Review Comment Table

Board:	SLWB	
Review Item:	Enbridge Line 21 Pipeline Replacement Project at KP158 - Little Smith Creek	
File(s): S20L1-001 S20P-003		
Proponent:	Enbridge Pipelines (NW) Inc.	
Document(s):	Type B Water Licence Application - Enbridge KP158 (299 KB) Type A Permit Application - Enbridge KP158 (revised July 17) (318 KB) Appendix 1 - Certificate of Corporation (830 KB) Appendix 2 - Sahpefile KP158 (zip file) (377.9 KB) Appendix 3 - Environmental and Socio-Economic Assessment (revised July 17) (33.6 MB) Appendix 4 - Spill Contingency Plan (revised July 17) (4.6 MB) Appendix 5 - Closure and Reclamation Plan (6.5 MB) Appendix 6 - Waste Management Plan (2.8 MB) Appendix 7 - Equipment List (822 KB) Appendix 8 - Engagement Plan and Summary (13.6 MB) Closure Cost Estimate (30 KB) Draft Land Use Permit Conditions (650 KB) Draft Water Licence Conditions (1.23 MB)	
Item For Review Distributed On:	July 22 at 15:16 Distribution List	
Reviewer Comments Due By:	Aug 12, 2020	
Proponent Responses Due By:	Aug 19, 2020	
Item Description:	July 27 - Draft Licence and Permit Conditions have been uploaded to this review. Enbridge Pipelines (NW) Inc. (Enbridge) has submitted a complete application for a Type A land use permit (Permit) and a Type B Water Licence (Licence). The purpose of this Application is to use horizontal direction drilling (HDD) to replace at a deeper, safer depth, a segment of the Line 21 pipeline within the existing Enbridge ROW, southeast of kilometre post (KP) 158 near Little Smith Creek in the Northwest Territories. The work is required to protect Line 21 pipeline from potential impacts of slope instability at a meander bend along Little Smith Creek to support pipeline integrity and continued safe operations. The Project will use mostly existing	

disturbed land for winter access, camp use, laydown yard for storage of equipment and fuel. A potential barge landing on the Mackenzie River is anticipated to be established in early fall, with potential in-stream work, brush and vegetation removal and minor cut and fill. An existing gravel pit is proposed to be used for a temporary sump for drill cuttings and slurry. The term requested is five years.

Using the Online Review System (ORS), reviewers are invited to submit comments and recommendations on the documents linked below by the review comment deadline specified. Reviewers may also wish to consider providing an overarching recommendation regarding whether the Board should approve the submission, to provide context for the comments and recommendations and assist the Board with its decision. If reviewers seek clarification on the submission, they are encouraged to correspond directly with the Applicant prior to submitting comments and recommendations.

Under the Preliminary Screening Requirement Regulations, the Board must conduct a preliminary screening for a proposed development, unless it is exempt from preliminary screening in accordance with the Exemption List Regulations. Reviewers are encouraged to provide comments and recommendations (e.g., on impacts and mitigation measures) to assist with the Board's preliminary screening determination.

Under the Sahtu Land Use Plan (SLUP), the Board must confirm the Application conforms with the SLUP. Reviewers are encouraged to provide comments and recommendations on conformity with the SLUP.

Please note that a draft Permit and draft Licence will be posted to this review item by **July 27**. These drafts have been developed using the MVLWB's current Standard Land Use Permit Conditions Template and Standard Water Licence Conditions Template. Non-standard conditions are shown in green. The purpose of the draft Permit and Licence is to allow reviewers to comment on possible conditions. These draft materials are not intended to limit in any way the scope of reviewers' comments. The Board is not bound by the contents of the draft Permit or the draft Licence and will make its decision at the close of the proceeding on the basis of all the evidence and

	Please be advised that comments made by reviewers regarding impacts of this project to wildlife and wildlife habitat in this preliminary screening will inform the GNWT Minister of Environment and Natural Resources' determination regarding whether a Wildlife Management and Monitoring Plan will be required for this project as per section 95 of the Wildlife Act.
General Reviewer Information:	All documents that have been uploaded to this review are also available on our public Registry. If you have any questions or comments about the ORS or this review, please contact Bonnie Bergsma at (867) 496-2778 or email bonnie.bergsma@slwb.com .
Contact Information:	Bonnie Bergsma Jenna Grandjambe

Comment Summary

En	nbridge Pipelines (NW) Inc. (Proponent)				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response	
3	Enbridge's comments on the draft conditions for Land Use Permit # S20P- 003 - KP 158	Comment (doc) Please see attached Enbridge's comments on the draft conditions for Land Use Permit # S20P-003 - KP 158. Thank you for the opportunity to provide these comments. Recommendation See attached.		Boed staff have responded to all comments in the draft Land Use Permit conditions	
2	Enbridge's comments on the draft conditions for Water Licence # S20L1-001 - KP 158	11			
Fis	heries and Ocean	s Canada: Triage Group Fisheries Prote	ction Program		

ID	Торіс	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
1	Enbridge Line 21 Pipeline Replacement Project at KP158 - Little Smith Creek (SLWB)	Comment Your proposal has been reviewed to determine whether it is likely to result in the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the Fisheries Act; and, effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the Species at Risk Act. Recommendation Provided that the plans are implemented in the manner, and during the timeframe, described, the Fish and Fish Habitat Protection Program (the Program) is of the view that your proposal will not require an authorization under the Fisheries Act or the Species at Risk Act. Should your plans change or if you have omitted some information in your proposal, further review by the Program may be required. It remains your responsibility to remain in compliance with the Fisheries Act, avoid prohibited effects on listed aquatic species at risk, any part of their critical habitat or the residences of their individuals, and prevent the introduction of non-indigenous species. It is also your Duty to Notify DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat.	Aug 19: Acknowledged.	Enbridge is no longer proposing to complete any in-stream works for this Project. If required, a Licence amendment will be submitted.
GN	WT - ENR - EA	M (Environmental Assessment and Moni	toring): Central Ema	il GNWT
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
22	General File	Comment (doc) ENR Letter with Comments and Recommendations Recommendation		
1	Topic: Water Sources	Comment ENR notes that Enbridge Pipelines (NW) INC. (Enbridge) proposes the Mackenzie River, a nearby spring fed waterbody, and Little Smith Creek as water sources for this project. Enbridge states that only one water source is expected to be used, and that the most appropriate location will be	Aug 19: The water source will be determined in the field prior to construction based on a number factors including accessibility and site	Include a Licence condition to require the location of water intakes be approved

