

Environment and Natural Resources
Government of the Northwest Territories
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September 9th, 2015

Hamlet of Sachs Harbour
General Delivery
Sachs Harbour NT X0E 0Z0

Attn: Stephen Wylie, Senior Administrative Officer

**RE: MUNICIPAL Water Use N7L3-1531
CLASS B - MUNICIPAL
Water Lake**

Dear Mr. Wylie,

An inspection of the Municipal Water Supply and Waste Disposal Facilities was conducted on August 20, 2015. Enclosed is a copy of the Municipal Water Licence Inspection Report.

A number of violations were observed at the time of the inspection as described in the Inspection Report. However, I would like to draw your attention to 3 high priority items that require immediate action:

1. Environment and Natural Resources Officers have witnessed open burning of mixed garbage at the Sachs Harbour solid waste site, as recently as August 2015. This presents a serious environmental health risk and is a violation of Part D, Item 10, of the Water Licence.
2. Environment and Natural Resources Officers have witnessed Hamlet staff and contractors working on the Icicle Inn demolition dispose of construction and demolition materials at the solid waste site, some of which were identified as hazardous materials. This presents a risk to the environment and adds unnecessary financial liability for the Hamlet. As a result, this is a violation of Part D, Item 12, of the Water Licence.
3. Environment and Natural Resources Officers have learned that the Hamlet of Sachs Harbour has been accepting construction and demolition materials at the solid waste site despite previously noted capacity limitations. This causes further capacity issues and poses financial and environmental liability for the Hamlet. As a result, this is a violation of Part D, Item 12, of the Water Licence.

As a duly appointed Inspector under the Waters Act S.N.W.T. 2014,c.18, I request that immediate action be taken in order to prevent further open burning of mixed garbage at the solid waste site. Additionally, I request that the Hamlet stops accepting industrial construction and demolition materials at the solid waste site until an updated Municipal Solid Waste Operations and Maintenance Plan is submitted to the Inuvialuit Water Board and approved.

It is the Hamlet's responsibility to ensure compliance with all of the terms and conditions of its Water Licence. Environment and Natural Resources is available to assist you in achieving this goal.

A copy of this report will be sent to the Inuvialuit Water Board for their review and public records. If you have any questions/concerns regarding the enclosed, please do not hesitate to contact me at (867) 678-6676.

Sincerely,



Philippe Thibert-Leduc
Water Resource Officer
Inuvik Region

Cc: Stephen Charlie – Superintendent – Inuvik Region – ENR

Enclosure: Municipal Water Licence Inspection Report (6 pages)

LICENCE #:	N7L3-1531	EXPIRY DATE:	November 20, 2017
LICENCEE:	Hamlet of Sachs Harbour	PREVIOUS INSPECTION:	August 08, 2013
COMPANY REP:	Stephen Wylie SAO	INSPECTION DATE:	August 20, 2015

WATER SUPPLY

Source:	Water Lake	Quantity Used:	Approximately 4,000m ³
Owner/Operator:	Hamlet of Sachs Harbour	Meter Reading:	N/A ¹

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable N/I - Not Inspected

Intake Facilities	U ^{1,2}	Storage Structures	A ¹	Treatment Systems	A	Recycling	N/A
Flow Meas. Device	N/A ¹	Conveyance Lines	A	Pumping Stations	A	Chem. Storage	A ¹
Water Delivery Truck	U ⁴					Modifications	N/A

Water Supply Comments:

