



# Sahtu Land and Water Board

## Staff Report

<b>Division:</b> Land and Water Program	<b>Report No.:</b> 1
<b>Date Prepared:</b> January 22, 2018	<b>File No.:</b> <a href="#">S17P-005</a> / <a href="#">S17L1-004</a>
<b>Meeting Date:</b> February 7, 2018	

### Subject:

New Type A Land Use Permit and Type B Water Licence application to support two integrity (maintenance) digs on the Line 21 Liquids Pipeline near kilometre post (KP) 180, located within and adjacent to the Saline River as submitted by Enbridge Pipelines (NW) Inc.

### 1. Purpose/Report Summary

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

- a) the new Land Use Permit (LUP or Permit) Application S17P-004 and new Water Licence (WL or Licence) Application S17L1-004 as submitted by Enbridge Pipelines (NW) Inc.;
- b) Summary of stakeholder review comments and proponent responses;
- c) the draft Sahtu Land Use Plan Conformity Determination;
- d) the draft Preliminary Screening Report;
- e) the Engagement Plan and Record;
- f) the Spill Contingency Plan;
- g) the Waste Management Plan;
- h) the Sediment and Erosion Plan; and
- i) the draft terms and conditions for the new LUP and WL.

### 2. Background

- **October 5, 2017** – Pre-submission discussions with Sahtu Land and Water Board (SLWB or Board) staff initiated by Enbridge Pipelines (NW) Inc.
- **November 23, 2017** – the SLWB received a new application for a Type A Land Use Permit and new application for a Type B Water Licence submitted by Enbridge Pipelines (NW) Inc.;
- **December 1, 2017** – the Application was [Deemed Incomplete](#) and the Applicant was advised of additional information requirements;
- **December 4, 2017** – the Board received revised Applications with corrections and supplemental information;
- **December 9, 2017** – the Applicant was advised that additional information and clarification was required to deem complete;
- **December 14, 2017** – the Board received second revised Applications with a [Concordance Table of revisions](#);
- **December 18, 2017** – the Applications were [Deemed Complete](#) and the review package was sent electronically to members of the Tulita District Distribution List using the [Online Review System](#);
- **December 20, 2017** – the Board received a copy of [Enbridge's Notification of Operations and Maintenance Activities](#) which was filed with the National Energy Board on December 1, 2017;
- **December 22, 2017** – the Board received the Sediment and Erosion Plan and Engagement Plan as supplemental information for Applications and consideration during the online public review;

- **December 28, 2017** – The Sediment and Erosion Plan and Engagement Plan were added for consideration during the public review;
- **January 10, 2018** - The draft Permit was circulated for consideration during the public review;
- **January 11, 2018** – The draft Licence was circulated for consideration during the public review;
  - At this time, the Reviewer Comment deadline was extended from January 15 to 18 to allow additional time for review;
- **January 18, 2018** – Reviewer comments due and received;
- **January 25, 2018** – Applicant responses due and received (January 22 deadline was extended on January 11 when Reviewer Comment deadline extended); and
- **January 29, 2018** - Presentation of Applications to the Board for decision and end of 42-day timeline. Due to limited time to consider information presented, Board deemed further study was required and issued a 22(2)(b).
- **January 30, 2018** – Enbridge granted [written permission](#) to initiate preparation of MYB camp by GNWT-Lands
- **February 7, 2018** – Presentation of Applications to the Board for decision.

### 3. Discussion

#### **3.1 Project Overview**

On November 23, 2017, Enbridge Pipelines (NW) Inc. (Enbridge) applied for Type A Land Use Permit S17P-005 and Type B Water Licence S17L1-004 for proposed construction activities as part of ongoing maintenance of its Line 21 Liquids Pipeline (Norman Wells to Zama) near Kilometer Post (KP) 180 at the Saline River (the Line 21 Liquids Pipeline KP 180 Integrity Digs (2) Project). The Application was deemed complete December 18, 2017 after being deemed incomplete December 1, 2018.

Under the existing Permit [MV2013P0011](#) Enbridge is entitled to conduct off right-of-way (ROW) activities for the operation and maintenance of the Line 21 pipeline, including quarrying, camp(s), use and application of herbicides, clearing of vegetation (brushing), and fuel and hazardous materials storage activities. Additional off-right-of way land within the ordinary high water mark is required for temporary work space to accommodate vehicle and equipment staging, temporary material storage and excavation isolation activities, if required to support the excavation. The use of an existing camp owned and operated by MYB Construction for a duration of approximately 600 person days is also required to support the project.

The Project area is anticipated to be dry or frozen to the bottom at the time of proposed Project activities. The KP 180.28 excavation is anticipated to occur entirely within the existing Enbridge ROW and 5 m additional workspace, currently permitted. The KP 180.168 dig location within the high water mark of the Saline River will be isolated using one of three options depending on presence of water or flow conditions at the time of the Project. Option 1 will require no site isolation. Option 2 will require pumping of water from upstream of the isolated excavation area to downstream of the isolated excavation area. Option 3 will involve temporary diversion of flow around the excavation area through an adjacent river channel. Withdrawal of water from the Saline River and/or Mackenzie River will be less than 100m<sup>3</sup> per day with the maximum of 6,000m<sup>3</sup> used during operations to support the camp and maintenance of access routes

Excavation will occur in the Project footprint to expose the existing pipe, and excavated material (native substrate within the Saline River) will be stockpiled at approved locations within the temporary workspace to allow for assessment of the exposed pipe. Dewatering of the excavation area is anticipated. Once assessment is completed, the excavation will be back-filled with the stockpiled material to match the pre-existing composition of substrate. The existing channel grade and the site will be reclaimed to generally match pre-disturbance conditions. The Saline River is connected to the Mackenzie River, approximately 1.6 km downstream of the Project location.