		determined at a later date. It isn't clear when the water source will be determined, or when the required comparison of total proposed water use to the available capacity will be provided. Recommendation 1) ENR recommends that Enbridge clarify when the water source will be determined, and when the estimated volume comparison of total proposed water use, to available capacity, will be provided, if the spring fed waterbody or Little Smith Creek are selected as the project water source.	conditions such as ice thickness. The potential sources identified are commonly used for local winter road construction. The suitability of the preferred water source will be verified with the GNWT Inspector prior to construction. Applicable DFO intake screen guidelines will be followed.	by the Inspector. Include a Licence Condition condition for fish screens.
2	Topic: Water Use – Camps	Comment The application notes that a maximum water volume of 5,000 m3 will be required and that water withdrawals will be limited to less than 299 m3/day. It is estimated that the drilling rig will require approximately 25 m3/day. It isn't clear if domestic/camp water usage has been included in these numbers or if the camp water will be sourced externally. Recommendation 1) ENR recommends that Enbridge clarify the total quantity and source of domestic water usage for the camp.	Aug 19: Enbridge is not proposing to withdraw camp water from a natural source. Potable water for camp use will be provided by the chosen camp provider with appropriate agreements in place from the local municipality.	Noted. Enbridge clarified that water will be withdrawn and stored for use in drilling operations.
3	Topic: Map	Comment The Waste Management Plan does not contain a map to show the overall project location and the proposed location for all waste management activities. Recommendation 1) ENR recommends that Enbridge provide a project location map showing the proposed location for all waste management activities as per the Guidelines for Developing a Waste Management Plan (MVLWB, 2011).	Aug 19: The Waste Management Plan will be updated with a diagram confirming locations of waste management activities.	Revisions to WMP
4	Topic: Waste Receiving Facilities	Comment Section 2.2.4 of the Waste Management Plan describes that all non-hazardous camp wastes are expected to be hauled to local disposal or treatment facilities, in Tulita or Norman Wells or other approved sites. Enbridge does state that written agreements will be put in place with receiving facilities for the acceptance of wastes prior to commencement of construction. ENR notes that these agreements should be obtained as early as possible so that in the event that	Aug 19: Acknowledged.	Condition #40 – Notification of Solid Waste Disposal

		written agreements with Tulita, Norman Wells or other approved sites are not obtained, revisions to the Waste Management Plan can be made if required. Recommendation 1) ENR recommends that Enbridge obtain written agreements for accepting all non-hazardous camp wastes as early as possible, prior to construction in order to avoid potential revisions to the Waste Management Plan and possible project delays.		
5	Topic: Sewage Disposal	Comment Section 4.2.2 of the Waste Management Plan states that if sewage and greywater reach on-site storage capacity, mitigation options could include the construction of a disposal pit. ENR notes that if Enbridge intends to develop an on-site sewage disposal facility, additional information is required, such as an operation and maintenance plan, as per the Guidelines for Developing a Waste Management Plan (MVLWB, 2011). If there are to be discharges of sewage effluent from the facility, Enbridge must follow the MVLWB's Water and Effluent Quality Management Policy (MVLWB, 2017). ENR also notes that if an on-site sewage disposal facility is proposed, this will have to be clearly outlined in the scope and conditions of the Water Licence. Recommendation 1) ENR recommends that if Enbridge expects to develop a sewage disposal facility, additional information such as a description of generation volumes and raw wastewater quality, and an operation and maintenance plan is required, as outlined in the Guidelines for Developing a Waste Management Plan (MVLWB, 2011).	Aug 19: No on-site sewage disposal is proposed.	Revise WMP to confirm no on-site disposal of sewage.
6	None	Comment None Recommendation 2) ENR recommends that if Enbridge is proposing to develop a sewage disposal facility, that the Board include appropriate conditions in the Water Licence.	Aug 19: See above.	Noted
7	Topic: Mix-Bury-Cover for Horizontal Directional Drill (HDD) and Hydrovac Mineral Wastes	Comment Section 4.3.1 of the Waste Management Plan states that "if permitted by the Sahtu Land and Water Board (SLWB), and pending substrate testing, mix-bury-cover of the Project's HDD and hydrovac wastes may be conducted along the trench line of the removed pipe segment in order to help	Aug 19: The excavated trench line of the removed pipeline segment may be partially backfilled with drilling mud/hydrovac slurry,	Board will need to develop a decision on whether to permit this method of

backfill the space left by the removed pipeline and any remaining wastes may be disposed of at the on-site gravel pit or another suitable location nearby." ENR notes that the Closure and Reclamation Plan describes the Project area as having extensive and discontinuous permafrost, and that permafrost will be encountered by the HDD during pipeline construction. There is also evidence that the permafrost in the right of way (ROW) around KP 158 is thawing (Wood, 2018). This should be taken into consideration when selecting a disposal method for the drilling wastes. ENR also notes that it isn't clear when the substrate testing will be conducted.

