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Department of Community and Government Services
Nunalingni Kavamatkunnilu Pivikhaqautikkut
Ministère des Services Communautaires et gouvernementaux

October 03, 2018

Joseph Monteith Water Resources Officer .Qiqiktani Region Crown-Indigenous Relations and Northern Affairs Canada P.O. Box 2200 ;Iqaluit, NU ;X0A 0H0

Ph.: 867 975-4289; Fax: 867 979-6445 Email: joseph.monteith@canada.ca

Sub: Hall Beach Sewage Lagoon Cell 1.

Dear Mr. Monteith,

During July 2018 it was reported that bubbles were observed in the liquid retained in the lagoon. In response to this report the GN conducted an assessment in August, 2018.

The assessment was conducted to identify possible causes and remediation measures to restore the Cell.

On August 27th, 2018, the Hamlet stopped discharging into Cell 1, allowing the assessment of the septic truck discharge areas. Due to significant erosion observed at these locations, the field program was shifted to assess and provide temporary repair to those areas.

On August 28th, 2018, the southern discharge area was assessed, and an improved erosion control structure was constructed at the Cell bottom.

On August 29th and 30th, 2018, the northern discharge area was assessed and the damage encountered was repaired using what material was available.

At the northern discharge area in particular, multiple observations of distress to the liner were seen. The sand and cover material and portions of the gabion basket erosion control system had been eroded away, with the larger stone also observed to have slid down the liner. Repairs were undertaken to repair the liner. These repairs in the north discharge area are considered temporary as the liner was not able to be secured at the top of slope. The temporary fix will be removed and replaced with full repair that would include the removal of and instatement of the north discharge station.

A field inspection was conducted and a summary of the recommendations from the report are as follows:

- Usage of Cell 1 to be limited to the southern discharge location
- Operational procedures related to septic truck discharge to be reviewed with truck operators.
- Regular observation of the discharge to determine if there is continued erosion of the granular materials above liner
- Observation of the eastern berm for seepage
- Installation of measuring devices to record levels within the cell on a regular basis.

As the Project is under the contractor's warranty, they carried out the repair works as per the consultant recommendations on site during that period.



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The Hamlet will be required to use the Cell 1 lagoon once Cell 2 is full. During using the Cell 1 lagoon, the Hamlet will be submitting a spill report if flow is seen outside of the berm and conduct necessary sampling and testing as necessary.

It is noted that any liquid coming out from these lagoons are naturally treated in several retention ponds located in the wetlands prior to reaching to the receiving body which is about 3km from these lagoons.

You will be informed about the deviation of actions or amendments.

Please contact if you have any other advice or direction.

Thanks.

Bhabesh Roy, M.A.Sc., P.Eng.

Municipal Planning Engineer
Community Government Services
Baffin Region, Government of Nunavut
P.O.Box 379, Pond Inlet, X0A 0S0
Ph-867 899 7314

Fax-867 899 7328 E-mail: broy@gov.nu.ca

Copy: James Langille, SAO, Hamlet of Hall Beach