The project activities include:

- Use of equipment, vehicles and machines;
- Use of an existing campsite for more than 400 person days;
- Withdrawal of Water from the Saline River and Mackenzie;
- Clearing of vegetation (brushing);
- Installation and maintenance of erosion control measures;
- Winter watercourse crossing;
- Construction, use, maintenance, and closure of a temporary workspace (TWS) adjacent to the existing Enbridge ROW and below the ordinary high water mark of the Saline River (approximate area of 2.27 ha);
- Removal and re-placement of excavated material within the Ordinary High Water Mark of the Saline River;
- Dewatering excavation areas if flow is present;
- Channel diversion if flow is present;
- Fuel and hazardous materials storage;
- Deposit of Waste to a licenced facility; and
- Other related activities, included associated closure and restoration activities.

The period of operation in the application is January 1, 2018 to March 31, 2018 however the activities are planned to commence immediately after issuance.

#### Management Plans

A [Waste Management Plan](#) (Version 1.0), [Spill Contingency Plan](#) (Version 1.0), [Engagement Plan](#) (Version 1.0) and Records ([Appendix VI – Public Consultation Information](#)), and [Sediment and Erosion Control Plan](#) (Version 1.0) were included with the [Application](#).

Section 3 of the WMP identifies waste types with Table 1 outlining the typical wastes to be generated during the Project which includes both hazardous and non-hazardous materials with anticipated volumes. The hazardous wastes include used oils, fuel, batteries, lubricant, grease, coolants, filters, used hoses and solvents at rate of 1m<sup>3</sup>/day as well as spill-related wastes should a spill event occur. Non-hazardous wastes include domestic at rate of 4m<sup>3</sup>/day and construction materials at 1m<sup>3</sup>.

Section 4 of the WMP outlines the plans for management of waste. All waste generated by the camp will be disposed of at the municipal facilities in Tulita. Porto Potty's will be used and managed by the contractor. In the event that offsite transportation is temporarily restricted and onsite storage capacity is being reached, mitigation options will include construction of a pit in accordance with best practices outlined in the Northern Land Use Guidelines for Camp and Support Facilities (AANDC 2011) and in consultation with the GNWT-Lands Inspector.

#### Equipment and Infrastructure

The following equipment is anticipated as required to complete the Project as described in part 10 of the [LUP Application](#):

- 1 Ambulance – on site for health and safety
- 1 Fuel Truck – for refueling equipment and fuel storage containers at the Project site
- 1 Water Truck – for supplying water at camp location
- 1 Water Truck – for storage of water a camp location
- 6 generators – to operate equipment used to complete the excavation
- 6 heaters – for staff onsite
- 6 light towers – to illuminate the project area during excavation activities
- 6 Rig Mats – to support equipment required during excavation activities
- 1 Sand Blast Truck – for pipe inspection
- 2 Snow Cats – for ROW preparation and transport of staff to excavation
- 1 Tampers – for backfilling excavation

- 2 Welding Trucks – for pipeline inspection
- 1 Excavator – for excavation
- 1 Skid Steer – for site preparation and stockpiling of excavation material
- 1 Hydrovac – 25 tonne maintenance – for daylighting pipeline during excavation and camp sewage and greywater disposal
- 1 D8 Winch Cat – 40 tonne maintenance – for assisting access of vehicles and equipment along north slope to and from project
- 1 Job Trailer – 2 tonne – to facilitate staff during excavation
- 2 Morookas – 6 tonne – to facilitate staff access to and from excavation
- 1 Utility sled – 6 tonne – to facilitate movement of equipment to and from Project
- 6 Pickup Truck – ½ tonne and ¾ tonne – to facilitate movement of staff to and from the Project

An existing camp located at approximately KP 832.4 of the Mackenzie Highway (winter road), which is owned and operated by MYB Construction, is required to complete the Project and identified on the Project map ([Appendix A](#)). It is anticipated to be in operation for 30 days with 20 staff, which equates to 600 person days.

#### Fuel Storage and Containers

The following fuel storage is anticipated as required to complete the Project as described in part 11 of the [LUP Application](#):

- Diesel – 4 containers – 2 x 2500 gallons and 2 x 100 gallons – 2500 gallon tanks to be located a camp location and 100 gallon tanks located as tidy tanks within pickup trucks
- Gasoline – 1 container – 1000 gallon – to be located at the existing camp location
- Propane – 3 containers – 500 pound – to be located at the Project Area

#### Eligibility

Enbridge is eligible per subsection 18(b) of the MVLUR: “...has the right to occupy the land and either contracts to have the land-use operation carried out or is the person who is to carry out the operation” as holds an Easement Agreement for its existing ROW for the Line 21 Pipeline for which this application is associated with.