Recommendation 1) ENR recommends that Enbridge provide additional detail on the proposed substrate testing, and consideration for the presence of thawing permafrost.

s standard disposal or not.

construction practice, and additional drilling material will be mixed and buried in a previously disturbed area like the identified gravel pit area; Disposal locations for managing disposal of drilling mud will be identified once mobilization has begun and contractors are on-site (anticipated to be January 2021), in consultation with the GNWT Land Use Inspector, As described in the application, disposal of drilling mud via mix-bury-cover is proposed only in previously disturbed areas. Regardless of the final disposal location(s), Alberta **Energy Regulator** (AER) Directive 50: **Drilling Waste** Management guidelines for Mix-Bury-Cover (section 13) will be adhered to as best practice. Substrate testing is outlined in detail in Section 13 of Directive 50 which is available on the AER's website. If the receiving soils or the drilling fluids do not meet the Directive 50 guidelines, or if onsite disposal is otherwise determined to not be feasible, the drilling fluid will be hauled

			offsite for disposal at an approved facility.	
8	None	Comment None Recommendation 2) ENR recommends Enbridge provide details on the schedule for testing, reporting, and decision for how the drilling wastes will be disposed.	Aug 19: See above.	Required if Bioard accepts mix- bury-cover method or other on-site waste disposal
9	Topic: Granular Materials – Barge Landing Site	Comment Section 4.3.2 of the Waste Management Plan states that granular materials may be required for construction and operation of the potential barge landing site. All granular material placed at the potential barge landing site will be collected, to the extent feasible, upon completion of the Project and returned to the gravel pit and/or disposed of accordingly. ENR notes that it isn't clear why the granular material will not be left in place, as the removal of this material could create additional disturbance. Is the rationale that there is risk of erosion of the material into the water? Recommendation 1) ENR recommends that Enbridge clarify the rationale for removing granular material placed at the potential barge landing site upon completion of the Project, and any protective measures that will be taken to prevent creating additional disturbance to the area while material is being removed.	Aug 19: Enbridge is not anticipating requiring granular materials at the barge landing site as it is a previously utilized barge landing area and portable ramps will be used. In the event that granular material is needed, Enbridge will consult with the GNWT Inspector on the preferable option and can either leave it in place or remove it.	Draft condition #13 for portable ramps
10	Topic: Environmentally Sensitive Areas	Comment ENR notes that as per the Guidelines for Spill Contingency Planning (INAC, 2007), the Spill Contingency Plan should identify any environmentally sensitive areas (e.g. waterfowl habitat, fish spawning areas, etc.). ENR notes that this information has not been included in the Spill Contingency Plan. Recommendation 1) ENR recommends Enbridge identify any environmentally sensitive areas as per the Guidelines for Spill Contingency (INAC, 2007).	Aug 19: The Spill Contingency Plan will be updated.	Revise SCP
11	Topic: Storage Locations for Hazardous Materials	Comment ENR notes that as per the Guidelines for Spill Contingency Planning (INAC, 2007), the storage locations for each of these materials, as well as locations of all response equipment, and environmentally	Aug 19: The Spill Contingency Plan will be updated.	Revise SCP

		sensitive areas should appear on the map of the site. ENR notes that these items have not been identified on Figures 1 and 2. Recommendation 1) ENR recommends that Figures 1 and 2 of the Spill Contingency Plan be revised to identify the storage locations for hazardous materials, locations of all response equipment, and environmentally sensitive areas as outlined in the Guidelines for Spill Contingency Planning (INAC, 2007).		
12	Topic: Material Safety Data Sheets (MSDS)	Comment ENR notes that as per the Guidelines for Spill Contingency Planning (INAC, 2007), an MSDS for each hazardous material should be included in an Appendix. ENR notes that these have not been included with the Spill Contingency Plan. Recommendation 1) ENR recommends that MSDSs be added in an Appendix to the Spill Contingency Plan, as per the Guidelines (INAC, 2007).	Aug 19: The Spill Contingency Plan will be updated.	Revise SCP
13	Topic: Response Organization	Comment ENR notes that the response organization flow chart in section 3.0 of the Spill Contingency Plan does not include contact information for those responsible for activating the plan. Recommendation 1) ENR recommends that Section 3.0 of the Spill Contingency Plan be revised to include contact information for those responsible for activating the plan, as per the Guidelines for Spill Contingency Planning (INAC, 2007).	Aug 19: The Spill Contingency Plan will be updated.	Revise SCP
14	Topic: Set-back from Little Smith Creek	Comment Section 3.2 states that "The existing pipe segment that will be removed via open cut trenching is situated approximately 12m from the edge of the slope failure at the meander bend of Little Smith Creek." ENR notes that it isn't clear if any mitigation measures are in place, or will be implemented to prevent the development of the slope failure near the pipe segment. Recommendation 1) ENR recommends Enbridge clarify any mitigation measures that are, or will be in place to prevent the encroaching slope failure from affecting the stability of the nearby pipe segment.	Aug 19: The purpose of the Project is to mitigate risk to the active pipeline associated with slope instability. The replaced pipeline will be installed at a depth of approximately 60 metres where it will not be susceptible to slope failure.	There will be no mitigation to prevent the bank failure.
15	Topic: In-stream Works	Comment Section 5.2.1.2 of the Closure and Reclamation Plan states that it is possible that the barge landing site may require in-stream	Aug 19: In-stream works are not planned and not contemplated	No in-stream works are planned;

		works. Recommendation 1) ENR recommends Enbridge provide details on when it will be determined if in-stream works will be required.	in the scope of the application. Should instream works be required, Enbridge will apply for an amendment from the Sahtu Land and Water Board including all relevant details.	remove from scope of Licence and Permit
16	None	Comment None Recommendation 2) ENR recommends that if in-stream work is being proposed, that Enbridge provide details about the nature of the work, timing and duration of the work, and associated mitigation measures that will be utilized.	Aug 19: See above.	If in-stream work is planned Enbridge will apply for an amendment.
17	Topic: Potential Barge Landing Area Outline	Comment ENR notes that the outline of the potential barge landing area in Figure 2 in the Spill Contingency Plan does not match the outline in Figure 2 in the Closure and Reclamation Plan. Recommendation 1) ENR recommends Enbridge clarify the outline of the potential barge landing area and ensure it is consistent in figures within all documents.	Aug 19: The CRP will be updated when the SCP and WMP are revised so that all mapping is aligned.	Revise CRP, WMP and SCP
18	Topic: Scope – Potential Upgrades to Barge Landing Site	Comment Scope Item 1, e) in the Draft Water Licence is for maintenance of the existing barge landing on the Mackenzie River; however, Enbridge has stated that potential upgrades to the existing barge landing site may be required. Recommendation 1) ENR recommends that if upgrades are planned for the barge landing site, Scope Item 1, e) should be updated to include this activity.	Aug 19: The addition of granular materials to the existing barge landing area may be required as stated in the application.	confirm scope of Licence and Permit
19	Topic: Mix-Bury- Cover Approach	Comment Part F, Item 7, b) in the Draft Water Licence notes that slurry produced from hydrovac activity will be mixed with native soil and used to backfill the trench in a mix-bury-cover approach, as described in the approved Waste Management Plan; however, this disposal method has not yet been approved. The Waste Management Plan states that: "the feasibility of mix-bury-cover is dependent upon the receiving substrate and the results of sampling to assess the wastes and determine if they need to be treated prior to disposal." It goes on to note that this	Aug 19: As outlined in the application and the Waste Management Plan, Alberta Energy Regulator (AER) Directive 50: Drilling Waste Management guidelines for Mix-Bury-Cover (section 13) will be adhered to as best practice. Substrate testing and	Topic for Board review and decision