- Water Lake was clean looking with no floating garbage and no obvious signs of human activity surrounding the lake, other than the occasional ATV and snowmobile. However, empty shotgun shells were observed close to the Water Supply Facility (WSF) which indicates that the site may be used for hunting or target shooting. This type of activity is highly discouraged around any water source as it causes unnecessary risk to the quality of the Hamlet's source water. There needs to be more monitoring of human activities surrounding Water Lake and/or public awareness to that effect.
- ¹The water operator was not available during the visit so it is unclear if daily logging/record-keeping of water intake, water analysis and routine checks are being conducted. However, based on the inspection of the WSF, it appears that this is not being done regularly and that the general condition of the facility is suffering (e.g. lights inside the WTP did not work, there is lots of clutter on the floor, and general poor cleanliness all around). Flow measurement device was either not functional or could not be found at the time of the inspection.
- ²It is important to note that all rooms/storage areas at the WTP were unlocked and open access to anyone. It should be a Hamlet employee's responsibility to see that the entire area is locked when not in use by the Water Operator as there are dangerous chemicals and equipment and especially given the fact that there are signs of human activity around the site.
- ³SAO mentioned that the water intake pipe has had to be tended to by divers a number of times over the years due to clogging issues. It appears that work has had to be done on the water intake pipe (exterior portion) (see figure 1). The Hamlet should work with the Department of Municipal and Community Affairs if they require further assistance in dealing with this issue and seek a more permanent solution.
- ⁴During the inspection of the potable water delivery truck, a large oil spill was observed. The truck was leaking inside the Hamlet garage at the time of the inspection (see figure 2). This appears to be an ongoing issue as there was a considerable amount of oil behind the potable water truck. It is the Hamlet's responsibility to see that such issues are resolved in a timely manner as soon as they are noticed. In addition, the cap was not set properly at the back of the truck which could lead to dirt/dust/oil contaminating the potable water storage compartment and domestic potable water storage tanks. Otherwise, the general condition of the truck seemed adequate.

WASTE DISPOSAL – SEWAGE

Disposal Method		Primary Treatment					
Mechanical	N	Camp Sump	N	Natural Water Body	Y	Wetland Treatment	Y
Continuous Discharge	N	Intermittent Discharge	N	Seasonal Discharge	Y	Land Spread	N
Accelerated Biological	N	Other	N/A				

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable N/I - Not Inspected

Discharge Quality	A	Decent Process & Structures	N/A	Discharge Measurement Device	A
Freeboard	N/A	Sludge Disposal Method	N/A		
Periods Of Discharge	Does not appear to discharge other than in Spring, when water levels are high			SNP Samples Collected	No

Effluent Discharge Rates	Natural outflow into the wetland
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Sewage Comments:

- Erosion issues reported during the last inspection have been resolved since then. No sign of erosion was observed where the sewage discharge chute begins.
- Good drainage/depression and stable structure of the truck pad by the sewage discharge chute was evident. No damage to chute or signs of spillage observed.
- Signage was on site informing people that this lake is used for sewage disposal, at the entrance of the access road.
- No obvious signs of human activity could be observed around the natural lake.
- Quality (colour/smell/turbidity) of the water seemed adequate. No floating wastes on the lake.
- Fluorescent cone by the sewage discharge chute was in poor condition and lying flat on the ground – it should be replaced and secured into place, upright so that the sewage truck driver does not miss it while backing up. Cement blocks were in place to prevent truck from backing up into the chute.

WASTE DISPOSAL – SOLID WASTE

Disposal Method		Landfill					
Open Dump	N	Landfill	Y	Burn & Landfill	U ^{1,2,3}	Underground	N
Offsite Removal	N	Other	N/A				
Owner / Operator	Hamlet of Sachs Harbour						

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

Runoff Diversion	N/A	SNP Samples Collected	No
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Solid Waste Comments:

- ¹There was very recent evidence of open burning of mixed garbage at the time of the inspection in a non-designated area and of non-authorized garbage which is not consistent with the terms and conditions of the Water Licence (see figure 3). I advise that all hamlet staff be made aware that this practice is not allowed as per the Department of Environment and Natural Resources (ENR) Regulations and Guidelines. Only paper products, paperboard packaging and untreated wood may be burned in a designated area at the SWDF. See the *Municipal Solid Wastes Suitable for Open Burning* document developed by ENR for more information.
- ²At the time of the inspection there was an upside-down oil drum that was stuck in what appeared to be recently disposed of construction materials (see figure 4). The area smelled strongly of hydrocarbons and there appeared to be hydrocarbons still in the drum. The landfill is filled with drums such as this and should not be accepting any industrial wastes in the future as it contributes to the eventual remediation/disposal costs that the Hamlet will have to manage eventually.
- ³All other hazardous materials (e.g. several oil drums, paint, etc.) should be stored in secured, designated areas at the landfill or at the Hamlet garage. Please see ENR's guidelines on hazardous waste management for more information.
- Empty shotgun shells were observed all around the landfill. The Hamlet is advised to control access and monitor the landfill as much as possible so that no shooting occurs at the site, which could lead to environmental health and safety issues.
- The fenced areas appear to be in good condition and are controlling windblown garbage from escaping the SWDF, as little garbage could be seen outside of the area at the time of the inspection despite strong winds.
- The SWDF sign at the entrance was flat on the ground; it needs to be put upright so that it is visible, and secured into place.
- Large quantities of seemingly contaminated soil are stored at the landfill. This soil needs to be stored in a designated area that is bermed and set on a liner to prevent any run-off from entering the surrounding environment and properly disposed of (e.g. sent out externally or farmed once proper approvals are obtained). I advise working with ENR on this issue as we can provide options for proper storage and remediation and assistance throughout the entire process.
- In the short term, all hazardous wastes (e.g. oil drums in poor condition) should be segregated and consolidated into secured containers (e.g. large plastic pails). Once the oil drums are emptied out and dry, they can be crushed and landfilled.
- The Hamlet stores its car batteries near the Hamlet garage. Many batteries could be seen outside at the time of the inspection, outside and completely uncovered. They should be kept in a dry area and covered from the sun. Good condition units can be kept on wooden pallets at a minimum, and damaged/leaky units should be kept in plastic pails. For more information, see ENR's *Guideline for the Management of Waste Batteries* and contact ENR for assistance.
- As has been mentioned in past inspection reports, there needs to be better/further segregation of waste. Signage would help and educate residents as to where to dispose of their wastes.

FUEL STORAGE

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable N/I - Not Inspected

Owner:	Hamlet of Sachs Harbour	Operator:	Hamlet of Sachs Harbour	Condition of tanks:	A
Berms & Liners	A ¹	Water within Berm:	U	Evidence of Leaks:	None
Drainage Pipes	N/A	Pump Station and Catchment Berm	A	Runoff Diversion	N/A
Pipeline Condition	A				

Fuel Storage Comments:

- ¹No leaks observed anywhere, however there was water and rust at the bottom of the secondary container underneath the backup generator’s fuel tank. Water in the secondary container is a concern as it displaces part of the emergency spill capacity (see figure 5).

SURVEILLANCE NETWORK PROGRAM

Samples Collected Hamlet	No samples have been taken/reported for the last few years				
Samples Collected ENR	Samples postponed to next year due to time constraints while in Sachs Harbour				
Signs Posted: SNP	N/A – all that is needed is a map with sampling sites, GPS coordinates etc. This has yet to be done	Warning	Seen at Solid Waste Disposal Facility, not seen at Sewage Disposal and Water Supply Facilities		

Surveillance Network Program Comments:

- As has been stated in past inspection reports, warning signage needs to be posted for the Sewage Disposal Facility so everyone knows about the hazards that exist. As well there should be signs for the Water Supply Facilities as this has to do with the Hamlet’s water supply and there are dangerous chemicals and equipment present. Failing to do this is a violation of Part B: General Conditions, Item 5, of the Water Licence.
- Sampling by the Hamlet has not occurred, which is a violation of Part B: General Conditions, Item 2, of the Water Licence.
- Since SNP signage is no longer required it is now necessary for the Hamlet to provide a map or drawing indicating the locations of the SNP sampling locations. Contact the Water Resource Officer or the Inuvialuit Water Board if you require assistance with this. Failing to provide this document is a violation of Part B: General Conditions, Item 4, of the Water Licence.

GENERAL CONDITIONS/REPORTS/PLANS

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable N/I - Not Inspected

C&R Plan	N/A	Records & Reporting	N/A	Final Report	N/A
Geotechnical Inspection	N/A	Posting, Signage	A ²	Contingency Plan	A ³
Restorations Activities	N/A	Spills	A ³	O&M Plan	N/A
Maintenance	U ¹	Modifications	N/A	Annual Report	U ⁴

General Condition Comments:

- ¹There are a number of high priority issues, especially with regards to the general maintenance of the WTP and the SWDF as reported in this inspection report.
- ²Postings and signage was generally acceptable, however there could be additional labeling put into place at the SWDF so that residents and hamlet staff know where to deposit certain types of wastes, working towards proper segregation and making it easier to maintain an inventory.
- ³A number of newly acquired spill emergency response kits could be observed while touring the municipal facilities at the time of the inspection. The Hamlet is to be commended for implementing key elements of its Spill Contingency Plan as per Part E: Conditions Applying to Operation and Maintenance, Item 4 of the Water Licence. It is recommended that staff be familiar with their contents and trained on how to use the materials in case of an emergency. Contingency Plan could also use an update (e.g. map location of spill response kits).
- The Hamlet is to be commended for acting in a timely manner in dealing with issues regarding the Water Supply Facilities (WSF) water intake pipe. Given the number of incidents that have occurred over the last few years, if this is not the case already, it is recommended that a back-up plan be in place so that the Hamlet does not experience a shortage of clean water for its residents.