#### Fees

A copy of the cheques for the Permit application fee of \$150 was submitted as well as the Licence application fee of \$30 with the Applications on November 23, 2017. Both cheques were made payable to the Government of Northwest Territories and corrected cheques made payable to the Receiver General of Canada have been forwarded to the Board.

No land use fees are required as Territorial Lands are being accessed. Water use fees are required although use is planned to be less than 100m<sup>3</sup> per day. The maximum total annual use is expected to be 6000 m<sup>3</sup> (60 days at 100m<sup>3</sup>/day) at a rate of \$1.00 per 100m<sup>3</sup>/day with an associated fee of \$60. The appropriate water use fees have been forwarded to the Board.

#### Term

Enbridge has applied for a term of 3 months: January 1, 2018 to March 31, 2018; which does not consider any potential post-construction monitoring during freshet.

### **3.2 Process Requirements**

**Application Received:** November 23, 2017

**Application Deemed Incomplete:** December 1, 2017

**Revised Application Received:** December 4, 2017

**Proponent Advised Additional Revision Required:** December 8, 2017  
**Additional Revisions Received:** December 14, 2017  
**Application Deemed Complete:** December 18, 2017  
**Application Forwarded for Review:** December 18, 2017  
**Draft LUP Forwarded for Review:** January 10, 2018  
**Draft WL Forwarded for Review:** January 11, 2018  
**Number of Review Agencies:** 30<sup>1</sup>  
**Review Period End Date:** January 18, 2018 – extended from January 15 on January 11  
**Proponent Response Date:** January 25, 2018 – extended from January 22 on January 11  
**Presented to the Board and End of 42-day timeline:** January 29, 2018

The activities as described trigger a Type A Permit in accordance with paragraph 4(b)(i) of the MVLUR:

- 4 No person shall, without a Type A permit, carry on any activity that involves
- (a) on land outside the boundaries of a local government,
    - (i) the use of a vehicle or machine of a weight equal to or exceeding 10 t, other than on a road or on a community landfill, quarry site or airport;
    - (iv) the use of a self-propelled motorized vehicle machine for moving earth or clearing land; or
    - (v) the leveling, grading, clearing, cutting or snow ploughing of a line, trail or right-of-way, other than a road or existing trail to a building, that exceeds 1.5m in width and 4 ha in area, for a purpose other than grooming of recreations trails, or
  - (b) on land within or outside the boundaries of a local government,
    - (ii) the use of a campsite outside a territorial park for a duration of or exceeding 400 person-days.

The activities as described trigger a Type B Licence in accordance with Schedule D (Licensing Criteria for Industrial Undertakings), Column III (Water use and deposit of Waste requiring a Type B Licence):

- 2(1). Construction of a structure across a watercourse of 5 or more metres wide at ordinary high water mark at point of construction;
- 2(2) Watercourse training involving channel and bank alterations and erosion control;
- 2(4) Diversions of a watercourse greater than 2m wide at ordinary high water mark at point of diversion; and
- 3. Deposit of Waste in conjunction with (f) other industrial undertakings (i.e., support camp operation).

Of the 30 organizations to which the application was distributed, 16 are represented within the Sahtu Settlement Area. Review comments were received from:

- Fisheries and Oceans Canada: Triage Group Fisheries Protection Program;
- GNWT – Department of Environment and Natural Resources (ENR);
- GNWT – Department of Lands (Lands);
- Sahtu Renewable Resource Board (SRRB); and
- SLWB staff.

Stakeholder recommendations were generally related to increasing understanding of water and stockpiled materials management. The Review Comment Summary Table and submitted letters from ENR and the Proponent are attached to this report ([Attachment 2](#)).

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<sup>1</sup> See Online Review System ([http://lwboris.yk.com/LWB\\_IMS/ReviewComment.aspx?appid=12366](http://lwboris.yk.com/LWB_IMS/ReviewComment.aspx?appid=12366)): [Distribution List](#)

## 4. Comments

### 4.1 Permission of Land Owner, Community Consultations and Traditional Knowledge

The lands off the ROW are Territorial Lands, therefore official permission to access the sites comes from the Lands Department. The Department of Lands has given permission in the form of comment during the regulatory process (Lands ID#1) in support of the proposed project, which is adequate for the Permitting process. Board staff have also confirmed this with the GNWT-Lands Sahtu Region, Manager, Resource Management (Trevor Bremner).

The Application included an [Engagement Plan](#) as well as pre-submission engagement details ([Appendix VI – Public Consultation Information](#)). Notification of the Project was sent by email on **October 20, 2017** to Stakeholders with additional information about the proposed activities sent by letter, with an invitation to meet, on **November 3, 2017**. Copies of the information is provided within Appendix VI. Contacted Stakeholders, with whom representatives also met with Enbridge in person, included:

- Norman Wells Land Corporation;
- Tulita Land Corporation;
- Tulita Dene Band;
- Hamlet of Tulita; and
- Fort Norman Metis Land and Financial Corporation.

