

(In reply, please refer to)

Our File: 15-1920

October 14, 2015

Inuvialuit Water Board
Professional Building- Suite 302, 125 Mackenzie Road
P.O. Box 2531
Inuvik, NT X0E 0T0

Attention: Dr. Bijaya Adhikari, Science and Regulatory Coordinator

RE: N7L3-1619 – Hamlet of Paulatuk, Municipal Water Licence Renewal Application

Dear Dr. Bijaya:

On behalf of the Hamlet of Paulatuk, we are pleased to submit a letter addressing the gaps identified in the Hamlet of Paulatuk's Water Licence renewal application submitted on September 21, 2015. Changes made address comments previously received from the Inuvialuit Water Board, as well as other minor changes including:

1. A description of any public consultation and data gathering methodologies that has been completed from the community to obtain feedback on the proposed undertaking.

Based on discussions with the Inuvialuit Water Board, it was decided that no public consultation was required as part of the water licence renewal application process, therefore the Hamlet of Paulatuk did not conduct a public consultation.

2. Map 1 of the Sewage Treatment Facility Operation and Maintenance (O&M) Manual and Map 2 of the Solid Waste Facility O&M Manual indicate the locations of Surveillance Network Program (SNP) sampling stations in Universal Transverse Mercator (UTM) coordinates. A revised map indicating the location of all SNP sampling stations including raw water supply sampling station is requested to be submitted by utilizing Google Earth latitude and longitude coordinates as the Global Positioning System (GPS) points.



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Limited**



Updated maps indicating the locations of SNP sampling stations for both the sewage treatment facility and solid waste facility have been created. These maps indicate the latitude and longitude coordinates as determined by Google Earth. A new map has been included which shows the SNP sampling station for the raw water supply at the truck infill station. The coordinates as the GPS points for all SNP stations are as follows:

SNP Sampling Stations	Latitude	Longitude
Sewage Lagoon Stations		
Station WE-1	69°20'22.32"N	124° 7'18.62"W
Station WM-1	69°20'18.18"N	124° 7'10.94"W
Station 1619-2	69°20'19.45"N	124° 6'58.73"W
Solid Waste Facility Stations		
Station 1619-3	69°20'25.00"N	124° 6'35.35"W
Station OWL-1	69°20'25.68"N	124° 6'13.73"W
Raw Water Supply Station		
Station 1619-1	69°19'56.24"N	124° 2'57.43"W

These three maps can be found at the end of this letter. Please note that stations 1619-1, 1619-2 and 1619-3 are described in the Hamlet's current water licence. Station WE-1, Station WM-1 and Station OWL-1 are proposed sampling sites that the Hamlet would like to monitor in addition to the currently established SNP sampling stations.

3. Pertaining to the Spill Contingency Plan:

- a. **Statement under Section 1: "INTRODUCTION AND PROJECT DETAILS" (page 1, paragraph 2, line 1), is to be revised as: Under the *Waters Act (WA)* and Section 5(2) (g) of the *Waters Regulation (WR)*.....;**

The Spill Contingency Plan will be revised to include the above-mentioned statement.

- b. **Distribution list of plan recipients as per section 1.3 of the Spill Contingency Plan template;**

The distribution list of plan recipients, as per section 1.3 of the Spill Contingency template is as follows:

Organization	Title	Phone
Department of Fisheries and Ocean Canada	Inuvik Office	(867) 777-7500
Department of Lands	Inuvik Office	(867)-777-8900
Environment and Natural Resources	Philippe Thibert-Leduc - Water Resources Officer	(867) 678-6676
Environment and Natural Resources-Regional Office	Stephen Charlie - Superintendent	(867) 678-6690
Environment and Natural Resources	Nathen Richea- Manager, Water Regulatory	(867) 765-6775
Inuvialuit Water Board	Main Office	(867) 678-2942
Hamlet of Paulatuk	Greg Morash - Supervisor	(867) 580-3531
Dillon Consulting Limited	Jennifer Spencer-Hazenberg - Project Manager	(867) 920-4555

This distribution list will be included in the Spill Contingency Plan.