		method may be used "pending substrate testing" and "if permitted by the SLWB".	criteria for disposal are outlined in detail	
		Specific details on this method of disposing of drilling waste should be provided and	in Directive 50 which is publicly available	
		assessed prior to licensing.	on the AER's website.	
		Recommendation 1) ENR recommends that the Waste Management Plan not be approved	If the receiving soils or the drilling fluids	
		until substrate testing has been completed in order to evaluate the feasibility of the mix-	do not meet the Directive 50	
		bury-cover method of disposing of drilling wastes and results have been provided to the	guidelines, or if onsite disposal is otherwise	
		Board and reviewers.	determined to not be	
			feasible, the drilling fluid will be hauled	
			offsite for disposal at an approved facility.	
			A summary of activities conducted in	
			accordance with the	
			WMP will be provided to the Board	
			in the Annual Water License Report.	
20	Topic: Species at	Comment Sections 76 and 77 of the Species	Aug 19:	Noted. Due to
	Risk	at Risk (NWT) Act requires the Minister of Environment and Natural Resources to make	Acknowledged.	the Project being located
		a submission to the body responsible for assessing the potential impacts of a proposed		in a pre- disturbance
		development, or for considering a Land Use		area, impacts to wildlife
		Permit or Water Licence application, respecting the potential impacts of the		and d listed
		proposed development, Permit or Licence application on a NWT-listed or pre-listed		species is predicted to
		species or its habitat. NWT-listed species are those that are on the NWT List of Species at		be low.
		Risk. Pre-listed species are those that have		
		been assessed by the NWT Species at Risk Committee (SARC) but have not yet been		
		added to the NWT List of Species at Risk. The Proponent should be aware that NWT-		
		listed or pre-listed species at risk and their		
		habitat may also be subject to protection under existing sections of the NWT Wildlife		
		Act. As a best practice, ENR encourages the Proponent to consider potential impacts,		
		mitigation measures and monitoring requirements for species at risk listed under		
		the federal Species at Risk Act, as well as those designated as at risk by the Committee		
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		Canada (COSEWIC) that may occur in the project area, and the prohibitions that may apply to these species under federal legislation. The project area overlaps with the ranges of the following NWT-listed and/or pre-listed species: . Barren-ground Caribou - Threatened in the NWT . Boreal Caribou - Threatened in the NWT . Little Brown Myotis (bat) - Special Concern in the NWT . Grizzly Bear - Special Concern in the NWT Information on the above species is available at: https://www.nwtspeciesatrisk.ca/SpeciesAtRisk This project exists within a pre-existing disturbance area with limited future disturbance planned. Therefore risks towards the aforementioned species are considered minimal. Recommendation 1) Although the project overlaps with the range(s) of the species listed above, ENR is of the opinion that the nature, scale and/or timing of the proposed project are such that the likelihood of impacts to NWT-listed or pre-listed species listed above can be avoided or minimized if ENR's wildlife recommendations in this letter are implemented as necessary, including the application of any wildlife mitigation and monitoring measures imposed by the Board, and the application of any wildlife mitigation and monitoring measures outlined in the Proponent's applications and supporting documents.	
21	Topic: References	Comment The following references are submitted in support of ENR comments and recommendations: MVLWB, 2011. Guidelines for Developing a Waste Management Plan. March 31, 2011. MVLWB/GNWT, 2017. Guidelines for Effluent Mixing Zones. September, 2017. INAC, 2007. Guidelines for Spill Contingency Planning. Wood Environment and Infrastructure Solutions (Wood). 2018. Hydrotechnical and Geotechnical Update of Remedial Options Report: KP 158, Little Smith Creek Slope Stability Assessment, Line 21 - Norman Wells to Zama Pipeline. Submitted to Enbridge Pipelines (NW) Inc. Edmonton, AB. 27 pp. + appendices.	References Noted

		Recommendation None.		
GN	WT - Lands - Sa	htu Region: Jonathan Gillingham		
ID	Торіс	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response
1	LUP Conditions	Comment Inspectors contact number in Condition 8 Recommendation Please add 867 587 7205	Aug 19: No comment.	Update draft condition
2	LUP Conditions	Comment There is no Condition which ensuring all sump locations be reported to the Inspector Recommendation Add a condition whereby the Permittee is required to report sump location to the Inspector.	Aug 19: No comment.	Add condition to report sump location
3	Securities Calculations	Comment Under Camp (C1) - Solid Waste, there is no number for both burnable and non-burnable waste. Recommendation This requires an update as it does not reflect what is stated in the PDR. Please input # of person-days required to complete this project for both burnable and non-burnable wastes.	Aug 19: No waste is proposed to be disposed of outside of a licensed receiving facility.	There will be no waste burned; there is non-burnable waste that is a liability until disposed. Agree with reviewer.
4	Securities Calculations	Comment There is no calculation for Used Oil, Lubes and Antifreeze: enter number of pieces of heavy equipment. Recommendation Please add the number of pieces of heavy equipment as stated in the PDR to this calculation.	Aug 19: See attached revised Appendix 9 - Closure Cost Estimate.	Agree with reviewer
5	Securities Calculations	Comment E1 does not match what is stated in the Equipment List with the application. Recommendation Update E1 to reflect what the Equipment List states in the application.	Aug 19: See revised Appendix 9 -Closure Cost Estimate.	Agree with reviewer
6	Waste Management Plan	Comment The plan states non-hazardous waste is to be disposed of in Tulita Landfill. is there approval from the Hamlet? Recommendation Supply a letter of approval from the Hamlet of Tulita to dispose of non-hazardous waste in the Tulita landfill.	Aug 19: Draft land use permit condition 37, "Notification of Solid Waste Disposal" provides that the Board and Inspector be notified of acceptance prior to waste disposal.	Agree with Proponent response

