



Hamlet of Naujaat Water Licence No. 3BM-NAU2126 Water License Application

EXECUTIVE SUMMARY

This application is being submitted to the Nunavut Water Board (NWB) by the Government of Nunavut, Department of Community and Government Services (CGS) on behalf of the Hamlet of Nauyasat for the amendment of Water Licence No. 3BM-NAU2126. Changes from the current licence include: a new single cell pre-treatment sewage lagoon with 12-month storage capacity, and the request to amend effluent parameter limits at monitoring location REP-6. The Hamlet is seeking a 10-year renewal of the previous water licence, which would be valid to the end of 2032.

All raw sewage generated by the community is collected using vacuum trucks and transported to the discharge area. The current system functions as a natural depression that receives the influent from the sewage trucks. It fills until its natural overflow point and then flows, uncontrolled, through the wetland, eventually discharging into the Hudson's Bay. In the planned upgraded scenario, a lagoon will be constructed to hold influent from the sewage trucks throughout the year, until the recommended decanting period between August – September.

In the existing scenario, surface runoff mixes with the sewage influent in the natural depression, and the highest volume of sewage runs through the wetland during freshet and other periods of significant runoff. This indicates that the current effluent quality being measured at REP-6 is likely governed by dilution. The new system has been designed as to allow surface runoff to bypass the lagoon through perimeter ditching and continue its path down the wetland to contribute to the ecology of the wetland and into the Hudson's Bay. Due to this, lagoon effluent will not be diluted by large amounts of surface runoff, and the effluent quality that is met at the compliance point will be a result of treatment of the effluent within the engineered lagoon and wetland system. On behalf of the Hamlet of Naujaat, CGS is requesting the lagoon effluent parameters be amended as follows:

Table 1: Summary of Amendment Request at REP-6

Parameter	Current Limit	Requested Amendment
BOD	80 mg/L	100 mg/L
TSS	70 mg/L	120 mg/L

The licensee is also requesting that the parameter BOD₅ in the license be amended to CBOD.