



Sahtu Land and Water Board

Staff Report

Division: Land and Water Program	Report No.: 2
Date Prepared: March 19, 2018	File No.: S17P-005 & S17L1-004
Meeting Date: March 26, 2018	
Subject: Closure and Reclamation Plan (Version 1.0) for the Saline River Line 21 Pipeline Integrity Digs Project submitted by Enbridge Pipelines (NW) Inc. for Board approval.	

1. Purpose/Report Summary

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

- Closure and Reclamation Plan, Version 1.0, submitted by Enbridge Pipelines (NW) Inc.;
- Summary of stakeholder review comments and Proponent responses; and
- Board staff recommendations.

2. Background

- February 7, 2018** – Type A Land Use Permit S17P-005 and Type B Water Licence S17L1-004 were issued by the Sahtu Land and Water Board (SLWB or Board) to Enbridge Pipeline (NW) Inc. (Enbridge) to support off right-of-way activities for the Saline River Line 21 Pipeline Integrity Dig Project in the Tulita District.
- February 22, 2018** – Enbridge submitted a request to the Board to extend the submission deadline for the Closure and Reclamation Plan on the due date set as 15 days post issuance, to February 28, 2018. The [extension was granted](#) by Board staff.
- February 28, 2018** - the Sahtu Land & Water Board (SLWB or Board) received the [Closure and Reclamation Plan](#) (CRP, Version 1.0) submitted to satisfy Part I, condition 1 of Licence S17L1-004.
- March 1, 2018** - Review packages were sent out electronically to members of the Tulita District Distribution List using the [Online Review System](#) with a request for comments by **March 12, 2018**;
- March 12, 2018** – Reviewer comments received and deadline;
- March 19, 2018** - Proponent response deadline and received; and
- March 26, 2018** - Presentation to the Board for decision.

3. Discussion

Project Overview

The Saline River Line 21 Pipeline Integrity Digs Project has been previously described in [Staff Report 1](#) (Application Review). On February 16, 2018 the Board received [Notification of Implementation of Diversion](#) in

accordance with Part E, Condition 8 of S17L1-004. As described in the notification, the diversion installed varied to the plan slightly in that the channel flow was not through the southerly channel as anticipated however was flowing mainly through the north channels. A diversion was installed and culverts to maintain flow for the channel and functioned as intended. Both dig sites were isolated and water flow maintained through the working area.

An inspection was complete February 26, 2018 by Government of Northwest Territories – Department of Lands (GNWT-Lands) and GNWT – Environment and Natural Resources (GNWT-ENR) with no concerns noted however ENR stated that Enbridge would be required to complete follow-up monitoring (i.e. post-construction) to ensure the site is stabilized during spring freshet 2018. The respective inspection reports were copied to the Board and are available on the online public registry.^{1,2}

Closure and Reclamation Plan

Part I, Condition 1 of S17L1-004 requires that within 15 days of issuance that the Licensee submit to the Board for approval a Closure and Reclamation Plan which shall include, but is not limited to, the following information:

- a) A description of existing conditions, including photographs;
- b) A summary compilation of pre-existing conditions, including assessments of soil, Water, groundwater, and permafrost;
- c) Closure and end land use goals, objectives and criteria;
- d) Closure and reclamation of any site affected by Waste spills;
- e) Management of natural runoff Waters from the Project area;
- f) Restoration of natural drainage at the Project area;
- g) Any potential for groundwater contamination;
- h) Any facilities or areas which may have been affected by the Project such that potential pollution problems exist;
- i) A description of the phased approach to closure and reclamation with an associated implementation schedule;
- j) Maps delineating all disturbed areas and site facilities including hydrological features and elevation contours;
- k) Future land use of the site;
- l) Any other details pertaining to closure and Reclamation requested by the Board.

Enbridge submitted the Closure and Reclamation Plan (CRP or Plan) to the Board for approval on February 28, 2018. The Plan describes the Project activities, the Project Environment and potential impacts to environmental components and the recommended mitigation measures to reduce adverse effects on environmental components. The Plan states that the purpose is to establish closure objectives and criteria in alignment with the four core closure principals as outlined in the Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories (Mackenzie Valley Land and Water Board, 2013) which include: physical stability, chemical stability, no long-term active care requirements, and future use. The closure objectives and criteria are presented in Table 3 (pg. 19) and include:

- Removal of all garbage and construction material from the Project area;
- Return of the landscape to pre-construction condition;
- Achieve soil stability; and
- Natural Revegetation of the Project area.

