



Sahtu Land and Water Board

Staff Report

Division: Land and Water Program	Report No.: 4
Date Prepared: November 14, 2018	File No.: S17L8-003 & S17X-004
Meeting Date: November 19, 2018	
Subject: Transport Canada Norman Wells Airport Land Treatment Unit - Final Closure and Reclamation Plan (Version 2.0) for Board approval and 2017 Annual Report for Board Information	

1. Purpose/Report Summary

The purpose of this Report is to present to the Sahtu Land and Water Board for consideration:

- a) Final Closure and Reclamation Plan (Version 2.0);
- b) Summary of stakeholder review comments and Proponent responses for the Final Closure and Reclamation Plan;
- c) 2017 Annual Report; and
- d) Summary of stakeholder review comments and Proponent responses for the 2017 Annual Report.

2. Background

- **December 5, 2017** – Type A Land Use Permit S17X-004 was issued to Transport Canada, Prairie and Northern Region – Environmental Services, Contaminated Sites (TC) for installation (drilling) of three (3) groundwater monitoring wells around an existing Hydrocarbon Soil Contaminated Soil Treatment Facility (Landfarm) within municipal boundaries at the Norman Wells Airport. Type B Water Licence S17L8-003 was also issued and associated with the operation, maintenance, closure and reclamation of the Landfarm.
- **April 19, 2018** – The Board approved the Draft Closure and Reclamation Plan (version 1.0) and requested a revised version be submitted within 180 days with changes as recommended through the review process and as additional details required to finalize the Plan are available;
- **March 30, 2018** – The Board received the 2017 Annual Report;
- **April 3, 2018** – Review packages for the 2017 Annual Report were sent out electronically to members of the Tulita District Distribution List using the Online Review System;
- **May 1, 2018** – Reviewer comments received and deadline;
- **May 10, 2018** – Proponent responses received and deadline;
- **September 27, 2018** – The Board received the Final Closure and Reclamation Plan (version 2.0);
- **September 27, 2018** - Review packages for the Final Closure and Reclamation Plan were sent out electronically to members of the Tulita District Distribution List using the Online Review System;
- **October 18, 2018** - Reviewer comments received and deadline;

- **October 25, 2018** - Proponent response deadline and received;
- **November 19, 2018** – Presentation of Final Closure and Reclamation Plan and Annual Report to the Board

3. Discussion

3.1 Project Overview

In 2003 Transport Canada commissioned construction of a Land Treatment Unit (LTU) (Hydrocarbon Contaminated Soil Treatment Facility or Landfarm) at a location east of the airport runway as part of a remediation project associated with divestment of the Norman Wells Airport property to the Government of the Northwest Territories. The Landfarm will be undergoing decommissioning once the soil quality meets the applicable criteria. Treated soils will be deposited at the site and re-graded. BluMetric has supported the sampling and maintenance work that has occurred at the site during 2017/18. Blu Metric has conducted soil sampling to meet or exceed the minimum soil sampling requirements for LTU closure and to evaluate the soil quality based on the Treated Soil Criteria defined in the SLWB Type B WL S17L8-003. Throughout October and November 2018, soil samples have been evaluated against Licence criteria and submitted to the SLWB and the Inspector for confirmation prior to movement.

As part of the initial application, TC submitted a draft version 1.0 of the Closure and Reclamation Plan, noting that details about the extent of reclamation required and destination of treated soils was to be determined during further activities at the LTU in the Spring/Summer 2018. The Final Closure and Reclamation Plan would be updated in support of the Decommissioning Specifications to be developed prior to the Closure and Reclamation of the site. Closure and decommissioning of the LTU will require: soil disposal; water management; infrastructure removal; investigation of underlying soils; and site reclamation. The Board approved the draft Closure and Reclamation Plan (version 1.0) and requested that the Final Plan be submitted when information details were made available to finalize the Plan and that reviewer recommendations be addressed in the Final Plan submission.

3.2 Process Requirements and Comments

2017 Annual Report

Transport Canada, Prairie and Northern Region - Environmental Services, Contaminated Sites (TC) has submitted its [2017 Annual Water Licence Report](#) in accordance with Part B, Condition 11 of Licence S17L8-003. 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.