Enbridge also held public meetings in Norman Wells and Tulita as well as met with representatives of the Town of Norman Wells. Letters of support for the MYB camp were provided by the Hamlet of Tulita, Tulita Land and Financial Corporation, and Fort Norman Metis Land and Financial Corporation and included in Appendix VI, pgs. 18-20.

Triggers for life of project engagement have been considered in the Engagement Plan and in Board staff's opinion, the application guidelines have been met. There are currently no unresolved concerns in regards to the planned integrity digs and no reviewer comments were related to engagement.

Enbridge is undertaking a Traditional Knowledge (TK) study with the Tulita Renewable Resource Council to determine traditional uses of the Project area where construction activities will occur. Although the results were not complete at the time of application, Enbridge has committed to continuing to work collaboratively with the Tulita RRC to ensure the results of the TK study are appropriately considered into the Project planning (Proponent Response to SRRB ID#4).

The Sahtu Renewable Resource Board provided recommendation that the results from the Archeological and Traditional Knowledge Projects are acknowledged and considered in the planning of the project (SRRB ID#4). The Proponent Response indicated that an Archeological Overview Assessment has been complete and submitted to the Prince of Wales Northern Heritage Centre for review. This is consistent with the requirements of the draft Permit S17P-005 and the confirmation letter provided by Enbridge from the PWNHC, dated December 15, 2017, indicates that they concur with the management recommendations submitted and that no further archaeological work is required for the Project (see Attachment 1.1 in Proponent Response Package attached to the Review Summary Table). ***The requirement for an Archeological Impact Assessment has been removed from draft Permit S17P-005.***

### 4.2 Management Plans

#### Waste Management Plan

As presented under Section 4.1 (Engagement) of this report, the Hamlet of Tulita has provided a letter indicating support of the camp which also implies use of its municipal facilities under Appendix VI (pg. 18). No stakeholder comments related to the WMP were received.

Section 5 (Management of Wastes) of Enbridge's WMP includes Table 2 which identifies waste disposal facilities for the Project. Here, hazardous wastes are identified as using the Tulita Solid Waste Disposal Facility. Section 4 indicates that all these materials will be disposed of at a licenced hazardous waste/Class 1 receiving facility. The facilities available in Tulita do not meet these requirements as all municipal hazardous waste areas in the NT are considered temporary storage areas. This inconsistency also influences Section 7.0 (Restoring Impacted Areas) of the Spill Contingency Plan which states "all spill-related waste disposal will be completed in accordance with the Project Waste Management Plan"<sup>2</sup>.

There are capacity concerns with the Tulita Solid Waste Facility as reported in the [Tulita Waste Facilities Report](#) submitted as part of the WL renewal application for [S16L3-001](#). There is no capacity concern for the sewage lagoon. The anticipated volume of domestic waste is approximately 4m<sup>3</sup>/day over 30 days of operation as 120m<sup>3</sup> and this can be considered a relatively minor amount of additional material to be considered as the site is preparing for closure with a new facility anticipated in the next year or so (see link for [Interim Closure and Reclamation Plan](#)).

It is Board staff's opinion the WMP satisfies the basic requirements of the Boards' Guidelines for Developing a Waste Management Plan however recommend that the Board require an updated Plan within 10 days of issuance of Permit S17P-005 to correct Section 5 with respect to hazardous waste. The Hamlet of Tulita is generally in compliance with conditions of [S16L3-001](#), however noting the Board has not received the 2016 Annual Report, but also as presented above, there are capacity concerns to be considered. Version 1.0 of Enbridge's [Waste Management Plan](#) (WMP) does not include a letter from the Hamlet of Tulita confirming acceptance of all wastes from the activities however Enbridge commits to obtaining the appropriate approvals prior to disposing of waste (Proponent ID 2).

#### Spill Contingency Plan

Version 1.0 of Enbridge's [Spill Contingency Plan](#) indicates that the majority of fuel is to be stored at the camp where spill kits will be available. Preventative measures are outlined as well as training programs. Section 4.0 (Spill Prevention) of the Plan also aligns with fuel handling requirements included in the draft Permit S17P-005 and commits to having potentially hazardous materials stored at a designed area approved by the Inspector.<sup>3</sup> With the exception that the Plan does not include Material Safety Data Sheets (MSDS) or a detailed map showing storage locations or locations of all response equipment, it is Board staff opinion that the Plan satisfies the basic requirements of Aboriginal Affairs and Northern Development Canada's Guidelines for Spill Contingency Planning, 2007.

Board staff recommend that the Board require an updated Plan within 10 days of issuance to include MSDS and an improved map with fuel storage and spill kit locations.

#### Sediment and Erosion Control Plan

Version 1.0 of Enbridge's [Sediment and Erosion Control Plan](#) (SECP) was added to the public review December 28, 2017. The Plan states that erosion and sediment control in the project area will be guided by Enbridge's Guidelines for Construction (2016) document, which has not been included as part of the application package; however, are guided by existing industry and government best management practices. In addition, Enbridge includes mitigation measures provided in the *Fisheries Act* Self-Assessment that follow recommendations from the Land Development Guidelines for the Protection of Aquatic Habitat (Fisheries and Oceans Canada (DFO) 1993) which also align with standard Permit conditions. The Plan also highlights that the Self-Assessment (Section 7.0 of Appendix I) determined that if the recommended mitigation measures (Section 5.0 of Appendix I: Potential Impacts and Mitigation Measures) were implemented, the Project would pose a low risk to causing serious harm to fish and fish habitat in the Project area.

