



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee		Licensee Representative	
Hamlet of Cape Dorset		Jon Hussey	
Licence No. / Expiry		Representative's Title	
3BM-CAP0810		Acting Senior Administrative Officer	
Land / Other Authorizations			
None			
Date of Inspection		Inspector	
May 17, 2017		Jonathan Mesher	
Activities Inspected			
<input checked="" type="checkbox"/> Camp/Municipality	<input type="checkbox"/> Drilling	<input type="checkbox"/> Mining	<input type="checkbox"/> Construction
<input type="checkbox"/> Roads/Hauling	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Reclamation
<input type="checkbox"/> Fuel Storage			

Conditions:		A - Acceptable	C - Concern	U - Unacceptable	NA – Not Applicable	NI – Not Inspected					
Water Use		Condition	Comment	Site Conditions		Condition	Comment	Haz/Mat Management		Condition	Comment
Intake/Screen	NI			Water Management Structures		A		Storage		A	
Flow Measure. Device	C			Culverts / Bridges		A		Spills		NI	
Source:	NI			Drainage		A		Spill Plan		A	
Water Use:	C			Erosion / Sediment		A					
Recirculation (y /n)	NA			Mitigation Measures		A		Administrative			
				Reclamation Activities		A		Records		C	
				Materials Storage		A		Reports		NA	
Waste Disposal				Signage		A		Plans		NA	
Waste Water	C							Notifications		NA	
Solid Waste	C			Monitoring				Other			
Hazardous Waste	C			Sample Collection / Analysis		NI					
<i>*The number in the comments field will correspond with specific comments provided below.</i>											
Samples taken by Inspector:			Location(s): Emergency lagoon discharge								
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											

SECTION 1	<input checked="" type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
Inspectors Statement			
<p>On May 17, 2017, a water licence inspection was conducted at the Hamlet of Cape Dorset, Qikiqtani Region, Nunavut. Sites inspected included the 2007 uncommisioned Lagoon, the Emergency Lagoon, the Three-Tier Lagoon and the Solid Waste Disposal Facility.</p>			
Background			
<p>The Hamlet of Cape Dorset has an expired licence for Municipal Undertakings for the use of 192 cubic meters of water per day and for the deposit of waste.</p>			
<p>The Three-Tier sewage Lagoon and the Emergency Lagoon are now the main sewage disposal facilities for the community. The 3 tier lagoon has a history of failing to meet the water quality effluent limits and the Emergency does not have to capacity to manage the community production of effluent.</p>			
<p>Concern about the Three-Tier facility has been raised by the Mayor of Cape Dorset in a letter issued to Indigenous and Northern Affairs Canada on July 20, 2016. In the letter the mayor outlines his concern on the effects this may have on the harvesting of clams and fish, the financial burden this lagoon has on the community, and the incapacity of the lagoon to properly treat sewage.</p>			
<p>Furthermore, the Department of Health, Government of Nunavut has also issued a letter to Indigenous Affairs and Northern Development outlining the effluent entering the ocean exceeds both the Canadian Shellfish Sanitation Effluent Criteria for faecal coliforms and the Northwest Territories Guidelines for the Discharge of Treated Municipal Wastewater (1992).</p>			
<p>Community and Government Services are developing a strategy to address the concerns of the Three-Tier Lagoon. In 2007, a new lagoon system (2007 Uncommissioned Lagoon System) was built but never commissioned. This lagoon was built to replace the previous lagoon systems; however, due to issues with the containment and the access road, this lagoon was never commissioned. To address this situation, Community and Government Services have commissioned two studies to understand the issues with the 2007 Uncommissioned Sewage Lagoon: Cape Dorset Tracer Technical Report (2011) and the Cape Dorset Feasibility Study (2015).</p>			
<p>INAC is working with the community to upgrade and replace municipal water and waste water infrastructure to maintain essential services and mitigate non-compliance through voluntary compliance with the expired licence as required in Section 46 of the Act.</p>			
<p>Community and Government Services have been helping the Hamlet of Cape Dorset renew the licence since 2010.</p>			



Weather Conditions on Site

Mainly cloudy with temperatures between -1 and 5 degrees Celsius. The Hamlet of Cape Dorset was partially snow covered at the time of the inspection, making it difficult to inspect some water management structures.

Inspection

Unlicensed Water Use

- 1. Marcil Lake
 - a. Water is being withdrawn from Marcil Lake as approved in the expired Water Licence.
 - b. During the Inspection it was noted that the Hamlet has not installed a flow meter. The SAO informed that they should have a flow meter and will install it prior to the next inspection.
 - c. A secondary source of raw water (Ice Lake) has been identified by the Licensee in case of emergencies. There was concern from Hamlet and Government of Nunavut representatives during the inspection about the construction site near Ice Lake (Figure 1). The Hamlet of Cape Dorset has contacted the construction company and since resolved the issue.
 - d. Water use from Marcil Lake is not currently authorized, its recommend that the Hamlet of Cape Dorset obtain a valid Water Licence.

Unlicensed Deposit of Waste

- 2. Sewage Disposal Facility
 - a. During the inspection the Hamlet was using the Emergency Lagoon and decanting across the road to a run-off area with diversion berms to slow the flow, it does not appear to the inspector to effect inland waters. (Figure 2).
 - b. The three tier sewage lagoon was not in-use but, appeared to the inspector to be in better condition than last year. Improvements such as;
 - i. Swales surrounding the lagoon system has been cleared to allow water to flow around the lagoon system (Figure 3),
 - ii. Culverts connecting the 3 cells where free of ice to allow flow within the system
 - iii. The 3 cells where decanted in the fall of 2016 to allow earlier use in the summer of 2017 (Figures 4, 5 and 6).
 - c. Berm walls surrounding the facility did not appear to have signs of slumping or cracking.
 - d. Freeboard height was sufficient.
- 3. Solid Waste Facility
 - a. The Licensee manages domestic waste through a burning and covering procedure, see figure 7 for a picture of this facility.
 - b. There were no signs of leachate coming from the facility at the time of inspection.
- 4. Reports/Records:
 - a. Records for water use were in good order and made available to the inspector.

SECTION 2	<input type="checkbox"/> Comments	<input checked="" type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
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The Hamlet of Cape Dorset is currently using water without the authorization from a valid water licence. This is in contravention of the Nunavut Waters and Nunavut Surface Rights Tribunal Act, section 11. In order for Cape Dorset to be authorized for their current activities they must hold a water licence for the use of water. This includes the use of water related to the use of Marcil Lake as a Water Source, the use of a secondary water source Ice lake, and the use of water related to the storage of water by means of dams or dykes related to the enhanced storage facility.

Regarding the discharges of the wastewater and leachate into the ocean, the Hamlet should be aware that other legislation, both Federal and Territorial, likely applies to this discharge of effluent into the ocean and should ensure compliance with all other relevant regulations. The sampling results may be provided to other federal agencies upon request.

Inspector's Name	
Jonathan Mesher	
Signature	
Date	
June 19, 2017	



Figure 1: snow piled near Ice Lake



Figure 2: Emergency Lagoon outflow



Figure 3: Cleared ditches



Figure 4: Cell 1



Figure 5: Cell 2



Figure 6: Cell 3



Figure 7: solid waste disposal facility