Sal	Sahtu Renewable Resource Board: Colin Macdonald					
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Response		
1	Line 21 Replacement Project	Comment The SRRB has no specific comments on the proposed plan if the proponent follows the respective guidelines, regulatory requirements and licence conditions. The section of pipeline needs to be replaced for safe operation and the work will be conducted in the winter when damage to the local environment will be minimal. Good engagement was conducted with the relevant communities and organisations. Recommendation None.		Noted support for Project and good engagement.		



Government of Gouvernement des Northwest Territories Territoires du Nord-Ouest

August 12, 2020

Bonnie Bergsma Regulatory Specialist Sahtu Land and Water Board Box 1, Fort Good Hope, NT X0E 0H0

Dear Ms. Bergsma,

Re: Enbridge Pipelines Inc.

Water Licence Application – S20L1-001 Land Use Permit Application – S20P-003

Enbridge Line 21 Pipeline Replacement Project

KP158 - Little Smith Creek

Request for Comment

The Department of Environment and Natural Resources (ENR), Government of the Northwest Territories has reviewed the applications at reference based on its mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act*, the *Species at Risk (NWT) Act*, the *Waters Act* and the *Wildlife Act* and provides the following comments and recommendations for the consideration of the Board.

Topic 1: Water Sources

Comment(s):

ENR notes that Enbridge Pipelines (NW) INC. (Enbridge) proposes the Mackenzie River, a nearby spring fed waterbody, and Little Smith Creek as water sources for this project. Enbridge states that only one water source is expected to be used, and that the most appropriate location will be determined at a later date.

It isn't clear when the water source will be determined, or when the required comparison of total proposed water use to the available capacity will be provided.

Recommendation(s):

1) ENR recommends that Enbridge clarify when the water source will be

determined, and when the estimated volume comparison of total proposed water use, to available capacity, will be provided, if the spring fed waterbody or Little Smith Creek are selected as the project water source.

Topic 2: Water Use - Camps

Comment(s):

The application notes that a maximum water volume of 5,000 m³ will be required and that water withdrawals will be limited to less than 299 m³/day. It is estimated that the drilling rig will require approximately 25 m³/day. It isn't clear if domestic/camp water usage has been included in these numbers or if the camp water will be sourced externally.

Recommendation(s):

1) ENR recommends that Enbridge clarify the total quantity and source of domestic water usage for the camp.

Topic 3: Map

Comment(s):

The Waste Management Plan does not contain a map to show the overall project location and the proposed location for all waste management activities.

Recommendation(s):

1) ENR recommends that Enbridge provide a project location map showing the proposed location for all waste management activities as per the Guidelines for Developing a Waste Management Plan (MVLWB, 2011).

Topic 4: Waste Receiving Facilities

Comment(s):

Section 2.2.4 of the Waste Management Plan describes that all non-hazardous camp wastes are expected to be hauled to local disposal or treatment facilities, in Tulita or Norman Wells or other approved sites. Enbridge does state that written agreements will be put in place with receiving facilities for the acceptance of wastes prior to commencement of construction. ENR notes that these agreements should be obtained as early as possible so that in the event that written agreements with Tulita, Norman Wells or other approved sites are not obtained, revisions to the Waste Management Plan can be made if required.

Recommendation(s):

1) ENR recommends that Enbridge obtain written agreements for accepting all non-hazardous camp wastes as early as possible, prior to construction in order to avoid potential revisions to the Waste Management Plan and possible project delays.

Topic 5: Sewage Disposal

Comment(s):

Section 4.2.2 of the Waste Management Plan states that if sewage and greywater reach on-site storage capacity, mitigation options could include the construction of a disposal pit.

ENR notes that if Enbridge intends to develop an on-site sewage disposal facility, additional information is required, such as an operation and maintenance plan, as per the Guidelines for Developing a Waste Management Plan (MVLWB, 2011). If there are to be discharges of sewage effluent from the facility, Enbridge must follow the MVLWB's Water and Effluent Quality Management Policy (MVLWB, 2017).

ENR also notes that if an on-site sewage disposal facility is proposed, this will have to be clearly outlined in the scope and conditions of the Water Licence.

Recommendation(s):

- 1) ENR recommends that if Enbridge expects to develop a sewage disposal facility, additional information such as a description of generation volumes and raw wastewater quality, and an operation and maintenance plan is required, as outlined in the Guidelines for Developing a Waste Management Plan (MVLWB, 2011).
- 2) ENR recommends that if Enbridge is proposing to develop a sewage disposal facility, that the Board include appropriate conditions in the Water Licence.

Topic 6: Mix-Bury-Cover for Horizontal Directional Drill (HDD) and Hydrovac Mineral Wastes

Comment(s):

Section 4.3.1 of the Waste Management Plan states that "if permitted by the Sahtu Land and Water Board (SLWB), and pending substrate testing, mix-bury-cover of the Project's HDD and hydrovac wastes may be conducted along the trench line of

the removed pipe segment in order to help backfill the space left by the removed pipeline and any remaining wastes may be disposed of at the on-site gravel pit or another suitable location nearby."

