



SAHTU Land and Water Board Water Licence

Pursuant to the Mackenzie Valley Resource Management Act, the Waters Act and Regulations, the Sahtu Land and Water Board, hereinafter referred to as the Board, hereby grants to

Enbridge Pipelines (NW) Inc.

(licensee)

of 10175 101 Street NW, Edmonton, AB, T5J 3S4

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water and deposit waste subject to the restrictions and conditions contained in the *Mackenzie Valley Resource Management Act*, the *Waters Act* and Regulations made thereunder and subject to and in accordance with the conditions specified in this licence.

Licence Number	<u>S17L1-004</u>
Licence Type	<u>"B"</u>
Location	<u>Latitude 65° 17' 39.51" North, Longitude 126° 29' 35.91" W, Saline River in Tulita District, NT</u>
Purpose	<u>The use of Water, dewater a portion of the Saline River, and dispose of Waste for off right-of-way activities associated with the Line 21 Liquids Pipeline Integrity Digs (2).</u>
Quantity of Water not to be exceeded:	<u>6,000 cubic metres (m³) only during year 1</u>
Effective Date of Licence	<u>February 7, 2018</u>
Expiry Date of Licence	<u>February 6, 2020</u>

This Licence issued and recorded at Fort Good Hope includes and is subject to the annexed conditions.

SAHTU Land and Water Board


Witness


Philippe di Pizzo, A/Chairman

**This Licence and conditions shall be kept on site.
If you have any questions please call the SAHTU Land & Water Board at
(867) 598-2413**

SATHU LAND AND WATER BOARD
Type B Water Licence S17L1-004
Enbridge Pipelines (NW) Inc. – Industrial Use - Line 21 Pipeline Maintenance at Saline River

Part A: Scope and Definitions

Scope

1. This Licence entitles the Licensee to use Water, dewater a portion of the Saline River, and dispose of Waste for the purpose of industrial undertakings for the off Right-of-Way (ROW) activities associated with two (2) integrity digs as maintenance on the Line 21 Liquids Pipeline within the Saline River (KP 180.168 and KP 180.280) and includes the following:
 - i. Construction, operation, maintenance, and reclamation of a Temporary Workspace adjacent to the existing Enbridge ROW and below the Ordinary High Water Mark of the Saline River;
 - ii. Withdrawal of Water from the Saline River and the Mackenzie River for maintenance of access routes and operation of the MYB camp;
 - iii. Winter Watercourse crossing of the Saline River;
 - iv. Removal and re-placement of excavated material within the Ordinary High Water Mark of the Saline River;
 - v. Dewatering excavation areas if flow is present;
 - vi. Channel diversion if flow is present;
 - vii. Deposit of Waste to a licenced facility;
 - viii. Installation and maintenance of erosion control measures;
 - ix. Fuel and hazardous materials storage; and
 - x. Progressive Reclamation and associated closure activities.
2. This Licence is issued subject to the conditions contained herein with respect to the taking of Water and the depositing of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposit of such Waste may enter any Waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the *Waters Act*, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations.
3. In conducting its activities under this Licence, the Licensee shall make best efforts to consider and incorporate any scientific and Traditional Knowledge that is made available to the Licensee.
4. Compliance with the term and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of any applicable Federal, Territorial or Municipal legislation.

Definitions

In this Licence, S17L1-004

Act - the *Waters Act*, S.N.W.T. 2014, c.18.

Action Level – a predetermined qualitative or quantitative trigger which, if exceeded, requires the Licensee to take appropriate actions including but not limited to: further investigations, changes to operations, or enhanced mitigation measures and reporting of same.

Analyst - an Analyst designated by the Minister under subsection 65(1) of the Act.

Board - the Sahtu Land and Water Board established by Part 3 of the *Mackenzie Valley Resource Management Act*.

Camp Wastes – all Wastes generated as part of the operation of the MYB Camp including Sewage.

