



# Sahtu Land and Water Board Staff Information Report

<b>Division:</b> Waters Program	<b>Report No. 1</b>
<b>Date Prepared:</b> November 7, 2019	<b>File:</b> S18L3-003
<b>Meeting Date:</b> November 15, 2019	
<b>Subject:</b> Public review completed 2018 Annual Water Licence Report	

## 1. Purpose/Report Summary

The purpose of this Report is to present to the Sahtu Land and Water Board for information on the public review completed **2018 Annual Report for the Municipal Licence (S18L3-003) of the Town of Norman Wells.**

Although formal Board approval is not required under the Licence, the Board must be satisfied that the Licensee has met the requirements of the Licence.

## 2. Background

In general, Annual Reports for water licences (also permits) are expected to be submitted by March 31, every year, reporting about the project activities of the previous calendar year. The Town of Norman Wells (Licensee) is expected to submit Annual Reports by March 31, every year, as per the Licence (S18L3-003) Part B, Condition 21 and Schedule 1, Condition 1.

The annual water licence report of S18L3-003 was reviewed as given in the timetable below.

### 2.1 Public Review Timeline for the Annual Report

Licence/Permit	Report Received Date	Report Distributed (ORS)	Distribution List	Review Comments Due Date	Proponent Response Due Date	Public Review Outcome
<b>S18L3-003</b>	June 5_19	Oct 8_19	Tulita Dist. (SLWB)	Oct 25_19	Nov 5_19	No comments received

(Recorded in Review Comment Table: Attachment 2).

### 3. Discussion

#### 3.1 Overview - S18L3-003– Municipal Water Licence of the Town of Norman Wells

The Licence S18L3-003 entitles the Town of Norman Wells (Licensee) to use Water to dispose of Waste for the purpose of a municipal undertaking at the Town of Norman Wells, Northwest Territories.

Activities under the licence:

1. **Direct water use** - water withdrawal from the Mackenzie River, treatment, storage and distribution for community use.
2. **Sewage disposal** - disposal of sewage generated by the community in the Sewage Lagoon at Seepage Lake.
3. **Solid waste disposal** - disposal of solid waste generated by the community at the Solid Waste Disposal Facility.

#### 3.2 Summary and Review of 2018 Annual Water Licence Report (S18L3-003)

The 2018 Annual Water Licence Report (Attachment 1) provides information on (annual reporting requirements as per the License Schedule 1, Condition 1 are bolded and italicized; reporting deficiencies are underlined):

- a) ***The monthly and annual quantities in cubic metres of fresh water obtained from all sources:*** 95837 m<sup>3</sup> of water used in the year 2018 (avg: 7986 m<sup>3</sup>/ month); within the licence limit of 250,000 m<sup>3</sup>/ year from the Mackenzie River;
- b) ***The monthly and annual quantities in cubic metres of all sewage discharged to Seepage Lake:*** 95837 m<sup>3</sup> of sewage deposited in the year 2018 (avg: 7986 m<sup>3</sup>/ month). No sludge was removed from the primary sewage wells or from the seepage lake. Also, there was no decanting at the seepage lake.
- c) ***A summary of all Modifications and/or major maintenance work carried out on the water intake infrastructure, Water Treatment, Storage and Distribution Facilities, Solid Waste Disposal Facilities and the Sewage Lagoon, including all associated structures:*** A new sewer lift station was built and commissioned in 2018.
- d) ***Tabular summaries of all data generated under the Surveillance Network Program (SNP):*** Tabular summaries were provided as follows:
  - i) Electronic and tabular summaries of all information generated under Annex A (of the Licence), Part B (list of 7 SNP sites and monitoring requirements); samples were not collected from SNP stations viz. S07L3-002 (4) and S07L3-002 (5) as these groundwater monitoring stations were only installed in 2018 and sampling was scheduled only in 2019. Following reporting deficiencies for water sampling data was noted (reference - **SNP site descriptions and monitoring requirements - Annex A, Part B, item 3**) : SNP site S07L3-002 (1) (recorded in Table 4 of the Annual Report) - parameters viz. temperature, conductivity, ammonia nitrogen, total nitrogen, nitrite-nitrogen, nitrate-nitrogen, total organic carbon and total phosphorous were not determined; SNP sites S07L3-002 (2) and S07L3-002 (3) (recorded in Table 7 of the Annual Report) - parameters viz. temperature,

ammonia nitrogen, total nitrogen, nitrite-nitrogen, nitrate-nitrogen, total organic carbon, total phosphorous, total silver and total thallium were not determined; SNP sites S07L3-002 (6) and S07L3-002 (7) (recorded in Table 6 of the Annual Report) – SNP site S07L3-002 (6) was discontinued by the water licence. The only reporting requirement is for SNP site S07L3-002 (7), which is monthly and annual monitoring of volume of water dispensed from the pumphouse for town use. This data was reported as a general annual reporting requirement as section 1 of the report, but not identified as SNP data. Instead, Table 6 of the report gives water quality data, which is not mandated by the water licence. Also, interpretation of the sampling results was not provided (as per Licence Annex A, Part A (SNP reporting requirements), Item 2 (a));