c. Material Safety Data Sheets (MSDS) for all Hazardous Material in an Appendix;

The MSDS for all Hazardous Material will be included in the Spill Contingency Plan. The MSDS cannot be provided at this time as we do not have a list of specified hazardous materials. The Hamlet is in the process of contacting the suppliers to obtain this information.

d. If the public may be impacted by a spill, include notification procedures to alert the public as per Guidelines for Spill Contingency Planning created by Indian and Northern Affairs Canada, April 2007;

Process for staff response to media and public inquiries: The Hamlet of Paulatuk has established procedures for dealing with media and public inquiries. All inquiries are to be directed to the Supervisor, Greg Morash, at the Paulatuk hamlet office. If the supervisor is not available, there will be another staff member available to act in this position. If a reporter or member of the public arrives at the site unexpectedly, the official in charge of responding to their questions will be the Hamlet Supervisor or designate. If a spill has occurred, a NWT Spill Report needs to be filled out. This information is available for the public to view upon request by contacting the NWT Spill Line or by viewing the GNWT Hazardous Materials Spills Database online at http://www.e-engine.ca/eps_spillreport/.



- e. **Description of the record keeping procedures and list of employees who have received training including dates.**

Records are maintained at the Hamlet office. The Hamlet has the capacity to respond to minor spills. The foreman for housing deals with minor spills since he has spill containment training. The Hamlet will follow-up to determine the specific course taken and the date of the training. For larger spills, a Spill Response Specialist is brought in to the Hamlet to help manage the clean-up in these instances.

4. With regard to the Operation and Maintenance (O&M) Manual for Sewage Disposal Facilities:

- a. **On page 11 and 13 of the questionnaire the functions such as trucked sewage collection and disposal and solid waste collection and disposal are included. If these functions are performed by contractors or sub-contractors, provide name and address of those contractors;**

These functions are not performed by contractors or sub-contractors as the Hamlet utilizes its own forces.

- b. **Quantity of sewage generation and quality of raw sewage if data is available;**

It has been estimated that the Hamlet generates approximately 11,000 m³ of sewage on an annual basis. There is currently no data available regarding the quality of raw sewage at the Hamlet's lagoon.

- c. **Description of sewage collection trucks such as total number in operation and capacity of each truck;**

The sewage collection trucks run 7 days a week, and schedule the household collection based on household size. For example, households with more than 10 people may need a pumpout every day, while smaller households only need a pumpout twice a week. The Hamlet currently has 2 sewage collection trucks in operation, with estimated capacities of 3500 L each.

- d. **Indicate the frequency of each of the following activities at the Sewage Disposal Facilities:**

- i. **Inspection of inlet and truck discharge structures for damage, blockage, settlement or erosion and their maintenance;**

This is completed on a monthly basis.



ii. Monitoring of the colour of the liquid in the lagoon as an indication of performance;

This is completed on a monthly basis.

iii. Measurement of sludge levels;

This does not currently occur at the Paulatuk Sewage Treatment Facility.

iv. Removal and disposal of accumulated sludge including location; and

This does not currently occur at the Paulatuk Sewage Treatment Facility.

v. Monitoring for damage to fencing/signage and gate.

This is completed on a monthly basis.

5. Pertaining to the O&M Manual for Solid Waste Disposal Facilities:

a. Percentage of each fraction of Municipal Solid Waste (MSW) main stream if data is available; Description of solid waste collection trucks such as total number in operation, capacity of each truck; and

There has not been a waste composition study done at the Paulatuk Solid Waste Facility. However, the *Guidelines for the Planning, Design, Operations and Maintenance of Modified Landfill Sites in the NWT* (2003) has provided a break-down of the typical waste composition for solid waste facilities in the NWT and it has been assumed that the Paulatuk Solid Waste Facility would have a similar composition. The typical modified landfill waste composition is as follows:



Type of Waste	Percentage by Weight
Food wastes	20.3
Cardboard	9.8
Newsprint	2.4
Other Paper Products	14.8
Cans	4.4
Other Metal Products	6.2
Plastic, Rubber, Leather	14.0
Glass, Ceramics	5.7
Textiles	3.8
Wood	9.9
Diapers	3.8
Dirt	4.9
Total	100.0

* Details may not add to totals due to averaging and rounding.