Complete Application - the Type B Water Licence application with supporting documents as submitted to the Board and deemed complete on December 18, 2017 for maintenance (integrity dig) at the Line 21 Pipeline site (Kilometer Post (KP) 180.168) located within the Saline River in the Tulita District of the Sahtu, NT

Construction - any activities undertaken to construct or build any structures, facilities or components of, or associated with, the development of the Project including any Construction activities undertaken during Operations and closure phases of the Project.

Contingency Planning – a plan to establish a state of readiness that will enable prompt and effective response to possible spill or system failure.

Dewatering – the complete removal of water from an existing water body or portion thereof by pumping or draining.

Discharge – the direct or indirect release of any Water or Waste to the Receiving Environment.

Drawdown - the partial removal of Water from a natural waterbody.

Engagement Plan - a document, developed in accordance with the Board's June 2013 *Engagement and Consultation Policy and the Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*, that describes proposed engagement activities during the life of the undertaking.

Greywater - all liquid Wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include Toilet Wastes.

Groundwater - all Water in a zone of saturation beneath the land surface, regardless of its origin, as defined in the Regulations.

Inspector - an Inspector designated by the Minister under subsection 65(1) of the Act.

Licensee - the holder of this Licence.

Minister - a duly appointed member of the Executive Council who is responsible for the *Waters Act* or the department responsible for administering that Act.

Modification - a change, other than an expansion, that does not alter the purpose or function of a structure.

Ordinary High Water Mark - the usual or average level to which a body of Water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams), this refers to as active channel/bank-full level, which is often the 1:2 year flood flow return level. In inland lakes, wetlands or marine environments, it refers to those parts of the Watercourse bed and banks that are frequently flooded by Water so as to leave a mark on the land and where the natural vegetation changes from predominantly aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs, this refers to normal high operating levels (full supply level).

Project - the undertaking described in Part A, item 1.

Receiving Environment – the natural/aquatic environment that receives any deposit or Discharge of Waste or Water, including runoff, from the Project.

Reclamation - the activities which facilitate the return of areas affected by the Project to a viable and, wherever practical, self-sustaining ecosystems that are compatible with a healthy environment, human activities, and surrounding environment.

Regulations - Regulations proclaimed pursuant to section 63 of the Act.

Seepage - any Water or Waste that drains/passes through or escapes from any structure designed to contain, withhold, divert, or retain Water or Waste.

Sewage - all Toilet Wastes and Greywater.

Spill Contingency Plan - a document, developed in accordance with Indian and Northern Affairs Canada's April 2007 *Guidelines for Spill Contingency Planning* that describes the set of procedures to be implemented to minimize the effects of a spill.

Temporary Workspace – additional off right-of-way (ROW) land within the ordinary high water mark of the Saline River required to accommodate vehicle and equipment staging, temporary material storage, and excavation isolation activities, if required, to support the Saline River Line 21 Pipeline Integrity Dig (2) Project at Kilometer Post (KP) 180.168 as described in the Complete Application.

Toilet Wastes - all human excreta and associated products, but does not include Greywater.

Traditional Knowledge - the cumulative, collective body of knowledge, experience and values built up by a group of people through generations of living in close contact with nature. It builds upon the historic experiences of a people and adapts to social, economic, environmental, spiritual, and political change.

Unauthorized Discharge - is the release or Discharge of any Water or Waste not authorized under this Licence or legislation.

Waste(s) - any substance defined as Waste by section 1 of the Act.

Waste Management Plan - a document, developed in accordance with the Board's March 2011 *Guidelines for the Development of a Waste Management Plan*, which describes the methods of Waste management from Waste generation to final disposal.

Wastewater - any Water that is generated by Project activities, or that originates on site, which contains Waste and requires treatment or any other Water management activity, and includes but is not limited to runoff and Seepage.

Water(s) - means any Waters as defined by section 1 of the Act.

Water Use - a use of Water as defined by section 1 of the Act.