Closure and Reclamation Plan

Transport Canada, Prairie and Northern Region - Environmental Services, Contaminated Sites (TC) has submitted Version 2.0 of its [Closure and Reclamation Plan for the Norman Wells Airport Land Treatment Unit](#) in accordance with Part I, Condition 1 of Licence S17L8-003 and as per direction from the Board for revisions based on reviewer comments and recommendations made during the review of the draft Plan. The following revisions to the Closure and Reclamation Plan Version 1.0 were recommended and Board staff has reviewed the document for the items outlined:

Table 1 : Required Revisions to the Draft Closure and Reclamation Plan Version 1.0

Report Section	Recommended Change	Board Staff Review
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Section 2 Background, pg. 1	provide rationale for choosing a 2 meters depth for monitoring wells as appropriate.	Rationale provided
Section 2 Background, pg. 1	clarify that no historical data is available for the damaged groundwater monitoring wells	Clarification provided
Section 5.2 Water Management, pg. 6	Provide details on discharge of wastewater and contact water. Treated Soils - clarify if treated soil will be deposited at site or whether it may be transferred and deposited elsewhere.	Details and clarification provided
Section 5.2 pg. 6 Water Management	Mention that any water that is anticipated to be discharged from the LTU during closure if it does not meet the criteria will be stored in holding tanks	Clarification added
Section 5.3 pg. 8 - Infrastructure Removal	provide written approval from the Town of Norman Wells indicating the SWDF (landfill) is designed and licenced to dispose of the geotextile liner.	The liner will be disposed of at the licensed KBL Environmental Facility in Yellowknife
Section 5.4 Investigation of underlying Soils, pg. 8	clarify that test pits will be extended to 1-1.5m and will use field screening to guide sampling.	Clarification added
Section 5.4 pg. 8 – Investigation of Underlying Soils	include the additional information on potential locations to transfer and deposit contaminated soils should this option be required.	Transfer of contaminated soils, if needed, will be to the licensed KBL Environmental Facility in Yellowknife
Section 5.5 Site Reclamation pg. 9	seeding with local vegetation - provide a source of naturally occurring seeds endemic to the area to ensure good re-vegetation rates and no invasive species	Information provided
Section 9 Post-closure monitoring, pg. 10	clarify that monitoring will be conducted until the trend is seen over two consecutive seasons of stable groundwater measurements.	Clarification added

4.0 Other Agency Comments

The 2017 Annual Report and the Final Closure and Reclamation Plan were distributed at two separate times to members of the Tulita District Distribution List; which includes 29 review organizations, requesting a reply by May 1, 2018 for the Annual Report and October 11, 2018 for the Closure and Reclamation Report.

2017 Annual Report

Comments were received from Government of Northwest Territories – Environment and Natural Resources (ENR) and Sahtu Renewable Resources Board (SRRB) (Attachment 1).

ENR recommended that TC submit all water quality results in a more accessible file type (e.g. csv or xls) for the public registry and encourages the use of a standard metadata template which they attached. This has been a standard request from ENR for all authorizations and Board staff are recommending a standard condition be developed for Licences to address this request.

SRRB had several questions (comments 2,4,5) regarding the condition of the liner. Transport Canada responded with additional detail on the status of the LTU membrane, noting that the exposed areas of liner along the upper berms is degrading due to UV light and that care is being taken not to exacerbate this degradation.

SRRB was concerned that no groundwater monitoring was being performed (comment 1). TC responded that the new wells were installed in early 2018 which was not captured in the 2017 Annual Report and that monitoring is now occurring.

SRRB requested design drawings and details of the LTU (comment 3). TC responded that a topographical survey will be conducted during the 2018-19 field season to better record the LTU as it currently exists.

SRRB commented that the analytical plan for soils was comprehensive (comment 6).

SRRB requested that a more comprehensive analysis of the standing water should be conducted before any release (comment 7). TC clarified that prior to any dewatering and discharge, they will be conducting a comprehensive analysis of the ponded water as per the SLWB licence requirements.

Board staff are satisfied that the Licensee has met the requirements of the Licence through the 2017 Annual Report submission.

Final Closure and Reclamation Report (version 2.0)

Comments were received from Government of Northwest Territories – Environment and Natural Resources (Attachment 2).

ENR reviewed the document for the items listed in Table 1, above. They recommended that in future submissions by Transport Canada or its consultants, revision (or concordance) tables for new versions are included at the front of the document clearly outlining the sections that have been updated and how they have addressed the previous Board direction. TC noted the request.

5.0 Recommendations

Board staff recommend that the Board:

- Approve the Final Closure and Reclamation Plan for the Norman Wells Airport Land Treatment Unit (Version 2.0);
- Acknowledge that the 2017 Annual Report has met Licence requirements.

6.0 Attachments

- 6.1 Review Comment Table and ENR letter for the 2017 Annual Report
- 6.2 Review Comment Table and ENR letter for the Closure and Reclamation Plan
- 6.3 Draft Approval Letter

Respectfully submitted,



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