ENR notes that the Closure and Reclamation Plan describes the Project area as having extensive and discontinuous permafrost, and that permafrost will be encountered by the HDD during pipeline construction. There is also evidence that the permafrost in the right of way (ROW) around KP 158 is thawing (Wood, 2018). This should be taken into consideration when selecting a disposal method for the drilling wastes.

ENR also notes that it isn't clear when the substrate testing will be conducted.

Recommendation(s):

- 1) ENR recommends that Enbridge provide additional detail on the proposed substrate testing, and consideration for the presence of thawing permafrost.
- 2) ENR recommends Enbridge provide details on the schedule for testing, reporting, and decision for how the drilling wastes will be disposed.

Topic 7: Granular Materials - Barge Landing Site

Comment(s):

Section 4.3.2 of the Waste Management Plan states that granular materials may be required for construction and operation of the potential barge landing site. All granular material placed at the potential barge landing site will be collected, to the extent feasible, upon completion of the Project and returned to the gravel pit and/or disposed of accordingly.

ENR notes that it isn't clear why the granular material will not be left in place, as the removal of this material could create additional disturbance. Is the rationale that there is risk of erosion of the material into the water?

Recommendation(s):

1) ENR recommends that Enbridge clarify the rationale for removing granular material placed at the potential barge landing site upon completion of the Project, and any protective measures that will be taken to prevent creating additional disturbance to the area while material is being removed.

Topic 8: Environmentally Sensitive Areas

Comment(s):

ENR notes that as per the Guidelines for Spill Contingency Planning (INAC, 2007), the Spill Contingency Plan should identify any environmentally sensitive areas (e.g. waterfowl habitat, fish spawning areas, etc.). ENR notes that this information has not been included in the Spill Contingency Plan.

Recommendation(s):

1) ENR recommends Enbridge identify any environmentally sensitive areas as per the Guidelines for Spill Contingency (INAC, 2007).

Topic 9: Storage Locations for Hazardous Materials

Comment(s):

ENR notes that as per the Guidelines for Spill Contingency Planning (INAC, 2007), the storage locations for each of these materials, as well as locations of all response equipment, and environmentally sensitive areas should appear on the map of the site. ENR notes that these items have not been identified on Figures 1 and 2.

Recommendation(s):

1) ENR recommends that Figures 1 and 2 of the Spill Contingency Plan be revised to identify the storage locations for hazardous materials, locations of all response equipment, and environmentally sensitive areas as outlined in the Guidelines for Spill Contingency Planning (INAC, 2007).

Topic 10: Material Safety Data Sheets (MSDS)

Comment(s):

ENR notes that as per the Guidelines for Spill Contingency Planning (INAC, 2007), an MSDS for each hazardous material should be included in an Appendix. ENR notes that these have not been included with the Spill Contingency Plan.

Recommendation(s):

1) ENR recommends that MSDSs be added in an Appendix to the Spill Contingency Plan, as per the Guidelines (INAC, 2007).

Topic 11: Response Organization

Comment(s):

ENR notes that the response organization flow chart in section 3.0 of the Spill Contingency Plan does not include contact information for those responsible for activating the plan.

Recommendation(s):

1) ENR recommends that Section 3.0 of the Spill Contingency Plan be revised to include contact information for those responsible for activating the plan, as per the Guidelines for Spill Contingency Planning (INAC, 2007).

Topic 12: Set-back from Little Smith Creek

Comment(s):

Section 3.2 states that "The existing pipe segment that will be removed via open cut trenching is situated approximately 12m from the edge of the slope failure at the meander bend of Little Smith Creek."

ENR notes that it isn't clear if any mitigation measures are in place, or will be implemented to prevent the development of the slope failure near the pipe segment.

Recommendation(s):

1) ENR recommends Enbridge clarify any mitigation measures that are, or will be in place to prevent the encroaching slope failure from affecting the stability of the nearby pipe segment.

Topic 13: In-stream Works

Comment(s):

Section 5.2.1.2 of the Closure and Reclamation Plan states that it is possible that the barge landing site may require in-stream works.

Recommendation(s):

1) ENR recommends Enbridge provide details on when it will be determined if instream works will be required.

2) ENR recommends that if in-stream work is being proposed, that Enbridge provide details about the nature of the work, timing and duration of the work, and associated mitigation measures that will be utilized.

Topic 14: Potential Barge Landing Area Outline

Comment(s):

ENR notes that the outline of the potential barge landing area in Figure 2 in the Spill Contingency Plan does not match the outline in Figure 2 in the Closure and Reclamation Plan.

Recommendation(s):

1) ENR recommends Enbridge clarify the outline of the potential barge landing area and ensure it is consistent in figures within all documents.

Topic 15: Scope - Potential Upgrades to Barge Landing Site

Comment(s):

Scope Item 1, e) in the Draft Water Licence is for maintenance of the existing barge landing on the Mackenzie River; however, Enbridge has stated that potential upgrades to the existing barge landing site may be required.

Recommendation(s):

1) ENR recommends that if upgrades are planned for the barge landing site, Scope Item 1, e) should be updated to include this activity.

Topic 16: Mix-Bury-Cover Approach

Comment(s):

Part F, Item 7, b) in the Draft Water Licence notes that slurry produced from hydrovac activity will be mixed with native soil and used to backfill the trench in a mix-bury-cover approach, as described in the approved Waste Management Plan; however, this disposal method has not yet been approved. The Waste Management Plan states that: "the feasibility of mix-bury-cover is dependent upon the receiving substrate and the results of sampling to assess the wastes and determine if they need to be treated prior to disposal." It goes on to note that this method may be used "pending substrate testing" and "if permitted by the SLWB".

Specific details on this method of disposing of drilling waste should be provided and assessed prior to licensing.

Recommendation(s):

1) ENR recommends that the Waste Management Plan not be approved until substrate testing has been completed in order to evaluate the feasibility of the mix-bury-cover method of disposing of drilling wastes and results have been provided to the Board and reviewers.