Part B: General Conditions

1. The Licensee shall ensure a copy of this Licence is maintained on site at all times, and that all employees conducting work related to the Project are made aware of the appropriate sections of this Licence.
2. All references to policies, guidelines, codes of practice, statutes, regulations or other authorities shall be read as a reference to the most recent versions, unless otherwise denoted.
3. All information submitted to the Board, as required by this Licence, shall:
 - a) Be submitted in a form acceptable to the Board;
 - b) Be in accordance with the Board's *Document Submission Standards*;
 - c) Include a section within each submission which identifies wherein the pertinent requirements of this Licence are addressed; and
 - d) Includes a brief summary of any revisions made.
4. The Licensee shall operate in accordance with the plans approved pursuant to the conditions of this Licence, including any revisions as may be made pursuant to the conditions of this Licence and as approved by the Board. If any plan is not approved by the Board, the Licensee shall revise the plan as directed by the Board and resubmit it for approval. Each revised submission shall include a list of material revisions.
5. The Licensee shall review the plans annually, or as directed by the Board, and make any necessary revisions to reflect changes in operations. All revised plans, shall be submitted to the Board, for approval, at least 60 days, unless otherwise specified, prior to implementing any proposed updates or changes in the approved plan, program, study or manual, and shall be accompanied by a brief summary of the changes made. All revised plans, programs, studies, and manuals shall be presented in a format consistent with the Board's *Standard Outline for Management Plans*.
6. Meters, devices, or other such methods used for measuring the volumes of Water used and Waste Discharged shall be installed, operated, and maintained by the Licensee to the satisfaction of an Inspector.
7. The Licensee shall act in accordance with the **Engagement Plan**, once approved by the Board.
8. The Licensee shall submit an **Annual Water Licence Report** to the Board not later than March 31, 2018 and each year thereafter for the life of the Water Licence, which shall include but not be limited to the following information:
 - a) The monthly and annual quantities in cubic metres of fresh Water obtained from all sources;
 - b) A summary of engagement activities conducted in accordance with the approved **Engagement Plan**, required in Part B of this Licence, and shall include a brief description of activities planned for the forthcoming year;
 - c) A summary of activities conducted in accordance with the approved **Waste Management Plan**, required in Part E of this Licence, including:
 - i. A summary of updates or changes to the process or facilities required for the management of Water, Wastewater and Waste;
 - ii. Monthly and annual quantities in cubic metres of all Wastes, including Wastewater, discharged from the Project; and
 - iii. A detailed waste audit of all Waste produced, transported, and disposal method/location (in volumes and by type).
 - d) A summary of activities conducted in accordance with the approved **Erosion and Sediment Control Plan**, required in Part E of this Licence, including:
 - i. The details of Water management during excavation;

- ii. A description and performance evaluation of each preventative and mitigative measure implemented to address erosion control issues and an assessment of any re-vegetation programs; and
 - iii. A description of any erosion susceptible areas encountered and a summary of activities to prevent or mitigate erosion.
- e) A summary of **Construction** activities conducted in accordance with Part F of this Licence;
- f) A summary of **Modifications** and/or major maintenance activities conducted in accordance with Part G of this Licence;
- g) A record of **Inspections** with a summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector;
- h) A summary of activities conducted in accordance with the approved **Spill Contingency Plan**, required in Part H of this Licence, including:
 - i. A list of spills or **Unauthorized Discharges**, including the date, NWT spill number, volume, location, summary of the circumstances and follow-up actions taken, and status (i.e. open or closed), in accordance with the reporting requirements in Part H of this Licence
 - ii. An outline of any spill training and communication exercises carried out during the previous calendar year;
- i) A summary of activities conducted in accordance with the approved **Closure and Reclamation Plan**, required in Part I of this Licence, including a summary of updates or changes made and an outline of any work anticipated for the next year; and
- j) Any other details requested by the as Board by November 1 of the year being reported.

Part C: Conditions Applying to Security Requirements

1. Prior to the use of Water or the disposal of Waste, the Licensee shall post and maintain a security deposit in the amount of \$10,000, pursuant to section 35(1) of the Act and section 11 of the Regulations.
2. Upon request of the Board, the Licensee shall submit an updated Project reclamation liability estimate utilizing the current version of RECLAIM or another method acceptable to the Board.
3. The amount of the security deposit required by Part C, condition 1 may be revised by the Board based on estimates of the Project's reclamation liability referred to in Part C, condition 2 or based on such other information as may become available to the Board.
4. If the amount of the security deposit is revised by the Board as described under Part C, condition 3, the Licensee shall post the revised amount with the Minister within 90 days of the Board giving notice of the revised amount.