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<sup>2</sup> See SLWB Online Registry: [S17P-005 S17L1-004 – Enbridge – Line 21 Integrity Dig Saline River – revised Appendix VI – Spill Contingency Plan – Dec 14 17](#), Section 7.0, Restoring Impacted Areas, pg. 11.

<sup>3</sup> See SLWB Online Registry: [S17P-005 S17L1-004 – Enbridge – Line 21 Integrity Dig Saline River – revised Appendix VI – Spill Contingency Plan – Dec 14 17](#), Section 4.0 Spill Prevention, pg. 8

The Plan outlines best management practices (BMPs) that will be applied to the Project for site management including surface water management, vegetation removal, maintenance of erosion and sediment control measures, and monitoring. Section 4.1.2 (Surface Water Management BMPs), bullet 7 indicates that activities will be suspended if sedimentation is occurring unless explicitly authorized by the appropriate regulatory authorities. GNWT-ENR commented on the lack of detail for water management in the Application, particularly should flow be encountered (ID 1), but also in context of dewatering required for groundwater infiltration anticipated during excavation activities (ID 2) and required for stockpiled excavated materials (ID 3), along with the potential re-mobilization after backfilling of stockpiled materials is complete (ID 4). The Proponent Response within Attachment 2 adequately improves understanding of the measures to be implemented for isolation techniques (Options 2 and 3) and water management, stockpiled materials, and mitigation.

The Plan does not meet all requirements outlined in draft Licence condition, which is robust and generally applicable to larger construction projects (i.e., Type A, mining) however also align with the Mackenzie Valley Land and Water Board draft Type A Licence MV2017L1-0002 ([Version 1.0](#)) for Enbridge's Line 21 pipeline segment replacement. Recent Board issued Type B Licence [S16L8-002](#) (DFO, Wharf Repair) and Type B Licence [S17L8-002](#) (INAC-CARD, Great Bear Lake Remediation Project) included the requirement for a SECP. Board staff have considered the scope of these plans in preparing the revised draft Licence S17L1-004 condition as follows:

The Licensee shall comply with the **Sediment and Erosion Control Plan**, once approved by the Board. The Plan shall meet the objectives listed in Part E, condition 1, and shall include, but not be limited to the following:

- a. The details of erosion and sediment control measures to be implemented prior to, during and after activities are completed, until all disturbed areas are completely stabilized;
- b. The details of Water management during excavation;
- c. A monitoring program that ensures the effectiveness and maintenance of all sediment and erosion control measures and stabilization success that is implemented during construction, including monitoring criteria, parameters and Action Thresholds.
- d. A contingency plan that will be undertaken in the event that sediment and erosion issues are identified.
- e. Post-construction monitoring, monitoring criteria, parameters and Action Levels.

It is Board staff opinion that Version 1.0 of Enbridge's SECP meets the basic requirements outlined in the revised condition and recommends the Board require an updated Plan within 10 days of issuance of Licence S17L1-004 The revision should be in accordance with comments, recommendation and commitments made during this review and incorporate all additional information provided by Enbridge. Board staff recommend that the Plan will be considered approved, conditionally upon receipt of this information and written conformity of confirmation from Board staff. Also considered is that a Closure and Reclamation Plan is required under Part I of the draft WL that requires details which provide additional detail related to post-construction monitoring.

### **4.3 Preliminary Environmental Screening**

Section 124(1) of the Mackenzie Valley Resource Management Act requires the Board to undertake a Preliminary Screening of any proposed development prior to the issuance of a Licence, Permit or Authorization.

Based on information provided in the application a Preliminary Environmental Screening (PES) was performed (See Attachment 3). A finalized report that considers recommendations provided by Stakeholders and Proponent commitments made during the review process was in preparation at the time this report was prepared. Based on the resulting changes proposed for the draft authorization and the mitigation measures to be applied, the final PES is anticipated to conclude that the environmental impact of the proposed project can be mitigated with known

technologies and that no significant public concerns have been raised. The draft Preliminary Environmental Screen was forwarded to MVEIRB on February 1, 2018 and will be forwarded to the MVEIRB once approval from the Board has been received.

#### **4.4 Conformity with the Land Use Plan**

Pursuant to subsection 61(1) of the MVRMA, the Board may not issue a licence or permit except in accordance with any applicable land use plan. The Sahtu Land Use Plan (SLUP or Plan) came into effect on August 8, 2013 and applies throughout the Sahtu Settlement Area except for “lands in a settlement area that comprise a park to which the *Canada National Park Act* applies, that have been acquired pursuant to the *Historical Sites and Monuments Act* or that are situated within the boundaries of a local government.”<sup>4</sup>

The proposed project exists wholly within the Deh Cho (Mackenzie River) Special Management Zone (63) where Conformity Requirement (CR)# 1 through 14 apply and bulk water removal is prohibited. The Plan states that the Deh Cho is identified as a Special Management Zone to protect the water quality, riparian habitat, cultural/heritage sites, areas that are important for wildlife and wildlife harvesting.<sup>5</sup> As presented under the Eligibility section of this report, the Proponent holds an Easement Agreement for the existing ROW for the Line 21 Pipeline associated with as well as Permit [MV2013P0011](#) which entitles Enbridge to conduct off ROW activities for operation and maintenance of the Norman Wells (Line 21) pipeline. Accordingly, the Project would meet the definition of a legacy land use and be exempt from the application of CR#1 however required to meet the intent of the remaining applicable CRs.

