

Land and Water Boards of the Mackenzie Valley



LAND USE PERMIT APPLICATION FORM

Subsection 19(2) and Schedule 2 of the [Mackenzie Valley Land Use Regulations](#)

Use an "X" to indicate which Board the Application is being made to:	Mackenzie Valley Land and Water Board:		Sahtu Land and Water Board:	
	Wek'èezhii Land and Water Board:	X	Gwich'in Land and Water Board:	

To complete this Form, please refer to the MVLWB [Guide to the Land Use Permitting Process](#) (Guide) and fill in the grey fields; attach additional pages, as necessary. Indicate N/A in the grey fields for Items or parts of Items that are not applicable. Review the following MVLWB guidance for formatting your Application Package:

- [Document Submission Standards](#)
- [Standard Outline for Management Plans](#)

If applicable, provide the existing or current Land Use Permit file number:	
Use an "X" to indicate if this Application is accompanied by an Application for a Water Licence:	Water Licence – in a non-federal area:
	Water Licence – in a federal area:

1. NAME AND CONTACT INFORMATION – APPLICANT

Applicant's Name:	Laura Duncan		
Position:	Tłı̨chǫ Executive Officer		
Mailing Address:	127 Donda Tili		
Community:	Behchokǫ	Telephone:	867 392 6381
Prov/Terr:	NT	Email:	lauraduncan@Tłı̨chǫ.com
Postal Code:	X0E 0Y0	Other:	

2. NAME AND CONTACT INFORMATION – APPLICANT'S HEAD OFFICE

Include a Certificate of Corporate Registration from the Government of the Northwest Territories in your Application Package.

Use an "X" to indicate if this information is the same as Item 1 above:	
Name:	Same as above

Position:			
Mailing Address:			
Community:			
Prov/Terr:		Telephone:	
Postal Code:		Email:	
Field Supervisor:		Other:	

3. NAME AND CONTACT INFORMATION – CONTRACTORS AND SUB-CONTRACTORS

Include relevant names, responsibilities, and contact information. An additional table should be added for each contractor and sub-contractor.

Name:	Bruno Pigeon		
Position:	Project Manager		
Company Name:	Peter Kiewit Sons ULC		
Mailing Address:	1425 North Service Road, East, Unit 1		
Community:	Oakville	Telephone:	(514) 231-3986
Prov/Terr:	ON	Email:	Bruno.Pigeon@kiewit.com
Postal Code:	L6H 1A7	Other:	

4. LOCATION OF ACTIVITIES

Use the grey fields below to provide or reference the following information:

Maps and Geographic Information System (GIS) Data: Include a map in your Application Package identifying local geographic features, watercourses and water sources, project structures, and location(s) of any proposed waste deposits. Provide geographic coordinates (latitude and longitude) of project features, and the maximum and minimum project boundary in degrees, minutes, seconds, or decimal degrees. Include GIS data in your Application Package, if applicable. Refer to the MVLWB [Guideline for Geographic Information Systems \(GIS\) Submission Standard](#) for providing geographic information.

Minimum latitude:	62°28'53.72"	Maximum latitude:	63°08'54.93"
Minimum longitude:	116°29'07.55"	Maximum longitude:	117°15'12.42"

NTS Map Sheet No.: Provide the map sheet number:

Land Types: Use an "X" to indicate the type(s) of the land on which the activities are proposed:

Free Hold/ Private:	<input checked="" type="checkbox"/>	Commissioner's/ Territorial Lands:	<input checked="" type="checkbox"/>	Federal Land:	<input type="checkbox"/>	Municipal Land:	<input checked="" type="checkbox"/>
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5. ELIGIBILITY

Refer to section 18 of the [Mackenzie Valley Land Use Regulations](#). Use an "X" to indicate which one applies:

18(a)(i):	<input type="checkbox"/>	18(a)(ii):	<input type="checkbox"/>	18(a)(iii):	<input type="checkbox"/>	18(b):	<input checked="" type="checkbox"/>
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6. RIGHTS AND/OR CONTRACTS TO SUPPORT ELIGIBILITY

Contact federal, territorial, and Indigenous governments and other parties to ensure all appropriate rights, authorizations, permissions, dispositions, and contracts have been obtained or are in the process of being obtained (e.g. mineral exploration rights, quarry permits, licences of occupation, leases, access agreements and authorizations, etc.). List and provide confirmation of other authorizations that relate to your activities; reference these in your Application Package (e.g. rights, permits, licences, etc.).

Tłıchq Government is eligible for a permit to carry out this work on Tłıchq Lands, Whatı Community Lands, and lands administered by the GNWT.

- Tłıchq Lands: Tłıchq Government has the right to access and use Tłıchq Lands.
- Whatı Community Lands: see letter from Community Government of Whatı Chief Alfonz Nitsiza indicating full support for the project.
- Lands administered by GNWT: GNWT has been consulted during project planning and is supportive of the project (see email from GNWT).