- ii) Tabular summary of 2018 monitoring results from SNP station S07L3-002 (1) (Effluent from wastewater treatment system; effluent quality criteria provided in Licence Part D, Condition 5) were provided as “Table 4” in the Annual Water Licence Report. Average concentration of Oil and Grease as wells as Effluent Quality Criteria for “CBOD” were not recorded as per Part D, Condition 5 and Annex A, Part A, Item 2 (b) of the Licence. 2018 effluent quality data were not compared against the data from the previous two consecutive years as per Annex A, Part A, Item 2 (b) of the licence. Also, Interpretation of the results were not provided;
- iii) **Annex A, Part A (SNP reporting requirements), Item 2 (c)** of the water licence requires an explanation of any actions taken in response to any exceedances of the Effluent Quality Criteria (EQCs). No statement was given in the Annual Report in this regard; anyhow, there were no exceedances in EQCs;
- iv) **Annex A, Part A, Item 2 (d)** of the water licence requires the information regarding the calibration and status of the meters and devices referred to in Part B, condition 19 of the Licence. No statement was given in the Annual Report in this regard;
- v) **Annex A, Part A, Item 2 (e)** of the water licence requires the exact coordinates of all SNP stations which were established within the year being reported, including an updated map identifying the locations of all the **SNP stations**. There are 7 SNP sites for the licence viz. S07L3-002 (1) (Effluent from wastewater treatment system), **S07L3-002 (2)** (Seepage Creek – Quarry Road), **S07L3-00 (3)** (Seepage Creek – Mackenzie Drive), **S07L3-002 (4)** (groundwater monitoring site), **S07L3-002 (5)** (groundwater monitoring site), **S07L3-002 (6)** (storm drain effluent upstream of water intake line), and **S07L3-002 (7)** (water dispensed from pumphouse for town use). The Licensee has provided a map of the 7 SNP sites, but the coordinates of the SNP sampling locations were not provided (map was not updated); and
- vi) **Annex A, Part A, Item 2 (f)** of the water licence requires a tabular summary of cumulative water use. Board staff is unsure of the definition of “Cumulative Water Use”. Staff will endeavour to understand the definition and will communicate with the Town of Norman Wells (licensee) for Licence compliance in this regard. No statement or information was given in the Annual Report for the SNP reporting requirement as stated above. Anyway, the monthly and annual quantities in cubic metres of fresh water obtained from all sources were recorded in the Annual Report as per Licence Schedule 1, Condition 1 (a).

- e) **Schedule 1 (where requirements for the annual report are listed), 1(e)** of the water licence requires information on ***Details, such as the underlying cause or corrective measures, regarding any sample exceedances or monitoring concerns***: No concerns or sample exceedances were raised/recorded; No statement was given in the Annual Report in this regard;
- f) **Schedule 1, 1(f)** of the water licence requires information on ***A summary of any Closure and Reclamation work completed during the year and an outline of any work anticipated for the next year***: No statement was given in the Annual Report in this regard;
- g) **Schedule 1, 1(g)** of the water licence requires information on ***A summary of any studies requested by the Board that relate to Waste disposal, water use or reclamation, and a brief description of any future studies planned***: No statement was given in the Annual Report in this regard;
- h) ***A list of spills or Unauthorized Discharges: Four unauthorized discharges occurred in 2018. The material spilled consisted of greywater and/or wastewater. Spills were reported to the Northwest Territories Hazardous Materials Spill Line with 24 hours and cleaned up promptly. Four spill report forms were attached with the Annual Report. The volume of material spilled ranged from 0.01 m<sup>3</sup> to 6 m<sup>3</sup>;***
- i) ***Copies of laboratory reports and QA/QC field sampling results***: Laboratory reports were attached with the Annual Report;
- j) ***Updates or revisions to the Operations and Maintenance Plans***: No updates or revisions to the O and M Plan;
- k) ***Updates or revisions to the Spill Contingency Plan***: No updates or revisions to the Spill Contingency Plan;
- l) ***Updates or revisions to the Closure and Reclamation Plan***: No updates or revisions to the Closure and Reclamation Plan;
- m) ***The monthly and annual quantities of sludge removed from Seepage Lake***: No sludge removed in 2018;
- n) **Schedule 1, 1(n)** of the water licence requires information on ***Sludge monitoring and management summary***: No statement was given in the Annual Report in this regard;
- o) **Schedule 1, 1(o)** of the water licence requires information on ***Semi-annual measurements of water levels at Seepage Lake***: No statement or information was given in the Annual Report in this regard; and
- p) ***Any other details on Water Use or Waste disposal requested by the as Board by November 1 of the year being reported***: No additional details were requested by the Board in 2018.

The 2018 Annual Water Licence (S18L3-003) Report raises no significant concerns, however, the report was not in full compliance with the reporting requirements of the Licence. The reporting deficiencies are underlined above. Board staff notes that the 2018 Annual Report appears to be prepared with an old template that does not cover all the reporting requirements; staff has prepared an appropriate template to help the Licensee to prepare the 2019 Water Licence Report (please see the attached letter of direction- Attachment 3).

### 3.3 Summary of Public Review of 2018 Annual Report (S18L3-003)

The Annual Report was distributed for public review and received no comments or concerns from stakeholders (Ref: Section 2.1). GNWT- Department of Environment and Natural Resources (GNWT-ENR) provided a formal response for the same (Attachment 2).

## 4. Conclusion and Recommendation

It was found that the Licensee has met most of the requirements for the Annual Reports of the Licence S18L3-003. The deficiencies in the reporting requirements are underlined in section 3.2.

Board staff recommend the Board to issue a Letter of Direction to the Licensee, advising to overcome the reporting deficiencies in the future (Draft Letter of Direction attached – Attachment 3).

## 5. Attachments

- 5.1 2018 Annual Water Licence Report (S18L3-003) (Hyperlink only);
- 5.2 Review Comment Table and Attached ENR Letter - 2018 Annual Report (S18L3-003) (Hyperlink only);
- 5.3 Draft Letter of Direction.

Respectfully submitted,



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Regulatory Specialist

Executive Director Comments:



Paul Dixon  
Executive Director