Enbridge submitted the [Proponent Determination of Project Conformity](#) with the Applications and Board staff review; which includes consideration of the terms and conditions of the Permit and Licence, confirms that the Project meets the intent of the applicable CRs. The Board did not receive any reviewer comment regarding conformity to the SLUP. The Board has met the requirements as per Section 46 of the MVRMA.

#### **4.5 Security Deposit**

In accordance with section 94 of the MVRMA, a security of \$10,000 for post-closure activities will be required under S17L1-004 which Enbridge supports (see ENR ID 7). A [Land Use Security Estimate](#) was prepared by Enbridge (\$24,000) however has not been recommended for S17P-004 because Enbridge requested to apply an overlapping security held under MV2013P0011 (\$895,000) to the Saline River undertaking that has support of GNWT-Lands (see Lands ID 1).

#### **4.6 Draft Land Use Permit**

The draft Permit (Attachment 4) was developed in consideration of the Application, the *Standard Land Use Permit Conditions Template* (February 2016), other recently issued land use permits to Enbridge by the Mackenzie Valley Land and Water Boards for similar activities ([MV2013X0018](#), [MV2013P0011](#), and [W2016X0001](#)) and reflects reviewer concerns and Board staff recommendations.

#### **4.7 Draft Water Licence**

A draft Licence ([Version 1](#)) had been prepared by Board staff consulting past MVLWB Water Licences issued to Enbridge for comparable activities (i.e., [MV2012L1-0006](#) for maintenance at Hodgson Creek) as well as the WL in preparation for Line 21 Pipeline segment replacement ([MV2017L1-0002](#), [Versions 1](#) and [2](#)) to ensure consistency with recent Board issuances and other recent WLs. Prior to posting for review, GNWT-ENR had noted that the draft authorizations were available later than anticipated (Dec 20, 2017) and should there be insufficient time to provide

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<sup>4</sup> Mackenzie Valley Resource Management Act (MVRMA), Section 34.

<sup>5</sup> [Sahtu Land Use Plan \(SLUP\)](#), Appendix 1 (Zone Descriptions), pg. 170.

adequate review of the draft WL, and if the Board is requesting formal comments on the draft, that ENR may request additional time to conduct its review. As there were several parts of the draft WL where Board staff were seeking stakeholder input, and the draft was distributed for review on January 11, 2018, the deadline for review comments was extended to January 18, 2017.

Board staff have revised the draft Licence with consideration of all comments and recommendations that arose during the regulatory process and have included Project specific conditions that align with commitments made by Enbridge.

### ***Water Licence Term***

Enbridge requested the term for the License is 3 months (January 1 to March 31, 2018). Board staff recommend a two (2) year term is appropriate, matching the term of the Permit.

### **Comments on Draft Water Licence Part A (Scope) Item 1 ii), and Part D (Conditions Applying to Water Use) Item 1 - Proponent Comment ID 3:**

Enbridge stated that depending on site conditions and access, withdrawal of water may occur from either the Saline River or the Mackenzie River.

Board staff have revised the draft WL accordingly.

### **Comments on Draft Water Licence Part B (General Conditions) and Part E (Conditions Applying to Water and Waste Management) - Proponent Comment ID 4 & 6:**

GNWT-ENR had recommended that the Board develop an SNP based on Enbridge's responses to water management information requests (ENR Comment ID 6) however Enbridge does not support the inclusion of an SNP considering the scope of activities contemplated for this Project and the nature of planned onsite water discharge, there is no need to sample prior to discharge under normal operations and it would not be Enbridge's standard practice to do so. Enbridge commits to locating all discharge areas to the satisfaction of an Inspector (Proponent Comment ID 6).

Board staff had recommended Enbridge provide additional detail to clarify water management practices which also considers analytical testing to monitor potential contamination introduced during planned activities (ID 1). Enbridge responded that there is no reason to expect contamination as there are no documented historical spills in the project area or access to the project area.

Further clarification regarding water quality testing was requested with the following details provided:

With respect to water quality testing, we do not test water in these circumstances unless there are abnormal circumstances (e.g. known contamination in the vicinity) identified in the environmental pre-screening, or if during construction a procedural field level assessment indicates the need to do verification testing (e.g. sheen is observed or a spill has occurred). This is for integrity digs but also other maintenance work on the right - of-way – standard procedures, as regulated by the National Energy Board. Enbridge employs environmental inspectors to ensure that environmental procedures are followed during construction, and discharge of water to the environment is definitely part of their purview. All staff and contractors are also trained to observe for indicators of contamination.

Taking into consideration the short duration of operation and practicality of implementing an SNP with results received within the period of operation, it is Board staff opinion that the requirement for an SNP can be removed and revised the draft Licence to exclude all related references.