7. PERMIT TYPE AND CRITERIA

Refer to sections 4 and 5 of the [Mackenzie Valley Land Use Regulations](#). Use an “X” to indicate which permitting criteria apply:

Type A				Type B				Type C	
4(a)(i):		4(b)(i):	X	5(a)(i):		5(b)(i):		(SLWB and WLWB only):	
4(a)(ii):	X	4(b)(ii):		5(a)(ii):		5(b)(ii):			
4(a)(iii):		4(b)(iii):		5(a)(iii):					
4(a)(iv):	X	4(b)(iv):		5(a)(iv):					
4(a)(v):	X			5(a)(v):					
				5(a)(vi):					

8. PROJECT DESCRIPTION

Include your project description in your Application Package, or for small-scale projects, describe your proposed activities in the grey field provided below. Include the name and type (e.g., lake, river) of water source(s), and the purpose and quantity of water to be used (rates, volumes (m³/day)). Indicate the total number of hectares to be used in each phase of the project, as well as through the life of the project.

The project proposes to build approximately 115 kilometers of transport fiber, including associated electronics, rack space and power infrastructure to connect Whati to NorthwTel's fiber line replacing the existing microwave radios. The TASR provides a clear Right of Way and sufficient space for the installation of the fiber along the edge of the newly built road.

The direct buried, armoured fiber cable will be installed within the RoW either in the backslope of the road or towards the edge of the cleared RoW with a cable plow which reduces the impact on the existing ground and road by plowing a small trench to the required depth and laying the fibre simultaneously with little disturbance to the ground surface. Where not possible because of the terrain conditions or other constraints, the cable will be directly buried underneath the shoulder in the road infrastructure by digging a trench. The trench will then be backfilled and restored per the TASR project specifications. Handholes (box-type) structures are also necessary to facilitate fiber line splicing and line maintenance. The handholes will be located at design dictated intervals within the previously cleared TASR RoW.

Along the Tłchq All Season Road, fifteen watercourse crossings were identified including four major river crossings. In addition, over one hundred thirty culverts have been installed to ensure the appropriate drainage of the road. The 15 watercourses will be evaluated and a crossing approach for the fiber will be determined based on least risk to both the natural environment and the integrity of the line. The options for fiber crossing at these locations will either be through conduit attached to the side of the structure or using a Horizontal Direction Drill (HDD). Both alternatives are considered preferred methods by the Department of Fisheries and Oceans to reduce the impacts to fish and fish habitat. The mitigation strategies for each approach to the fiber crossing are fully captured in the current environmental protections for the TASR.

HDD involves using a steerable drill head to drill a pilot hole under a watercourse or other feature. The pilot hole is then used to pull a conduit under the water crossing, the fibre cable is then jettted (pulled through) the conduit. The drill sites will require a working pad on either side of the crossing, as the fibre cable is typically buried at 800mm. The drill shot can be made from surface to surface, with just small pits excavated on both ends for the tie in points to the rest of the buried cable. The small pits can also be utilized for drill fluid (typically bentonite based) containment prior to final disposal. The anticipated water use to facilitate drilling is largely determined by the length of drilling and the diameter of the bore but for this project it will range from 5m³ to a maximum of 60m³ per day.

HDD will also be considered in areas where trenching or plowing can not be effectively employed such as wet or boulder laden areas.

As the fiber line will be installed within an already cleared RoW, there are no adverse environmental effects anticipated from the fiber line installation. Additionally, it is expected that the completion of the TASR and the installation of the fiber line will occur concurrently during the 2021 construction season. Though the fiber installation project will be contracted and tracked separately, the work will be conducted using the same workforce, size/type of equipment (exception of a cable plow attachment on a bulldozer), camp facilities and environmental protections afforded through the existing Land Use Permit #W2016E0004. As such, it is our intention to adopt the previously approved TASR Waste Management Plan, Spill Contingency Plan, and Engagement Plan. We will also follow Fish and Fish Habitat Protection Plan, Water Management and Monitoring Plan, and Erosion and Sediment Control Plan for the fiber installation permit application. Additionally, environmental oversight provided during the construction of the TASR will also extend to the installation of the fiber line.

It should be noted that the installation of the fiber line will require the clearing of trees (5m to 10m) on the north side of Highway 3 for approximately 450m (within the existing Hwy 3 RoW) to access the tie in location with the TASR. It is also proposed that the installation of fiber for the 13km section between the current limit of the TASR and the Community of Whati will also be done concurrently with the future TASR extension and as noted above, will adopt the previously approved TASR plans. Fiber installation within the Community of Whati will utilize existing poles to carry the line to NorthwTel's office but may also require the installation of new poles to the final tie in location

9. CAMP

Describe the proposed camp size and layout. Indicate the number of person-days; explain, with rationale, any variations in the number of people that may be on site over the life of the project.

The proposed project will utilize the Tłıchq All Season Road Main Camp located at Km 19+800. No new infrastructure will have to be established for the life of the proposed project. It is estimated that a crew of 20 personal will be required to complete the Fibre Project. At all times during the construction phase the total people for the Fibre project and TASR will not exceed the camp's capacity.

10. ROADS AND ACCESSES

Provide detailed information about the construction, location, and decommissioning of any roads and accesses.

