Please feel free to contact me should you have any questions.

Sincerely,

Mary Kelly

Prairie and Northern Region | Région des prairies et du nord
Environmental Protection Operations | Activités de protection de l'environnement
Environmental Stewardship Branch | Direction générale de l'intendance environnementale
Environment Canada | Environnement Canada
5019 - 52nd Street, 4th floor P.O. Box 2310 | 5019 - 52e rue, 4e étage C.P. 2310
Yellowknife (NT) X1A 2P7 | Yellowknife (TNO) X1A 2P7
mary.kelly@ec.gc.ca
Telephone | Téléphone 867-669-4715
Facsimile | Télécopieur 867-873-8185
Government of Canada | Gouvernement du Canada
Website | Site Web www.ec.gc.ca

<<MV2009L3-0025 Fort Liard Water Licence Renewal Comments (EC) .pdf>>



Environment Canada
Environnement Canada

Environment Canada
Prairie and Northern Region
Nova Coast Plaza
P.O. Box 2310
Yellowknife, NT X1A 2P7

November 24th, 2009

Your File: MV2009L3-0025
Our File: 4782 052

Angela Plautz
Regulatory Officer
Mackenzie Valley Land and Water Board
P.O. Box 2130
Yellowknife, NT X1A 2P6

Re: Hamlet of Fort Liard – Water Licence Renewal Application MV2009L3-0025

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

The Hamlet of Fort Liard is applying to renew their water license for up to a 10 year term to allow for the municipal use of water and deposit of waste. The Sewage Treatment Facility consists of a 3-celled system with twice annual decant to a forested area that eventually drains into the Petitot River. Cell 1 is newly constructed to increase retention time, resulting in flow reversal and decommissioning of the previous cell 1. The Solid Waste Facility consists of segregated bulky waste, hazardous waste and construction waste. The Hamlet is currently reviewing design options for a new Solid Waste Facility with a 40-year lifespan.

Environment Canada recommends that the following conditions be applied throughout the duration of the license:

General

- The Hamlet must ensure that any effluent discharged from the system's final discharge point is in compliance with Section 36(3) of the *Fisheries Act*. According to the *Fisheries Act*, Section 36(3), the deposition 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, is prohibited.
- It is recommended that total volumes of sewage be tracked and recorded to ensure adequate management and planning for tracked volumes. Records could be generated by tracking the number of full or partial sewage truckloads per day/week/year with the associated volume of the sewage trucks tanks.
- Environment Canada recommends that proper signage is in place indicating the locations of the SNP sites for the sewage lagoon and solid waste facility, as well as for the relevant segregated waste materials (ie, bulky waste, hazardous waste, etc).
- An updated Operations and Maintenance Manual should be submitted for approval as a condition of the water licence to reflect the operation and maintenance of the New Sewage Treatment Facilities and the resulting reconfiguration of Solid Waste Facilities. Generally the plan should include:

- A description of how facilities are operated and maintained;
- How often these tasks are performed; and
- The personnel responsible for their completion.
- All applicable Territorial Guidelines

Sewage Treatment Facilities Management

- A Closure and Reclamation Plan should be submitted for approval as a condition of the water licence for the decommissioned sewage cell.
- A minimum 1 m of freeboard should be maintained within the sewage lagoon at all times.
- Maintenance should include removal and disposal of sewage sludge. Estimates should be made of the quantities of sludge likely to be produced, the required frequency of extraction from the lagoons; and operational procedures developed for environmentally sound removal and disposal. These procedures should include characterization to ensure disposal options are appropriate. Environment Canada recommends that prior to desludging occurring, the proponent submit for approval a Sewage Sludge Management Plan that clearly outlines the chemical composite.

Solid Waste Management

- A Hazardous Waste Management Plan needs to be developed and implemented, and should cover handling and storage, as well as identify ultimate disposal of hazardous wastes.
- An Abandonment and Restoration Plan is needed for the solid waste site if this is not already in place.

Monitoring and Compliance

- It is very important that monitoring of the effluent from the sewage lagoon is carried out as per the Surveillance Network Program within the Water Licence. Proper and regular monitoring allow for evaluation and management of the current system and will help to prevent deleterious discharge to the receiving environment. EC notes the requirement for weekly sampling during decant. If the decant period is less than 7 days, sampling requirements should reflect this and be changed to require samples on the first and last day of decant.
- In order to properly monitor the system over time, it is important to collect SNP samples from the same location. SNP 1478-5 should have an explicit description or provide the GPS or UTM location. In Part D.4 of the licence, the location is described as “the East end of cell three (3) of the Sewage Disposal Facilities” which should be revised to reflect the current configuration.
- Site visits, inspection reports and the map provided entitled “Existing Sewage Treatment Lagoons and Solid Waste Disposal Site” note the presence of ponded water at the Solid Waste Site. EC recommends an additional SNP station is added to characterize the surface water leachate in order to develop adequate disposal methods. It is noted that groundwater wells exist in the vicinity of the facility. These should be monitored as well to properly manage the extent of the sewage plume.
- EC notes that the CCME Strategy for the Management of Municipal Wastewater has been signed, and that northern jurisdictions can expect performance standards for BOD5 and TSS to be regulated following a five year period which starts in 2009. We anticipate that the standards for these parameters may be higher than the 25 mg/L for each that is proposed for the southern jurisdictions and the Yukon, and that they will be lower than the NWT ‘Guidelines for the discharge of treated municipal wastewater in the Northwest Territories’ guideline levels. Also, it should be noted that carbonaceous Biological Oxygen Demand (cBOD) will be the regulated parameter, and it would be prudent to add this to the list of licence parameters now, in order to gain some idea of the system track record over the next five years.

Spill Contingency

- **All** spills must be documented and reported to the **NWT Spill Line at (867) 920-8130**.
- The Hamlet should produce an updated Spill Contingency Plan for approval which includes the new operations and infrastructure. The plan should facilitate response to spills which might occur during construction and operation and decommissioning of the project. The plan should include a list of available spill response equipment and the names of trained personnel who will be on-site and available in the case of a spill. If a Spill Plan is not already in place, the Hamlet should submit a Spill Plan for approval.

If there are any changes in the proposed activities, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 669-4715 or by email at mary.kelly@ec.gc.ca

Yours truly,

Mary Kelly
Physical Science Officer – Wastewater Specialist
Environmental Protection Operations

cc: Carey Ogilvie, Head EA North, Environment Canada
Anne Wilson, Water Pollution Specialist, Environment Canada
Savanna Levenson, Environmental Assessment Specialist, Environment Canada