



July 28, 2016

Ralph Ruediger
A/Assistant Deputy Minister
Community and Government Services
Government of Nunavut
Rankin Inlet, Nunavut

RE: Regulatory Concerns regarding Sewage Management Practices in Cape Dorset

Dear Mr. Ruediger,

On June 18 2016, a Municipal Water License inspection was conducted at the Hamlet of Cape Dorset for the purpose of verifying and ensuring compliance with the Hamlet's expired Water License, the Nunavut Waters and Nunavut Surface Rights Tribunal Act (*NWNSRTA*), and the Arctic Waters Pollution Prevention Act. The inspection was conducted in the presence of Bhabesh Roy and Eric Langdon. During the course of the inspection, significant concerns were noted with the 'Three Tier Lagoon' structure. This lagoon system has a history of structural failure and water samples from the effluent of this lagoon have consistently failed to meet effluent quality discharge criteria as set in the Hamlet of Cape Dorset's Water License. Other concerns that were noted during the inspection include:

- Over topping of cell #2 of the Three-Tier Lagoon caused by:
 - Improperly maintained drainage ditches surrounding the facility
 - The surface water drainage ditches surrounding this facility are filled with ice and the Hamlet is unable to excavate them due to the inability to operate heavy machinery on these unstable berms
 - The blocked drainage ditches are causing significant amounts of upstream run-off from the landfill and the nearby mountain to directly enter cell #2
 - Frozen culverts
 - The improperly maintained culverts are preventing sewage to flow between cells as designed.
 - This is causing insufficient freeboard within the facility allowing cell #2 to overtop.
 - As occurred during the 2015 Freshet, improperly maintained culverts likely contributed to the failure of cell #3. This may lead to another failure of the berm wall if not addressed.
 - Untreated effluent then bypasses cell #3 and directly enters the environment
 - The community does not have a working culvert steamer to address this concern.
- Insufficient resident time within the facility to properly treat sewage
 - As indicated in historical and present sampling results

While on site, I spoke with Ed Devereaux, the Senior Administrative Officer at the Hamlet of Cape Dorset, about any concerns the Hamlet has about operating this facility. The Hamlet expressed concern that due to the inadequate size of the lagoon system, wastewater was entering the environment without proper treatment and that it may have an effect on their local fish and clam populations. They also expressed concern about the significant financial drain the maintenance of the facility was having





on the Hamlet's limited resources. A letter was written to INAC on July 20, 2016 expressing these concerns in writing (see attachment).

After the inspection was complete, results from samples of the effluent taken by INAC during the inspection, as well as the results taken by the Hamlet in February 2016, were forwarded to the GN Department of Health to determine if this discharge poses a threat to human health. On July 20, 2016 Dr. Barker, the Chief Medical Officer of Health of Nunavut confirmed in a letter to INAC that local shellfish harvesting occurs in proximity of the sewage entering the marine environment and that the parameters exceed both the Canadian Shellfish Sanitation effluent criteria for Fecal Coliforms and the Northwest Territories Guidelines for the Discharge of Treated Municipal Wastewater. The Department of Health has asked INAC to exercise their regulatory authority to remediate the malfunctioning sewage lagoon (see attachment).

Determination:

INAC, under the authority of section 87 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, has a responsibility to direct a person to take reasonable measures to prevent the deposit of waste, or the failure of a work where the inspector believe on reasonable grounds that the adverse effects of that deposit are causing, or may cause, a danger to persons, property or the environment.

Given the results of the Water License inspection that occurred in June 2016, and the letters provided to INAC on July 20, 2016, the threshold of section 87 has been met due to the significant concern related to the operation of the Three Tier Lagoon, its effects on the environment, its risk of failure, and its threat to public health.

INAC is requesting that the Department of Community and Government Services immediately take all reasonable measures to prevent the deposit of waste in contravention of subsections 12(1) of the NWNSTRA and to counteract, mitigate or remedy the adverse effects of any such deposit causing, or which may cause, danger to persons property or the environment. As outlined above, the current handling of sewage in the Hamlet of Cape Dorset is cause for significant concern and must be addressed immediately.

In my capacity as a Water Resources Officer appointed under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, I am requesting that the Department of Community and Government Services contact INAC immediately to begin the process to address these concerns. Failure to communicate with INAC may result in further enforcement action.

If you have any questions regarding this letter and its contents, please don't hesitate to contact me at [867-975-4517](tel:867-975-4517) or at justin.hack@aandc-aadnc.gc.ca

Sincerely,

Justin Hack
Water Resource Officer
Indigenous and Northern Affairs Canada
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INAC: AAN





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CC:

Erik Allain, INAC

Bhabesh Roy, Community and Government Services

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Paul Mulak, Community and Government Services

Darren Flynn, Community and Government Services

Jim Currie, Community and Government Services

Greg Thibault, Department of Health

Michele LeBlanc-Havard, Department of Health

Dr Kim Barker, Department of Health

Ed Devereaux, Hamlet of Cape Dorset

Mary Joanasie, Hamlet of Cape Dorset

Padlaya Qiatsuk, Hamlet of Cape Dorset

Nunavut Water Board

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