**Draft Water Licence Part E (Conditions Applying to Waste and Water Management) Item 6 - Proponent Comment ID 5:**

Enbridge recommended that the conditions in the land use permit and water license to be aligned with respect to requirement for submission of written notification of acceptance of Waste to the Board and an Inspector prior to initial deposit. Board staff have revised the permit condition and removed Condition 6 of the draft Licence was to reduce redundancy.

**Draft WL Effluent Quality Criteria (EQC) - Items 7, 8, and 9 (Proponent Comment ID 6):**

Enbridge does not support the inclusion of an EQC with the supporting rationale provided as above for exclusion of a SNP. In the absence of EQC in Part E, Board staff have included a Project-specific condition (10) based on the commitments made by Enbridge:

To meet the objectives in Part E, condition 2, Water will be considered impacted if any visible hydrocarbon sheen or odor is present. Impacted water will be collected using pumps or vacuum trucks and stored in sealed drums or tanks for sampling and disposal at an approved facility. The Inspector and Board will be notified in writing with following details:

- a. The results of sampling and analysis;
- b. The volume of impacted Water;
- c. The method of disposal; and
- d. Any other information about monitoring that will be performed.

Further, with respect to water discharge the following mitigation measures were identified and have been included in revised draft Licence (Part E, condition 2):

- Water discharged into the Receiving Environment shall be directed to the suitable discharge locations, which may include sediment removal basins (comprised of filter bags or similar to prevent erosion and sediment deposition), or similar, located in areas within the temporary workspace **as authorized in writing by an Inspector.**

**Draft WL Part F - Conditions Applying to Construction -Items 2, 3, 4, 5, 6, 7, 8 (Proponent Comment ID 7):**

Enbridge disagrees with these proposed conditions as they are not applicable to the Project. There are no “Engineered Structures” being contemplated by the Project as defined by the draft Water License. Also, as previously indicated, there is no landfarm.

Board staff have revised the draft Licence to remove all reference to landfarm which were a transcription error and removed all conditions related to “Engineered Structures”. Board staff have maintained the requirement for a detailed sketch of the temporary workspace (Condition 3) in consideration of a related concern from GNWT-ENR that comments on the quality of the project map provided in Appendix V (Project Diagrams) of the Application suggesting it is a fairly course schematic that does not include any specifics on water management options (Comment ID 1). Board staff agree with this comment and suggest the same would apply to the Project Location Map provided in both the WMP and SCP.

### **Draft WL Part G – Conditions applying to Modifications:**

Enbridge requested that this section be reconsidered as there is no landfarm and no Engineered Structures, either temporary or permanent, being contemplated.

Board staff have revised this Part to be intentionally blank.

### **Draft WL Part K – Conditions applying to Dewatering:**

Within the draft Water Licence, the Board staff had requested reviewer input on the Dewatering Section. ENR noted various questions on water management and how water may be discharged or diverted from the isolated area and recommended that the SLWB develop the Dewatering Section based on responses from Enbridge regarding how water discharge to the environment may occur (ID 9).

Board staff have incorporated conditions related to dewatering into Part E which are based on evidence presented in Enbridge's Response (Appendix 2)

## **5. Other Agency Comments**

The application was distributed to members of the Tulita District Distribution Lists; which includes 30 review organizations, requesting a reply by January 18, 2018. Four (4) organizations responded, offering comments on the application and recommendations as describe above. Additional recommendations provided by the Reviewers include:

### **1. Fisheries and Oceans Canada (DFO)**

DFO recommended that the footprint below the high water mark required for excavation of the two dig sites be provided as well as clarification, in the event that the Saline River is not frozen during the time of excavation and Isolation Option 2 would be utilized, the length of time that the isolation would be in place (DFO Comment ID 1). It was recommended that this information be provided in order to determine the potential impacts to fish and fish habitat. The Proponent response stated:

The footprint below the high water mark required for the excavation at KP 180.168 will be approximately 4 by 4 meters and 5 meters deep. The size of the excavation will be minimized to the extent possible while ensuring safety, to avoid channels as much as possible and reduce the volume of excavated soil. The excavation at KP 180.28 is not expected to be within the high water mark. If Option #2 is utilized, Enbridge anticipates approximately 25 days of isolation.

It was Board staff opinion that Enbridge's response to DFO required additional clarification regarding the footprint size for the proposed temporary workspace (TWS) and the following information has been provided by Enbridge (Board Staff Response to DFO Comment ID 1):

- the approximate size of the TWS within the high water mark is 28,518m<sup>2</sup> (2.85 ha) or 7.04 acres inclusive of the ROW;
- if the ROW is excluding, off ROW area is approximately 22,695m<sup>2</sup> (2.27 ha) or 5.61 acres.
- the total workspace is conservatively estimated as 100x150m on the south-southwest side of the ROW and 90x150m on the north-northeast side of the ROW. It is likely that the TWS will be less.

Board staff sought further clarification from DFO to which the following was provided:

If construction is not occurring under frozen conditions and a complete isolation and pump around is required, then in-water timing window needs to be adhered to (<http://www.dfo-mpo.gc.ca/pnw-ppe/timing->

[periodes/nwt-eng.html](#)). The dig site is ~1.6km from the confluence with the Mackenzie River so it is anticipated there could be movement of fish after freshet.

