



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee	Licensee Representative
Hamlet of Whale Cove	Paul Kaludjak, Megan Lusty (CGS)
Licence No. / Expiry (DD/MM/YYYY)	Representative's Title
3BM-WHA0914 (31/05/2014)	Senior Administrative Officer
Date of Inspection (DD/MM/YYYY)	Inspector
07/07/2014	WRO C. Wilson, A/WRO J. Hack

Activities Inspected					
<input type="checkbox"/> Camp <input type="checkbox"/> Roads/Hauling	<input type="checkbox"/> Drilling <input type="checkbox"/> Other:	<input type="checkbox"/> Mining	<input type="checkbox"/> Construction <input checked="" type="checkbox"/> Other: MUNICIPAL UNDERTAKING	<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
Source: Fish Lake	A	2	Water Management Structures	U	5,6	Storage	U	12
Intake/Screen	NI		Culverts / Bridges	NA		Spills	U	13
Flow Measure. Device	U	2,4	Drainage	U	5			
Water Use: Unknown	U	3	Erosion / Sediment	NI				
Recirculation (y /n)	NA		Signage	U	14	Administrative		
						Records	U	16
						Reports	U	16
Waste Disposal						Plans	U	8,19
Waste Water	U	6-7,9				Plans	U	14-16
Solid Waste	U	5,8	Monitoring			Other		
			Sample Collection	U	14-18	Notification		
			Analysis	U	16	Authorization	U	1
*The number in the comments field will correspond with specific comments provided below.								
Samples taken by Inspector: A/WRO Hack, WRO Wilson			Location(s): WHA-2-Leachate from Solid Waste disposal Facility; WHA-3- final discharge from sewage disposal facility.					
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								

SECTION 1	<input checked="" type="checkbox"/> Comments (s._1_)	<input type="checkbox"/> Non-Compliance with Act or Licence (s._)	<input type="checkbox"/> Action Required (s._)
PRE INSPECTION			
<p>On April 24, 2014 the Nunavut Water Board (the Board) sent a letter to EXP Services Inc.’s Stephan A. Douglas; a consultant hired by Community Government Services (CGS) to work on behalf of the Hamlet of Whale Cove regarding water licensing. The letter identified a number of deficiencies requiring resolution to complete the amendment-renewal application process. The Board determined the following documents must be submitted before the licensing process could proceed:</p> <ul style="list-style-type: none">- 2009, 2010 and 2013 annual reports as required under Part B, item 1- Solid Waste Disposal Facilities Update Report as required under Part F item 1- Operations and Maintenance (O&M Plan) Manual which would consolidate; the Environmental Emergency Contingency Plan (December 2008); the Environmental Monitoring Program & QA/QC Plan (December 2008); the Sewage Treatment Facility O & M Plan; the Solid Waste Management Facility O & M Plan; and the Water Supply Facility O & M Plan. This Plan will also consider the proposed expansions to the Waste Water Treatment Facility.- Geotechnical inspection as required under Part F, item 4- A reviewed QA/ QC Plan as discussed in Part H, item 13 and 14 <p>1) The Hamlet of Whale Cove is currently operating without authorization to use water or deposit waste. Their water licence 3BM-WHA0914 expired May 31st, 2014. The inspector was provided a copy of the 2013 annual report produced on behalf of the Hamlet by CGS. Upon review of this document the inspector noted numerous documents discussed in the report that were not available for review on the NWB FTP site. The following is a list of information listed in the annual report of specific interest:</p> <ul style="list-style-type: none">- tabular summary of the monitoring program results at the locations described under Part H item 1- the Environmental Assessment Report (Nunami Stantec 2012) which includes the soil sampling results and the remediation plan for the Landfarm.- analysis of the “extended sampling and testing program for 2013” as referred to under the additional information section of the Annual report- Arktis Solution’s “Feasibility Study for the Waste Management Areas in Nunavut” as discussed in the item 7 of the 2012 and 2013 annual report. <p>The Nunavut Water Board is encouraged to consider the 2012 and 2013 annual reports to be incomplete and require a resubmission containing the above listed documents. The annual report is a document that must be produced in consultation with the Hamlet SAO to ensure the Hamlet of Whale Cove is being represented accurately as they are ultimately responsible for the terms and conditions of the water licence.</p>			



Notes: Pre Inspection Meeting

-CGS representative discussed several issues with regards to compliance with the water licence. The two main topics of discussion was the requirement for the annual geotechnical inspection and the sampling parameters required in the monitoring program.