Part D: Conditions Applying to Water Use

1. The Licensee shall only obtain fresh Water for the Project from the Saline River and Mackenzie River, unless otherwise approved by the Board.
2. The total daily quantity of fresh Water withdrawn to support camp operations and maintenance of access routes shall not exceed 100 cubic metres.
3. The Licensee shall construct and maintain the Water intake(s) with a screen designed to prevent impingement and/or entrapment of fish. The screen shall have a mesh size sufficient to ensure no entrainment of fish, as outlined in the Department of Fisheries and Oceans' 1995 Intake End-of-Pipe Fish Screen Guidelines.
4. The Licensee shall maintain daily water use logs for withdrawals and make them available at the request of the Board or an Inspector. The water uptake logs shall include the following information: identification of water source, volume of water withdrawn in cubic metres, cumulative uptake per source, time of update, date of uptake and contractor and employee identification.

Part E: Conditions Applying to Waste and Water Management

1. The Licensee shall manage Water and Waste with the objectives of minimizing impacts of the Project on the quantity and quality of Water in the Receiving Environment through use of the appropriate mitigation measures, monitoring, and follow-up actions.
2. The Licensee shall ensure that any Unauthorized Discharges associated with this Project do not enter any Waters.

Management Plans and Monitoring Programs

3. The Licensee shall act in accordance with the **Waste Management Plan**, once approved by the Board.
4. 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; and
 - e. Post-construction monitoring, monitoring criteria, parameters and Action Levels.

Operations and Maintenance

1. The Licensee is authorized to Dewater a portion of the Saline River.
2. Water discharged to the Receiving Environment shall be directed to 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.
3. All Dewatering Discharge outflow structures shall be maintained so as to minimize erosion and sediment deposition to the satisfaction of an Inspector.
4. The Licensee shall monitor Water levels during Dewatering to prevent Dewatering of areas downstream of the isolated work area.
5. During the Dewatering activities, daily erosion inspections of Discharge points shall be carried out and records of these inspections shall be kept for review upon the request of an Inspector. If any erosion is observed, the Licensee shall notify an Inspector and take the necessary corrective actions to mitigate the erosion problem to the satisfaction of an Inspector.
6. The Licensee shall maintain and operate the Temporary Workspace in such a manner as to prevent structural failure and to the satisfaction of an Inspector.
7. Stockpiling locations will be located to the satisfaction of an Inspector.
8. The Licensee shall provide written notification to an Inspector and the Board should implementation of diversion or isolation activities (Options 2 and 3 in the Complete Application) be required.

9. 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.

Part F: Conditions Applying to Construction

1. The Licensee shall ensure that all structures intended to contain, withhold, divert, or retain Water or Wastes are designed, constructed, and maintained to minimize the escape of Waste to the Receiving Environment.
2. The Licensee shall maintain Construction records of Construction materials for all structures and make them available at the request of the Board or an Inspector.
3. Within 10 days of the completion of the Temporary Workspace, the Licensee shall provide the Board with a detailed sketch and photos of the layout of the Temporary Workspace that shows where the holding tanks, , containment berms, and spill kits are/will be located, noting the size and capacity of each and any other relevant information.

Part G: Conditions Applying to Modifications

Section Intentionally Blank

Part H: Conditions Applying to Spill Contingency Planning

1. The Licensee shall act in accordance with the **Spill Contingency Plan**, once approved by the Board.
2. The Licensee shall ensure that petroleum products, hazardous material and other Waste(s) associated with the Project do not enter any Waters.
3. If, during the period of this Licence, a spill or Unauthorized Discharge occurs, or is foreseeable, the Licensee shall:
 - a) Implement the approved Spill Contingency Plan referred to in Part H, condition 1;
 - b) Report the incident immediately via the 24-Hour Spill Report Line at (867) 920-8130 in accordance with the instructions contained in the Spill Report Form NWT 1752/0593;
 - c) Report each spill and Unauthorized Discharge to the Board and an Inspector within 24 hours; and
 - d) Submit a detailed report on each spill and Unauthorized Discharge, including descriptions of root causes, response actions and any changes to procedures to prevent similar occurrences in the future, to the Board and an Inspector within thirty (30) days.
4. All spills and Unauthorized Discharges shall be reclaimed to the satisfaction of an Inspector and the Board.