- The Hamlet is to be commended for resolving the erosion/stability issues observed during the last inspection on file from August 2013.

Missing Deliverables:

- ⁴If data is limited the **Annual Reports** should be sent with what information is known so there are records available. The last Annual Report on file was submitted for 2010. An Annual report for 2014 was due on April 30th, 2015. Failure to submit an Annual Report with the Board is a violation of Part B: General Conditions, Item 1, of the Water Licence.
- A **Sewage Treatment Plan** was due by June 30th, 2013. This is a violation of Part E: Conditions Applying to Operation and Maintenance, Item 2.
- A **Municipal Solid Waste Operations and Maintenance Plan** was due June 30th, 2013. This is a violation of Part E: Conditions Applying to Operation and Maintenance, Item 3.

Incidents Involving the Hamlet’s Facilities:

- **SWDF:** It appears the Hamlet has been accepting industrial wastes at the SWDF (see figure 4). This is concerning for many reasons. Firstly, the Hamlet should consider its ongoing capacity issues with regards to their landfill. Secondly, the Hamlet is not a registered receiver of hazardous wastes with ENR and should not accept any industrial wastes unless appropriate proof can be provided to show that they are non-hazardous in nature. If the Hamlet intends to re-use materials from a demolition site, then written proof should be required (e.g. certified lab results), and all materials meant for re-use should be stored at the Hamlet garage as opposed to the landfill in the meantime. The Hamlet needs to submit a Municipal Solid Waste Operations and Maintenance Plan before it continues accepting industrial construction and demolition materials, and this updated plan needs to be consistent with Municipal and Community Affairs' Guidelines for the Planning, Design, Operations and Maintenance of Modified Solid Waste Sites.
- **SDF:** A Remedial Action Plan report shared with ENR and dated July 2015, states that approximately 900L of heating was released onto the ground surface at Housing Unit 39, Lot 60, in Sachs Harbour between April 29 and May 16, 2015. According to the report, all excess water that was removed from the site (approximately 5 to 6 truckloads) was emptied in the local sewage lake, however the report does not specify who is responsible for disposing of the excess water. In any case, if this excess was contaminated with hydrocarbons at the time, disposing of it in the SDF should not have been permitted and would be violation of the Water Licence. I advise that the Hamlet follow-up on this matter with the Hamlet staff and Public Works Services who is responsible for the housing unit where this occurred. Water contaminated with hydrocarbons should be contained in properly sealed and secured containers until it can be shipped externally for remediation.

Water Licence Comments:

- Water Licence N7L3-1531 is set to expire on November 20, 2017, just over 2 years from this inspection report. Please note that as per Item 4, under “General Procedures for the Administration of Licences Issued Under the Northwest Territories Waters Act in the Northwest Territories”, it is the responsibility of the Licensee to apply to the Water Board for renewal of the Licence. It is recommended that a renewal application be submitted at least 8 months in advance of the Licence expiry date. It is important to note that past performance of the Licensee, new documentation and information, and any other supporting documents including the findings of this inspection report will be used to determine the terms and conditions of the Licence renewal. I advise that the Hamlet prioritize issues and concerns flagged in this inspection report in preparation for the renewal of the Water Licence, while there is still ample time to do so.
- Recommendation in the short term:
 - o Review general terms and conditions of the Water Licence
 - o Have staff become familiar with general terms and conditions of the Water Licence
 - o Identify necessary training, if any, for staff
 - o Prepare for SNP sampling as per the terms of the Water Licence in time for spring and summer 2016
 - o Prioritize non-compliant items flagged in this inspection report
- Recommendations in the long term:
 - o Prepare for Water Licence renewal application and work towards becoming compliant
- Please note that as of April 1, 2014, some information has changed under Item 6 of Water Licence N7L3-1531, under “General Procedures for the Administration of Licences Issued Under the Northwest Territories Waters Act in the Northwest Territories”. In the future, you may use the following contact information for the Analyst and the Inspector:

ANALYST:

Analyst	Phone: (867) 765-6645
Taiga Environmental Laboratory	Fax: (867) 920-8740
Department of Environment and Natural Resources	Email: taiga@gov.nt.ca
Government of the Northwest Territories	
4601 - 52nd Avenue	
Yellowknife NT X1A 2L9	

INSPECTOR:

Philippe Thibert-Leduc	Phone: (867) 678-6676
Water Resource Officer	Mobile: (867) 678-0623
Department of Environment and Natural Resources	Fax: (867) 678-6699

Date:	August 20, 2015	Licence #:	N7L3-1531	Page No:	4
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NON-COMPLIANCE/VIOLATIONS OF ACT OR LICENCE

Part B: General Conditions, Item 1,

"The Licensee shall file an Annual Report with the Board not later than April 30th of the year following the calendar year reported..."

Part B: General Conditions, Item 2,

"The Licensee shall comply with the "Surveillance Network Program" annexed to this Licence, and any amendment to the said "Surveillance Network Program" as may be made from time to time, pursuant to the conditions of this Licence."

Part B: General Conditions, Item 4,

"The Licensee shall, within 60 days of the issuance of this Licence, submit to the Board for approval a map or drawing indicating the location of all Surveillance Network Program sampling stations, with associated GPS coordinates."

Part B: General Conditions, Item 5,

"The Licensee shall, within 60 days of issuance of this Licence, post signs in the appropriate areas to inform the public of Water Supply and Waste Disposal Facilities. Additional signage at the Solid Waste Disposal Facility shall clearly indicate where different waste streams collected by the Hamlet should be deposited. All postings shall be located and maintained to the satisfaction of an Inspector."

Part D: Conditions Applying to Waste Disposal, Item 7,

"The Licensee shall notify an Inspector when any contaminated soil and/or contaminated snow is deposited at the Solid Waste Disposal Facilities."

Part D: Conditions Applying to Waste Disposal, Item 8,

"The Licensee shall contain all contaminated soil and/or contained snow in such a manner as to minimize the potential for migration of contaminants into any Waters, to the satisfaction of an Inspector"

Part D: Conditions Applying to Waste Disposal, Item 9,

"The Licensee shall segregate and store hazardous Waste in a designated contained temporary storage area, to the satisfaction of an Inspector."

Part D: Conditions Applying to Waste Disposal, Item 10,

"The Licensee shall not open burn solid or liquid Waste, with the exception of paper products, paperboard packaging and untreated wood in accordance with the guideline *Municipal Solid Wastes Suitable for Open Burning*, developed by the GNWT Department of Environment and Natural Resources."

Part E: Conditions Applying to Operation and Maintenance, Item 2,

"The Licensee shall submit to the Board for approval by June 30, 2013, a Sewage Treatment Plan..."

Part E: Conditions Applying to Operation and Maintenance, Item 3,

"The Licensee shall submit to the Board for approval by June 30, 2013 a Municipal Solid Waste Operations and Maintenance Plan..."

Surveillance Network Program, Part C, Item 1,

"The Licensee shall measure and record in cubic metres the monthly and annual quantities of Sewage discharged to the Sewage Disposal Facilities' lagoon.

Surveillance Network Program, Part C, Item 2,

"The Licensee shall measure and record in cubic metres the monthly and annual quantities of water pumped from SNP Station Number 1531-1 for municipal purposes.

Inspector's Signature:



Inspection Images:

Figure 1

Water intake pipe was functional at the time of the inspection but appears to be failing regularly over the last few years.



Figure 2

Water delivery truck was leaking oil at the time of the inspection.



Figure 3

Evidence of recently conducted open burning of mixed garbage in a non-designated area and of non-authorized garbage.



Figure 4

Upside-down oil drum that was stuck in what appeared to be recently disposed of construction materials.



Figure 5

There was water and rust at the bottom of the secondary container underneath the backup generator's fuel tank, however no leaks observed. Water in the secondary container is a concern as it displaces part of the emergency spill capacity.