Topic 17: Species at Risk

Comment(s):

Sections 76 and 77 of the *Species at Risk (NWT) Act* requires the Minister of Environment and Natural Resources to make a submission to the body responsible for assessing the potential impacts of a proposed development, or for considering a Land Use Permit or Water Licence application, respecting the potential impacts of the proposed development, Permit or Licence application on a NWT-listed or prelisted species or its habitat. NWT-listed species are those that are on the NWT List of Species at Risk. Pre-listed species are those that have been assessed by the NWT Species at Risk Committee (SARC) but have not yet been added to the NWT List of Species at Risk.

The Proponent should be aware that NWT-listed or pre-listed species at risk and their habitat may also be subject to protection under existing sections of the NWT *Wildlife Act*.

As a best practice, ENR encourages the Proponent to consider potential impacts, mitigation measures and monitoring requirements for species at risk listed under the federal *Species at Risk Act*, as well as those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) that may occur in the project area, and the prohibitions that may apply to these species under federal legislation.

The project area overlaps with the ranges of the following NWT-listed and/or prelisted species:

- <u>Barren-ground Caribou</u> Threatened in the NWT
- Boreal Caribou Threatened in the NWT
- <u>Little Brown Myotis (bat)</u> Special Concern in the NWT
- Grizzly Bear Special Concern in the NWT

Information on the above species is available at:

https://www.nwtspeciesatrisk.ca/SpeciesAtRisk

This project exists within a pre-existing disturbance area with limited future disturbance planned. Therefore risks towards the aforementioned species are considered minimal.

Recommendation(s):

1) Although the project overlaps with the range(s) of the species listed above, ENR is of the opinion that the nature, scale and/or timing of the proposed project are such that the likelihood of impacts to NWT-listed or pre-listed species listed above can be avoided or minimized if ENR's wildlife recommendations in this letter are implemented as necessary, including the application of any wildlife mitigation and monitoring measures imposed by the Board, and the application of any wildlife mitigation and monitoring measures outlined in the Proponent's applications and supporting documents.

Topic 18: References

Comment(s):

The following references are submitted in support of ENR comments and recommendations:

MVLWB, 2011. Guidelines for Developing a Waste Management Plan. March 31, 2011.

MVLWB/GNWT, 2017. Guidelines for Effluent Mixing Zones. September, 2017. INAC, 2007. Guidelines for Spill Contingency Planning.

Wood Environment and Infrastructure Solutions (Wood). 2018. *Hydrotechnical and Geotechnical Update of Remedial Options Report: KP 158, Little Smith Creek Slope Stability Assessment, Line 21 – Norman Wells to Zama Pipeline*. Submitted to Enbridge Pipelines (NW) Inc. Edmonton, AB. 27 pp. + appendices.

Recommendation(s):

None.

Comments and recommendations were provided by ENR technical experts in the Water Management and Monitoring Division and the Sahtu Region and were coordinated and collated by the Environmental Assessment and Monitoring Section (EAM), Environmental Stewardship and Climate Change Division.

Should you have any questions or concerns, please do not hesitate to contact Patrick Clancy, Environmental Regulatory Analyst at email: patrick clancy@gov.nt.ca.

Sincerely,

Patrick Clancy

Environmental Regulatory Analyst

Environmental Assessment and Monitoring Section Environmental Stewardship and Climate Change Division Department of Environment and Natural Resources

Government of the Northwest Territories

DRAFT CONDITIONS FOR LAND USE PERMIT # S20P-003 - KP158

	Condition			Comments		
26/11/10/10				Comments		
26(1)(a) L 0	26(1)(a) Location and Area 5. The Permittee shall not conduct a DRILLING/ ADIT SETBACK Enbridge respectfully requests that this					
J.	drilling operation or construct an	DRILLING/ ADII SETBACK		condition be removed as it is not applicable.		
	adit or drill site within 100 metres			The HDD entry and exit sites are more than 100		
	(BB3 commented - The HDD			metres from Little Smith Creek and located on		
	alignment for the new pipeline is			the existing ROW which is outside of the scope		
	approximately 75 m setback from			of the Land Use Permit. Also, the wording in		
	Little Smith Creek. Change the			this condition directly conflicts with Condition		
	setback in the condition?) of the			30.		
	Ordinary High Water Mark of any					
	Watercourse, unless otherwise					
	authorized in writing by an Inspector.					
	hispector.					
7.	The Permittee shall confine the	WIDTH RIGHT-OF-WAY		Enbridge respectfully requests that this		
	width of the right-of-way to a			condition be removed. The pipeline right of		
	maximum of 10 metres			way is outside of the scope of the land use		
				permit. The project proposes to use existing access roads for the purposes of the Project,		
				some of which may be wider than 10 metres,		
				for example at turnarounds. The project		
				application indicates that accesses will be		
				"approximately 10 metres".		
26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land						
27.	The Permittee shall slope the sides	EXCAVATION AND		Enbridge anticipates requesting a 1:1 ratio for		
	of Waste material piles, excavations,	EMBANKMENTS		shallow excavations (e.g. less than 2 metres		
	and embankments — except in solid rock — to a minimum ratio of 2:1			deep).		
	vertical, unless otherwise authorized					
	in writing by an Inspector.					
	in writing by an inspector.					

DRAFT CONDITIONS FOR LAND USE PERMIT # S20P-003 - KP158

	Condition			Comments	
28.	The Permittee shall not remove vegetation or operate heavy equipment within 100 metres of the Ordinary High Water Mark of any Watercourse except at the barge landing (BB6 commented - this location to permit the barge landing to be built).	EQUIPMENT: WATERCOURSE BUFFER		Enbridge respectfully requests that this condition be removed due to the location and purpose of the project. The Line 21 pipeline right-of-way, although outside of the scope of this permit, is closer than 100 metres from Little Smith Creek in some areas.	
29.	The Permittee shall not excavate land within 100 metres of the Ordinary High Water Mark of any Watercourse, except at the barge landing and as authorized by DFO and an Inspector.	EXCAVATION SETBACK		See comment on draft condition 28. Also, no instream work is proposed. Should the Board decide to keep this condition, Enbridge suggests removing the reference to DFO authorizations. If the SLWB wishes to retain the reference to DFO Authorizations, Enbridge requests that condition be worded to state: The Permittee shall not excavate land within 100 metres of the Ordinary High Water Mark of any Watercourse, except at the barge landing and as authorized by an Inspector. If authorizations are also required by the DFO, Enbridge will undertake to obtain the required authorizations.	
26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical of Toxic Material					
35.	The Permittee shall dispose of all Toxic Material as described in the approved Waste Management Plan	WASTE CHEMICAL DISPOSAL		Enbridge respectfully recommends that this condition be removed as it is not applicable. Drilling wastes will be non-toxic and are not Toxic Material as defined by the SLWB.	