- CGS elaborated on their proposal of using the in-house services of a municipal engineer to provide an annual engineering inspection with recommendations. As discussed at the pre meeting inspection, CGS is encouraged to discuss and champion this proposal to the Board. However the inspector also reminds CGS that this proposal in no way absolves them of the Hamlet of their responsibility to adhere to the terms and conditions of the water licence. The Hamlet of Whale Cove is required to submit a geotechnical inspection of all water and waste management structures as required under Part F item 4.

-CGS discussed the limitations they face with the length of the required sampling season (May to August) and sampling parameters. To clarify, PART H item 4 requires **inspection** of the monitoring station WHA-2 and WHA-4 weekly -not sampling- from May to August. This inspection is to determine effluent flow in order to fulfill the monitoring requirements of PART H item 3. This inspection must be recorded and made available upon request of the inspector. Regarding the licensed parameters the inspector would encourage CGS to utilizing the PART H item 17 of the license. This term allows for modification to be made to the monitoring program upon written approval by the Board.

WATER USE

- 2) Raw water is drawn from Fish Lake via the Water Treatment Facility (WTF). CGS operates and maintains the WTF in the Hamlet of Whale Cove.
- 3) At the time of the inspection the device that meters the usage of raw water was out of service. The Hamlet is required to measure water usage from Fish Lake as per PART B item 4.
- 4) The Hamlet is encouraged to actively discuss issues with the WTF maintainer. The water license terms and conditions are the responsibility of the Hamlet and therefore the water usage records are the responsibility of the Licensee.

WASTE DISPOSAL

- 5) The Solid Waste Management Area appears to be divided into two major sections; an area for domestic waste and an area for bulky waste (photo 2). The Solid Waste Management Area requires; waste segregation, fencing, water/ waste containment structures, signage and regular monitoring. The facility is not being operated as per the O & M Plan as required under Part B item 11 and 12 (see comment 19).
- 6) Located immediately adjacent to the tidal flats of Wilson Bay is a large pond of leachate water from the Solid Waste Management Area. Leachate was observed running from under the containment berm down towards the Bay. The containment berm is fitted with a culvert which allows leachate to pass from the containment pond to the Bay. The Hamlet is required under PART D item 15, to take the necessary steps to ensure leachate from the Solid Waste Management Area does not enter water (photo 3). The pond did not meet the requirements under PART D item 4 of a minimum of one (1) meter freeboard.
- 7) The domestic waste area is fenced though general maintenance is required to comply with PART D item 13 of the License. The Hamlet informed the inspector the fence will be repaired this summer with the coordination of CGS.
- 8) The Landfarm Facility ('facility') is located within the Solid Waste Management Area (photo 4). At the time of the inspection hazardous waste (e.g.: batteries, paint cans, and drums of unknown content) were being stored in the facility (photo 5). The Landfarm Management Plan is not being implemented as required under PART B item 11 and PART D item 6.
- 9) The contaminated soil in the landfarm is piled level with the berms which does not allow for water accumulation.

SITE CONDITONS

- 10) The inspector is concerned with the overall construction of the Landfarm Facility; the as-built drawings, as required under PART E item 4, are not available for review on the NWB FTP website. The facility is surrounded with bulky metal and the berm wall structural integrity are of concern (photo 6).
- 11) The monitoring stations are lacking the appropriate signage as required under PART B item 5.

HAZMAT

- 12) The Hamlet has utilized the secondary containment of the Landfarm Facility for the purpose of hazardous waste storage. Though this practice does put some of the materials into secondary containment the Landfarm is not usable for the purpose of remediation. Hazardous materials such as batteries, unknown hydrocarbons, and paint cans, were noted in and around the facility (photo 5).
- 13) Numerous spills were noted at the Solid Waste Management Area (photo7).

MONITORING

- 14) The Hamlet is lacking signs which identify the monitoring program sampling locations as required under Part H item 1.
- 15) As discussed above the Hamlet fails to measure and record the amount of fresh water being used at WHA-1 (Water Treatment Plant).
- 16) The Hamlet failed to implement the monitoring as required under PART H item 1, 2, 3, 4, 5, 6, 8 and 9.
- 17) At the time of the inspection no samples had been taken for 2013 and 2014.
- 18) The Hamlet and CGS representative were unable to locate or confirm installation of the monitoring wells at the Landfarm Facility as required under PART H item 8.

ADMINISTRATION

- 19) The Solid Waste Management facility is not being operated as per the O & M Plan as required under Part B item 11 and 12. The Solid Waste Management Facility OM Plan (Nuna Burnside, 2008) states in section 1.1 *"This Operations and Maintenance Plan applies to the Solid Waste Management Facility after it has been rehabilitated according to the recommendations in the Solid Waste Management Facility Rehabilitation Plan ('SWMFR Plan') (Nuna Burnside, 2008)"*. This inspector was unable to review a copy of the SWMFR Plan and confirm if this Plan was carried out to its full extent in 2009/2010 as indicated in s (1.1) pg (1) of the O & M Plan.