Part I: Conditions Applying to Closure and Reclamation


1. Within 15 days of issuance of this Licence, the Licensee shall 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.
2. The Licensee shall act in accordance the Plan specified in Part I, condition 1, once approved by the Board.
3. The Licensee shall endeavor to carry out progressive Reclamation of areas as soon as reasonably practicable.
4. Upon implementation of the Closure and Reclamation Plan, the Licensee shall provide to the Board and Inspector updates of all related activities within the Annual Water Licence Report as per Part B, condition 8.
5. Prior to Licence expiry, the Licensee shall submit to the Board a **Final Remediation Report**, including a record of site condition and final risk assessment results.

Part J: Conditions Applying to Watercourse Crossings

1. The Licensee shall ensure that only clean snow and clean water are used on all watercourse crossings for Construction of snowfills and equipment access on all Watercourse crossings and that no debris is left on the surfaces of the crossings/placed in the Watercourse channel
2. The Licensee shall ensure any materials placed below the Ordinary High Water Mark used in the Construction of Water crossings are free of any contaminants, debris or fine material.
3. The Licensee shall ensure any materials placed below the Ordinary High Water Mark used in the Construction of Water crossings are removed before spring break-up.
4. The Licensee shall not remove naturally occurring material from the bed or banks of any Watercourse below the Ordinary High Water Mark other than as identified in the complete application.
5. The Licensee shall comply with the most recent version of the Department of Fisheries and Oceans *Protocol for Temporary Winter Access Water Crossings in the Northwest Territories*.
6. The Licensee shall not ford wet Watercourses or areas of overflow, unless authorized in writing by an Inspector.
7. The Licensee shall minimize the disturbance of riparian vegetation within the immediate boundary of any Watercourse crossing to the extent practicable.
8. The Licensee shall erect and maintain erosion protection measures (such as silt fencing) at the construction site before commencement of activities to prevent sediment from entering the Watercourse; which shall be maintained to the satisfaction of an Inspector.
9. All areas affected by Construction or excavation activities shall be stabilized and landscaped to pre-construction profiles or as approved by an Inspector.

Signed on behalf of the Sahtu Land and Water Board


Witness


Philippe di Pizzo (A/Chair)

**Annex B – Concordance Table of Items Requiring Submission
Annexed to Water Licence S17L1-004**

Table 1: Summary of the information the Licensee is required to submit as per the Water Licence conditions

Part of Licence	Item	Timeline for Submission	Requirement
B	Submit Annual Water Licence Report	Beginning March 31, 2018 and every year thereafter	Acceptance by Board
B	Engagement Plan	-	
C	Security Deposit	Prior to the use of Water or disposal of Waste	
E	Submit Waste Management Plan Version 1.1	Within 10 days of issuance	Will be considered to be approved upon written confirmation of conformity from Board staff
E	Submit Sediment and Erosion Control Plan Version 1.0	Within 10 days of issuance	Will be considered to be approved upon written confirmation of conformity from Board staff
F	Notify Board and Inspector before commencing Construction	At least 10 days prior to commencement	
F	Submit detailed sketch and photos of the Temporary Workspace	Within 10 days of completion of Construction	
G	Notify Board and Inspector should diversion or isolation implement be required		
H	Submit Spill Contingency Plan Version 1.1	Within 10 days of issuance	Will be considered to be approved upon written confirmation of conformity from Board staff
H	Submit detailed spill and Unauthorized Discharge Report	Within 30 days of event	
I	Submit Closure and Reclamation Plan	Within 15 days of Licence issuance	Board approval

**Annex C – Table of Revision History
Annexed to Water Licence S17L8-003**

Table 1: Updates and changes that have been made to the Water Licence since issuance

Date	Location of Change	Description of Change