

Environmental Protection Operations Directorate
Prairie & Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 5200 000 015/001
IVB File: N7L3-1619



September 23, 2020

via email at: semmlerm@inuvwb.ca

Mardy Semmler
Executive Director
Inuvialuit Water Board
151 Mackenzie Road - Mack Travel Building - 2nd Floor
P.O. Box 2531
Inuvik, NT X0E 0T0

Dear Mardy Semmler,

RE: N7L3-1619 – Hamlet of Paulatuk – Type B Municipal Water License – Renewal Application

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Inuvialuit Water Board (IWB) regarding the above-mentioned Renewal Application for a Type B Municipal Water License. You will find our comments below.

ECCC's specialist advice is based on our mandate pursuant to the *Canadian Environmental Protection Act, 1999* and the pollution prevention provisions of the *Fisheries Act*.

ECCC provides the following comments:

1. Upgrades to Sewage Lagoon

Reference(s)

- Appendix D – Figures – Site Overview
- Appendix H – Sewage Upgrade Details

Comment

Appendix H provides details on proposed sewage lagoon upgrades, including construction of an exterior berm south of the lagoon and drainage ditch surrounding the majority of the lagoon. The figures provided indicate that in the current configuration, water runs toward and directly into the lagoon from the surrounding areas, including from the solid waste facility north of the lagoon. Upon construction of the berms and ditches, there is the potential for runoff from the solid waste facility to enter into the drainage ditch and be directed



towards the wetland area and Darnley Bay. This runoff may contain high concentrations of metals and other potential contaminants.

ECCC Recommendation(s)

ECCC recommends that upon completion of the sewage lagoon upgrades, the municipality should add additional Surveillance Network Program (SNP) monitoring stations to characterize the quality of runoff in the drainage ditches surrounding the lagoon.

2. Solid Waste Management

Reference(s)

- Appendix D – Figures – Site Overview
- Appendix I – Solid Waste Disposal Facilities Operations and Maintenance Plan
- Inspection Report (November 4, 2019)

Comment

The Solid Waste Disposal Facilities Operation and Maintenance (O&M) Plan, as well as the figures depicting overall site design in Appendix D, indicate the intention for segregation of wastes and disposal of different types of wastes in distinct sections of the overall solid waste disposal facility. However, lack of segregation of wastes was identified in previous water licence renewals (2009, 2015) and continues to be an issue, as identified in the most recent Government of the Northwest Territories (GNWT) Inspection Report (November 4, 2019).

ECCC Recommendation(s)

ECCC recommends that the municipality take measures to manage the existing solid waste site in accordance with the current Solid Waste Disposal Facilities O&M plan, ensuring that wastes are properly characterized and segregated.

3. Decanting of Sewage Lagoon

Reference(s)

- Appendix G – Sewage Disposal Facility Operations and Maintenance Plan (Section 3.1)

Comment

The Sewage Disposal Facility O&M Plan, in general, reads as a series of recommendations, rather than requirements for operations and maintenance of the facility. Relating to decanting of the facility, the plan recommends that scheduled decanting should occur instead of the current continuous natural decanting. Further, the plan provides detailed recommendations on when the lagoon should be decanted based on natural Total Suspended Solids (TSS) and pH cycles related to microorganism activity. Based on the recommendations provided in the Sewage Disposal Facility O&M Plan, it is unclear to ECCC whether there is any intention of modifying the lagoon for scheduled decanting.

ECCC Recommendation(s)

ECCC recommends that the municipality clarify whether there are plans to modify the lagoon for scheduled discharge, as recommended in the Sewage Disposal Facility O&M Plan.

4. Sludge Management

Reference(s)

- Appendix G – Sewage Disposal Facility Operations and Maintenance Plan (Section 3.2 and 3.4)
- 2019 Annual Report

Comment

The Sewage Disposal Facility O&M Plan states that the municipality will report the depth of sludge in the lagoon annually, and provides instructions on monitoring and management of sludge levels in the lagoon. In addition to providing methodology for measuring sludge depth, the plan also provides the recommended sludge thickness that requires action for removal/management, and provides potential sludge removal, disposal, and treatment options. However, although the 2019 Annual Report indicates that no sludge was removed during the year 2019, the municipality has not provided sludge measurements as per the requirements outlined in the Sewage Disposal Facility O&M Plan.

ECCC Recommendation(s)

ECCC recommends that the municipality implement measurements of sludge depth annually, as per the Sewage Disposal Facility O&M Plan. The municipality should also report sludge depth as part of the Annual Report.

5. Monitoring Results

Reference(s)

- 2019 Annual Report
- 2020 SNP Data – June 2020

Comment

The 2019 Annual report acknowledges and provides results for SNP stations 1619-2,-3,-4, but does not provide data or discuss stations 1619-5 and -6, which monitor runoff from the solid waste facility. In addition, the June 2020 SNP results also do not include any monitoring data for stations 1619-5 and -6. The municipality has not indicated why they did not sample these stations, or if monitoring data is available.

ECCC Recommendation(s)

ECCC recommends that the municipality provide monitoring data for all sampling stations. For stations that the municipality was unable to sample in a given sampling event, the municipality should provide rationale for not sampling.

If you need more information, please contact Yee Ting Choy at (236) 427-6395 or YeeTing.Choy@canada.ca.

Sincerely,

[original signed by]

Yee Ting Choy
Environmental Assessment Officer

Attachment(s):

cc: Brian Asher, Acting Head, Environmental Assessment North (NT and NU)
Jody Small, Acting Head, Environmental Assessment South