A geotechnical document has been submitted and is available on the NWB ftp. This document was produced specifically for the

wetland treatment area. As required under PART F item 4. With the information available regarding geotechnical inspections and the state of the waste water treatment berms at the Solid Waste Management Area the Inspector requires a geotechnical inspection to be completed as per PART F item 5 of all water and waste management structures.

SECTION 2

☐ Comments (s. __)

☒ Non-Compliance with Act or Licence (s. 2)

☐ Action Required (s. __)

- PART B item 5- Failure to install and maintain monitoring station signage.
- PART B item 4- Failure to meter water from the source.
- PART B item 11- Failure to implement Plans as approved by the Board.
- PART B item 12- Failure to carry out plans to full extent.
- PART D item 4- Failure to maintain free board for all water management structures.
- PART D item 6- Failure to meet treatment objectives in Landfarm
- PART D item 13- Failure to permanently contain all solid waste in the Solid Waste Management Facility.
- PART D item 14- Failure to segregate hazardous waste
- PART D item 15- Failure to contain leachate from entering water
- PART E item 4- Failure to submit as-built drawings for the Landfarm Facility
- PART F item 4- Failure to carry out annual geotechnical inspections.
- PART H items 1-6, 8, 9- Failure to fulfill monitoring requirements.

SECTION 3

☐ Comments (s. __)

☐ Non-Compliance with Act or Licence, (s. __)

☒ Action Required (s. 3)

- The Hamlet will install a new meter to measure all fresh water drawn from the intake pump at Fish Lake and record it daily water used. The Hamlet will provide a picture of the new meter to the inspector before August 30th, 2014.
- The Hamlet will install and maintain fencing at the Solid Waste Management Facility as discussed during the inspection. The upgrades will be recorded and included in the 2014 annual report as per PART B item (1)(d).
- The Hamlet will implement the current monitoring program for 2014 as prescribed in this licence and provide each set of samples to the Inspector monthly starting with July and ending in September. This submission will be scheduled and in consultation with the Inspector. The Hamlet or the associated representative is required to contact the Inspector to discuss this schedule no later than July 30th, 2014 at the co-ordinates below.
- The Hamlet will undertake the steps required to obtain a current water licence. The preliminary steps to this process will be submitting the outstanding documents as discussed in the beginning of this report. The Hamlet or a representative will contact the Inspector to discuss the submission of these outstanding documents and the submission of a compliance plan regarding the non-compliance issues as identified in this report.

Licensee or Representative	Inspector's Name
	Christine Wilson
Signature	Signature
	Originally signed on file
Date	Date

Office Use Only:

Follow-up report to be issued by Inspector

☒ Yes ☐ No

Photo log attached

☒ Yes ☐ No



PHOTO LOG

Date:	Authorization Number:	Camera/Model:	Inspector
07/08/14	3BM-WHA0914	Sony DSC-HX50V Cyber shot	WRO Wilson

Location name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 1	N62° 11 '47.8", W 92° 33' 48.16"



Desciption:
Water Treatement Plant, Fish Lake, Whale Cove

Location name:	Lat/Long (DD.MM.SS.SS, NAD83)
Photo 2	NA



Desciption:
Soild Waste Managment Area



Location name:
PHOTO 3

Lat/Long (DD.MM.SS.SS, NAD83)
N 62° 10' 9.82", W 92° 35' 47.23"



Description:
Soild Waste Managment Area leachate flowing from containment pond to Wilson Bay.

Location name:
PHOTO 4

Lat/Long (DD.MM.SS.SS, NAD83)
N62° 10' 6.98", W 92° 35' 44.11"



Description:
Landfarm within the Soild Waste Managment Area, Note the garabage inside and surrounding the facility.

Location name:	Lat/Long (DD.MM.SS.SS, NAD83)
PHOTO 5	N 62° 10' 9.82", W 92° 35' 47.23"



Description:

Hazardous materials inside the Landfarm Facility

Location name:	Lat/Long (DD.MM.SS.SS, NAD83)
PHOTO 6	N 62° 10' 9.82", W92° 35' 47.23



Description:

Land farm (Left to right)-exposed liner and what appears to be slumping and erosion to the exterior of the berm walls; exposed liner and material removed from the exterior of the berm walls.

Location name:		Lat/Long (DD.MM.SS.SS, NAD83)	
PHOTO 7		Several locations	
			
			
Description: Spills with in Soil Waste Managment Area			