¹ See SLWB Online Registry: [S17P-005 – GNWT-Lands Inspection Report for Feb 26 2018 – Mar 22 18](#)

² See SLWB Online Registry: [S17L1-005 – GNWT-ENR Inspection Report for Feb 26 2018 – Mar 2 18](#)

The CRP also provides a schedule of reclamation activities and post-construction monitoring activities (Table 4, pg. 23) as well as a drawing of the layout of the Temporary Workspace as constructed for the maintenance activities which includes placement of culverts (pg. 15). The drawing provided also meets the requirement of Part H (Conditions Applying to Construction), Condition 3 of S17L1-004 that required submission of sketch or drawing of the Temporary Workspace within 10 days of completion.

Final closure activities are expected to be complete by the end of March 2018 and post-construction is planned twice annually, following spring break up and during the growing season, for 2 years and there is an option for a third year of monitoring if required. Board staff acknowledge that the schedule align with GNWT-ENR Inspector requirements.

4.0 Agency Comments

The CRP was distributed to members of the Tulita District Distribution List; which includes 31 review organizations and/or stakeholders, requesting a reply by March 12, 2018. Two organizations responded, GNWT-ENR and the Sahtu Renewable Resource Board (SRRB). The recommendations provided by the Reviewers and Proponent Responses are in the attached Review Summary Table.

GNWT-ENR had recommended that Enbridge provide additional quantitative detail related to how the success of natural revegetation will be measured (ID 1) and recommended that Enbridge provide all water quality data associated with their closure and reclamation plan (ID 2). Enbridge provided the following response to ENR ID 1:

Vegetation will be assessed based on the following criteria and based on the professional judgement of the assessor:

- Vegetation cover is established with overall consistency across the site
- No significant bare areas observed
- Vegetation health is comparable to the land type within the vicinity of the project site

Enbridge notes that the project activities took place in rock and cobble areas where there was limited vegetation. Access areas were maintained with snow pack to protect the underlying vegetation.

In response to ENR ID 2, Enbridge stated:

Enbridge only collected field measurements of turbidity during the Project. This information can be provided to the Board upon request.

SRRB had provided 4 recommendations and highlighted that it is critical that an independent site inspector confirm that Enbridge conduct the project activity as described in the CRP and that the post-closure site is as close to pre-disturbance as possible (ID 1). Enbridge responded that it will continue to inform the GNWT Lands Inspector of progress and activities related to the CRP.

Similar to GNWT-ENR recommendation ID 1, SRRB had also requested clarification of how the monitoring would be conducted (ID 4). In response to SRRB recommendations 2-4, Enbridge referred to the appropriate sections of the application that provided pre-construction details which establish conditions that closure objectives would be compared against as well as the DFO project self-assessment which determined a "low" risk to causing serious harm to fish (Response ID 2 and 3). These details were compiled during a preliminary

environmental site screening that was completed in the project area on August 15, 2017 and the site photos were also included in Appendix A of the CRP, along with pre-construction photos from February 2018. Enbridge is also required to submit to the Board a Final Reclamation Report, prior to the expiration of the Licence, which includes a record of site conditions and final risk assessment results as per Part I, Condition 5.

5. Conclusion and Recommendation

Board staff have reviewed the comments and recommendations and proponent responses and find that the responses provide the required clarification to address all of the recommendations. The Closure and Reclamation Plan meets the requirements as set out in Licence S17L1-004 and Board staff recommend the Board approves the Closure and Reclamation Plan as submitted. Board staff have prepared a draft issuance letter for Board consideration (Attachment 4) which also requires that Enbridge includes water quality monitoring data for turbidity to be included in the Annual Water Licence Report required under Part B, Condition 8.

6. Attachments

- 6.1 [Closure and Reclamation Plan, Version 1.0](#) (as link only)
- 6.2 Review Summary Table
- 6.3 Draft Board Approval Letter

Respectfully submitted,



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Executive Director Comments:



Paul Dixon
Executive Director