The Hamlet currently has 1 solid waste collection truck in operation, with an estimated capacity of 3.5 m³.

b. Indicate the frequency of the inspection of dams, dykes, berms and drainage courses and their maintenance.

These inspections are conducted on a monthly basis. The Hamlet is currently having the site assessed for improvements and recommendations, in order to improve their solid waste facility operations.

Should you have any questions, please direct them to Jennifer Spencer-Hazenberg: jspencer@dillon.ca, 920-4555 ext. 4110.

Yours sincerely,

DILLON CONSULTING LIMITED

Jennifer Spencer-Hazenberg

Project Manager

Copy: Greg Morash
Hamlet of Paulatuk, Supervisor

Darnley Bay

Old Water Lake

STATION WE-1
Lat 69°20'22.32"N, Long 124° 7'18.62"W

STATION 1619-2
Lat 69°20'19.45"N, Long 124° 6'58.73"W

Sewage
Lagoon

STATION WM-1
Lat 69°20'18.18"N, Long 124° 7'10.94"W



PAULATUK
SEWAGE AND SOLID WASTE SITE ASSESSMENT

**SEWAGE LAGOON
SNP SAMPLING LOCATIONS**
MAP 1

-  ROADS
-  SOLID WASTE FACILITY
-  DRAINAGE PATHS

SCALE 1:3,000

0 25 50 100 Meters

MAP DRAWING INFORMATION:
DATA PROVIDED BY GNWT

MAP CREATED BY: PMH
MAP CHECKED BY: AC
MAP PROJECTION: NAD 1983 UTM Zone 10N

FILE LOCATION: \\DILLON.CA\DILLON_DFS\SASKATOON\CAD\GIS\151921_SEWAGE AND SOLID WASTE SITE ASSESSMENT\PAULATUK MAP 1 SEWAGE LAGOON SNP SAMPLING LOCATIONS .MXD



PROJECT: 151921
STATUS: DRAFT
DATE: 2015-07-23

Darnley Bay

STATION 1619-3
Lat 69°20'25.00"N, Long 124° 6'35.35"W

STATION OWL-1
Lat 69°20'25.68"N, Long 124° 6'13.73"W

Old Water Lake

Waste Pile

Sewage
Lagoon



PAULATUK
SEWAGE AND SOLID WASTE SITE ASSESSMENT

**SOLID WASTE FACILITY
SNP SAMPLING LOCATIONS**
MAP 2

-  ROADS
-  SOLID WASTE FACILITY
-  DRAINAGE PATHS

SCALE 1:1,750
0 12.5 25 50 Meters



MAP DRAWING INFORMATION:
DATA PROVIDED BY GNWT

MAP CREATED BY: PMH
MAP CHECKED BY: AC
MAP PROJECTION: NAD 1983 UTM Zone 10N

FILE LOCATION: \\DILLON.CA\DILLON_DFS\SASKATOON\CAD\GIS\151921 SEWAGE AND SOLID WASTE SITE ASSESSMENT\PAULATUK MAP 2 SOLID WASTE FACILITY SNP SAMPLING LOCATIONS .MXD



PROJECT: 151921
STATUS: DRAFT
DATE: 2015-07-30

Image retrieved 2015-07-23
Photos come from the Department of Municipal and Community Affairs