Board staff confirm that the timing window aligns with the shut-down period requirement in draft Permit S17P-005 (i.e., March 31).

2. GNWT-Lands
  - No comments or concerns at this time
3. GNWT-ENR
4. Sahtu Renewable Resource Board (SRRB)

SRRB Comment ID 1: The applications are fairly complete and it is unlikely that major impacts will result if the project proceeds as described. SRRB recommended that it is critical that the final details of the project are reviewed by an Inspector prior to the onset of the project.

Board staff support this recommendation and have included conditions which align with commitments made by Enbridge in Part E of the WL where approval by an Inspector is required (i.e., discharge and stockpiling locations). Enbridge response highlighted that the Permit included the standard condition requiring notification to an Inspector prior to commencement of Project activities.

SRRB Comment ID 2:

The Proponent does not state what work will be conducted on the pipeline as part of the project. The description of activity before and after the work is repeated in a number of ways, but the actual work isn't described. Is the pipeline to be repaired, inspected, replaced? If so, what are the possible effects to the surrounding environment?

The recommendation was that the Proponent should include a description of the work activity so that reviewers can assess the potential environmental impacts (ID 2). Enbridge provided additional information in its response stating that:

The scope of this Land Use Permit is limited to offright- of-way land use. A maintenance dig is routine work that is regulated by the National Energy Board and is subject to standard operating procedures. The purpose of the Project is to expose the pipeline for visual inspection and testing to confirm whether maintenance is required. Enbridge anticipates that sleeves may be installed over the existing pipeline at these dig locations.

SRRB Comment ID 3 had recommended, given that the permits had not been issued in January 2018, clarification on if the final date of the project needed to be adjusted. Enbridge acknowledged that schedule is critical for successful execution of this Project due to the short winter construction season. It is Enbridge's understanding that in order to begin camp construction that only the Land Use Permit must be issued, and that the Water License is required prior to occupancy of the camp and start of in-stream activities. Enbridge has respectfully requested that the Board take into consideration that the Project schedule requires that activities associated with staging the camp commence as soon as possible in order to have occupancy no later than February 7, 2018, in order to complete the Project this year.

5. Board staff

## 6. Conclusions

The Line 21 Pipeline KP 180 Integrity Digs (2) Project proposed by Enbridge is being conducted during the winter season and can be considered to have a low risk provided appropriate mitigation measures are implemented. Enbridge has submitted an Engagement Plan, Waste Management Plan, Spill Contingency Plan, and Sediment and

Erosion Control Plan which meet basic requirements. Enbridge's responses to Stakeholder recommendations improved understanding of water and excavated material management plans and mitigation measures. Additional information will be provided as required for the Closure and Reclamation Plan to be submitted to the Board for approval within 30 days of License issuance.

The draft Permit Conditions are based upon the standard condition list, Stakeholder comments, and Board staff recommendations. The draft Licence Conditions are based on Stakeholder, Proponent, and Board Staff recommendations. Board staff conclude that the conditions contained within these draft authorizations should mitigate the potential environmental impacts this development may have on the land and water.

## 7. Recommendations

Board staff recommend the Board proceed with the regulatory process for this Land Use Permit and Water Licence including:

1. Approve the **Engagement Plan**;
2. Approve the **Waste Management Plan** requiring revisions submitted within 10 days of issuance;
3. Approve the **Spill Contingency Plan** requiring revisions submitted within 10 days of issuance;
4. Approve the **Sediment and Erosion Control Plan** requiring revisions submitted within 10 days of issuance;
5. Approve the **draft LUP**, with a term of two years;
6. Approve the **draft WL**, with a term of two years;
7. Approve the draft **Preliminary Screening**;
8. Approve the **Sahtu Land Use Plan Conformity Determination**;
9. Approve the draft **Reasons for Decision** (Attachment 7); and
10. Approve the draft **Letter of Issuance** (see Attachment 8)

Should the Board grant approval, the Permit and Licence could be issued on February 7, 2018.

## 8. Attachments

1. [Land Use Permit](#) and [Water Licence](#) Applications (hyperlinks only)
  - a. [Sahtu Land Use Conformity Requirements for Zone 63](#)
  - b. [Appendix I – Project Description](#)
  - c. [Appendix II – Site Photos](#)
  - d. [Appendix III – Waste Management Plan](#)
  - e. [Appendix IV – Spill Contingency Plan](#)
  - f. [Appendix V – Project Diagrams](#)
  - g. [Appendix VI – Public Consultation Information](#)
  - h. [Land Use Security Estimate](#)
  - i. [Engagement Plan](#)
  - j. [Sediment and Erosion Control Plan](#)
2. [Review Comment Summary Table with Attachments](#)
3. Draft Preliminary Screening
4. Draft Sahtu Land Use Plan Conformity Determination
5. Draft Land Use Permit with Cover Letter
6. Draft Water Licence with Cover Letter
7. Draft Reasons for Decision
8. Draft Issuance Letter

Respectfully submitted,



Sabrina Sturman  
Regulatory Specialist

Executive Director Comments:



Paul Dixon  
Executive Director