DRAFT CONDITIONS FOR LAND USE PERMIT # S20P-003 - KP158

	Condition			Comments
	(BB7 Commented - Not sure that there will be toxic material).			
26(1)(j) Prote	ction of Historical, Archaeological, and Bu	rial Sites		
42.	The Permittee shall not operate any vehicle or equipment within 150 metres of a known or suspected historical or archaeological site or 500 metres of a burial ground.	ARCHAEOLOGICAL BUFFER		The project proposes to use the winter road for access, and the AIA for the project filed with the application identifies one site within 500 metres of the winter road bridge. The winter road is a public access road and use of the road by the Project will have no impact on the identified site, as indicated in the AIA. Enbridge respectfully recommends that the condition be removed or amended, as needed.
26(1)(o) Rest	oration of the Lands			
69.	Prior to the end of the land-use operation, the Permittee shall initiate active removal of all nonnative species established in previously disturbed areas (BB9 commented - Reports of several non-native species at the site currently –).	REMOVE NON-NATIVE SPECIES		Enbridge respectfully requests that this condition be removed, as natural revegetation is proposed for the project in accordance with Condition 68 and natural revegetation in this area is incompatible with the removal of nonnative species such as sweet clover.
26(1)(q) Biological and physical Protection of the Land				
72.	The Permittee shall not move any equipment or commence any drilling when one or more caribou are within 500 metres.	CARIBOU DISTURBANCE		Enbridge respectfully requests that this condition be removed as it is not reasonable to enforce monitoring for caribou in this area covering 500 metres from the drilling sites. Wildlife monitors will be present during drilling activities.

DRAFT CONDITIONS FOR WATER LICENCE # S20L1-001 - KP158

	Condition	Location of Activities	Reviewer	Comments
Part c: Sec	curity			
1.	The Licensee shall post and maintain a security deposit of \$	POST SECURITY DEPOSIT		No instream works are contemplated by the Project and the Mackenzie River barge landing is a previously disturbed existing barge landing area. Enbridge has provided a revised Closure Cost Estimate to reflect comments made by the GNWT.
Part E: Co	nstruction			
2.	The Licensee shall ensure that all Engineered Structures (BB12 commented: This would be the pipeline which is being constructed under current authorization by CER and the O and M Manual with design specs.) are constructed and maintained in accordance with the recommendations of the Professional Engineer responsible for the design, including, but not limited to, recommendations regarding field supervision and inspection requirements.	ENGINEERED STRUCTURES – GENERAL		Enbridge has no concerns with the condition as written however notes that it is not applicable to the project as there are no Engineered Structures contemplated in the scope of the Water License application. The construction and operation of the pipeline, including engineering, is regulated by the Canada Energy Regulator.

Subject: RE: S20P-003 - Enbridge Line 21 Pipeline Replacement Project at KP158 - Little Smith Creek

Thursday, August 20, 2020 at 1:23:39 PM Mountain Daylight Time

From: Naomi Smethurst

To: Bonnie Bergsma, Jenna Grandjambe

Thanks Bonnie,

The AIA and AOA reports have been accepted, and I will post our comment on ORS.

Naomi

From: Bonnie Bergsma [mailto:bonnie.bergsma@slwb.com]

Sent: August 20, 2020 12:38 PM

To: Naomi Smethurst; Jenna Grandjambe

Subject: Re: S20P-003 - Enbridge Line 21 Pipeline Replacement Project at KP158 - Little Smith Creek

EXTERNAL: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender's name and email address and know the content is safe.

Hi Naomi,

I am glad you emailed me because I wanted to confirm that the AIA and AOA submitted with the application have been accepted by PWNHC.

You could still post this comment on the ORS so that it is on the record, but I will let the applicant know as well.

Thanks, Bonnie

Bonnie Bergsma, M.Sc. Regulatory Specialist Sahtu Land and Water Board P.O. Box 1 Fort Good Hope NT X0E 0H0 867-496-2778

Bonnie.bergsma@slwb.com

All correspondence to the Board, including emails, letters, faxes, and attachments are public documents and may be posted to the public registry.

From: Naomi Smethurst < Naomi Smethurst@gov.nt.ca>

Date: Thursday, August 20, 2020 at 10:50 AM

To: Bonnie Bergsma <bonnie.bergsma@slwb.com>, Jenna Grandjambe

<jenna.grandjambe@slwb.com>

Subject: S20P-003 - Enbridge Line 21 Pipeline Replacement Project at KP158 - Little Smith Creek

Hi Bonnie and Jenna,

My apologies for the late email regarding this file. I had previously reviewed it with no comments. However, I

just noticed that Appendix 3 – Environment and Socio Economic Assessment contains figures depicting the location of archaeological sites. As per our Archaeological Sites Database Access Agreement, maps showing the location of archaeological sites are not to be made available to the general public unless the scale is 1:2,000,000 or smaller scale and the positional accuracy has been randomized to protect the location of the site.

We therefore request that the proponent remove all maps depicting archaeological sites from Appendix C and D, within Appendix 3.

Should I post this comment on ORS given that it is passed the review deadline? Or can this request be forwarded to the proponent?

Thank-you, Naomi

Naomi Smethurst

Assessment Archaeologist | Archéologue Assessment

NWT Cultural Places Program

Programme des sites culturels des TNO

Prince of Wales Northern Heritage Centre

Centre du patrimoine septentrional Prince-de-Galles

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