

Compliance Plan of the Water License of the Hamlet of Hall Beach

The Environmental facilities under the water license of the Municipality of Hall Beach consist of the followings:

1. Water Supply System
2. Wastewater treatment system and
3. Waste management facility

Water supply system: The Lake is the main water source. An annual storage reservoir was built next to this lake with a truck fill station at the South. This facility has a standard O&M manual developed in 2000. This O&M document is being used without any change since this facility was built.

Hamlet is maintaining this reservoir along with the water truck fill station. Disinfection to supply water is being conducted with chlorine inside the Water Truck fill station. Only chlorine residual is being tested to the water from each and every truck. Iqaluit Lab is doing QA/QC of the water supply system. Each month, the community collects five samples from five different locations and sends to Iqaluit lab of the Department of Health and Social Services. The lab conducts testing of microbiological parameters on monthly basis. The health inspectors visit community two/three times in a year and sample by themselves following their lab procedure.

They also train and retrain the hamlet operators on sampling, handing and testing of the community potable water supply in order to make sure it is safe to drink. The community is responsible for supplying safe drinking water to the individual resident only. The Residents themselves are responsible for the water quality from their own storage tanks to the taps. No E-coli was identified so far in the community drinking water supply system. The test results are attached.

Wastewater Treatment System: The Community wastewater treatment system is a natural lagoon. This facility has two cells. The Southern cell exfiltrates liquid into the Northern cell through the common berm.

The Northern cell (second cell) exfiltrates liquid into the drainage channel through its North and Eastern berms.

The liquid after primary treatment rolls over the wetlands prior to reaching into the sea. Hamlet started annual decanting and testing effluent in an accredited lab in Ottawa following the standard QA/QC of the lab. The Lab testing results of 2008 are attached with the hamlet annual report.

Waste management: The community has two waste management sites: Domestic waste (Land fill) site is located to the West of the lagoon and the bulky metal site is to the South. Both are non engineered facilities without O&M documents. The community usually burns domestic wastes during summer, cover with granular materials and compact annually using their normal practices.

The short term action to address the compliance issue, the GN will commission a study to improve the use of the waste management process. From this study, we will be able to know exactly what the needs of this community are. We will use this study to educate the municipality in the proper operation of their landfill site, creating training manuals, which will lead to a landfill operation training program through MTO. We will incorporate this study to design new landfill site to enable the community to properly segregate their solid wastes within the landfill site.

Common Issues:

On the top, Dillon Consulting Ltd, has been hired to overseeing and updating all the Hamlet Water Licenses of Nunavut including the one of the hamlet of Hall Beach. Their main focus is to work with the Hamlets to increase human capacity in the following areas:

- Bringing monitoring data up to date according to the terms and conditions of each water licence, and teaching hamlet staff how to monitor and take effluent quality samples.
- Teaching hamlet staff how to produce the annual reports required by water licences and making sure all hamlets are up to date with these annual reports.
- Writing O&M manuals as needed
- Writing Abandonment and Restoration Plans as needed
- Writing Spill Contingency Plans as needed
- Writing QA/QC plans as needed
- Helping each hamlet to understand what is needed to comply with annual reporting in regard to their water licences, and to work with them to bring them up to date in this regard
- Writing a generic template for applying for or amending a water licence
- Helping hamlets to create and place correct signage at various required Monitoring Program Stations (and identifying these MPS in GPS coordinates reported in the new or amended water licences for their sewage, water, and solid waste systems)

Locating any drawings required to bring up to date each water licence. If these drawings do not exist, the consultant may be required to produce them. Depending on the nature of a deficiency, the consultant will be expected to provide a municipality with sound engineering drawings that can be used by hamlet crews to bring the existing facilities into compliance.