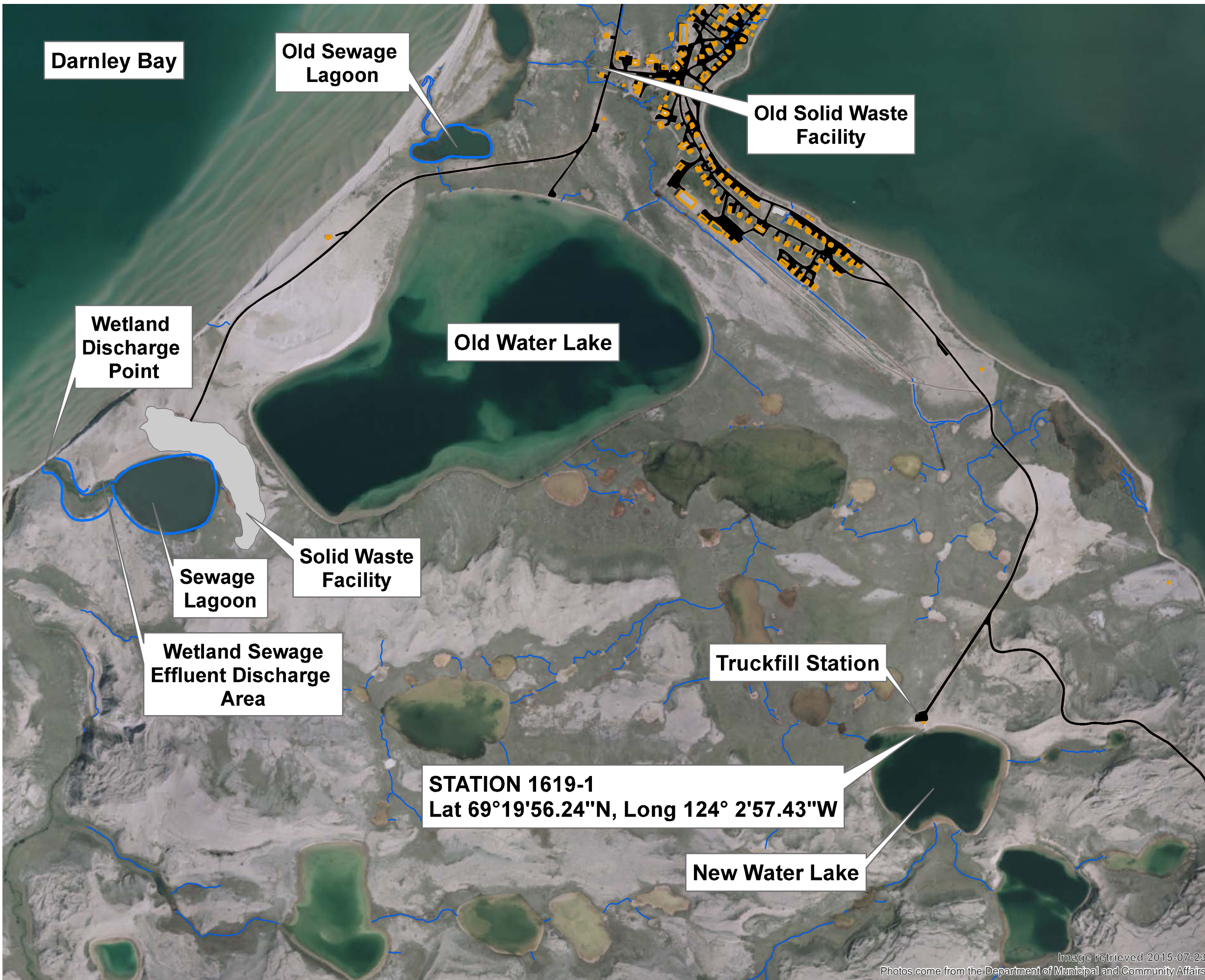


Image retrieved 2015-07-23
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PAULATUK
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FIGURE 2 SITE OVERVIEW

-  BUILDING FOOTPRINT
-  ROADS
-  SOLID WASTE FACILITY
-  DRAINAGE PATHS

SCALE 1:12,000

0 0.1 0.2 0.4 km

MAP DRAWING INFORMATION:
 DATA PROVIDED BY GNWT

MAP CREATED BY: PMH
 MAP CHECKED BY: AC
 MAP PROJECTION: NAD 1983 UTM Zone 10N

FILE LOCATION: \\DILLON.CA\DILLON_DFS\SASKATOON\CAD\GIS\151920 WATER LICENCE RENEWAL\PAULATUK\PAULATUK FIGURE 2 SITE OVERVIEW .MXD



PROJECT: 151920
 STATUS: DRAFT
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