Use an "X" to indicate if this is to be a pioneered road or access:	Yes		Use an "X" to indicate if the route has been laid out or ground-truthed:	Yes	X
	No	X		No	

Access for the Fibre Optic Line installation will utilize the existing Tłıchq All Season Road Right of Way. No new access will need to be created.

11. PROPOSED WASTE MANAGEMENT METHODS

Use the grey fields below to provide or reference the following information:

Waste Management Plan: Include your Waste Management Plan in your Application Package, if applicable, or for small-scale projects, describe your proposed waste management activities in the grey fields provided below. A template for the Plan can be found in the MVLWB [Guidelines for Developing a Waste Management Plan](#).

Waste Type	Management Method(s)
Garbage:	Domestic waste bin at Main Camp
Sewage (Sanitary and greywater):	Trucked sewage to Yellowknife
Brush and trees:	Mulch or pile and burn
Overburden (Organic soils, waste material, etc.):	Back fill

Off-site Disposal: If waste is proposed to be disposed of off-site within the NWT, written confirmation (e.g., an email, letter, etc.) from the facility/facilities indicating they will accept the waste is required. Include it/these in your Application Package. Please note this information will be required by the Board prior to commencement of activities.

The Tłıchq Fibre Project will utilize the existing Tłıchq All Season Road Waste Management Plan: <https://wlb.ca/registry/W2016E0004>

12. EQUIPMENT

Identify the types of equipment proposed to be used.

Number	Type/Description	Size (weight in tonnes)	Proposed use
2	Bull Dozers (Cat D6)	18 tonnes	Plowing and laying cable
2	Excavators (Cat 336)	35 tonnes	Trenching

1	Loader (Cat 966)	25 tonnes	Moving materials around
1	Manlift	1.25 tonnes	Putting conduit on bridges
1	Backhoe	7.5 tonnes	Moving cable reels around
1	Spider Plow	28 tonnes	Used for trenching/laying cable
1	Horizontal Directional Drill	Undetermined size yet	Drilling under ephemeral watercrossings or inundated ditch lines

13. FUEL

Identify all fuel types proposed to be used.

The Tłıchǰ Fibre Line Project will not require any additional fuel caches or storage infrastructure. The project will utilize the existing TASR fuel storage tanks that are located at Km 19+800 (Main Camp) on the TASR.

14. METHODS OF FUEL TRANSFER

Describe the proposed methods to transfer fuel.

The existing Main Camp fuel storage for the TASR will be utilized for all fuelling requirements for the Fibre Project. Fuel transfer will occur by trained personnel using a smaller fuel truck that will travel the road to active work sites. All equipment fueling will be done in accordance with the approved TASR fueling procedure.

See Appendix E of the Spill Contingency Plan for Fuel Transfer methods for the Tłıchǰ All Season Road, available at: <https://wlb.ca/registry/W2016E0004>

15. SPILL CONTINGENCY PLAN

Include your Spill Contingency Plan in your Application Package, if applicable, or for small-scale projects, provide relevant details in the grey field provided below. An example of this Plan can be found in the INAC [Guidelines for Spill Contingency Planning](#).

The Tłıchǰ All Season Road Project Spill Contingency Plan (available at: <https://wlb.ca/registry/W2016E0004>) will be followed for the Tłıchǰ Fibre Line Project

16. PROPOSED PROJECT SCHEDULE AND TERM

Indicate the proposed project start and completion dates and the time of year the project activities are planned to occur. Describe any anticipated temporary closure(s) or seasonal shutdowns. Indicate the term requested.

Start Date:	May 2021	Completion Date:	November 2022
No shutdowns are scheduled			
Term of Permit Requested:	1 year and 7 months		

17. POTENTIAL ENVIRONMENTAL IMPACTS OF THE PROJECT AND PROPOSED MITIGATIONS

Using the Impact-Mitigation Table below, or the more detailed Table in Appendix D of the [Guide](#), identify all potential impacts and possible mitigations that are relevant to the proposed project, and indicate whether any of the mitigation measures have been developed as a result of input from affected parties. Possible potential impacts are listed below; however, these lists are not exhaustive and may not apply to all projects. All information provided should reflect the size, scale, and nature of the proposed project. Cumulative impacts and climate change must be considered. Attach additional pages if needed.

Potential Impacts <i>Use an "X" to indicate which apply</i>	X	Potential Project Impacts and Proposed Mitigations <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i>
ABIOTIC COMPONENTS		
Land		
Soil contamination	X	Spills to ground – Spill Contingency Plan
Soil compaction		The construction of the Fibre line will occur within the already cleared RoW of the TASR. The erosion and sediment control measures that are in place on the TASR will be maintained for this project. As required for the TASR, routine monitoring of erosion and sediment risks as well as control measures will occur. As required, additional ESC measures will be prescribed to address any potential risks encountered during the fiber installation.
Destabilization/erosion		
Change in soil structure		
Inability to support vegetation		
Other		
Water		
Groundwater		
Water table alteration		The subsurface or above ground installation of fiber at the depths anticipated will not intersect or affect groundwater.
Infiltration changes		
Changes in water quality		
Temperature changes		
Other		
Permafrost		
Loss or change in extent		Fiber installation will occur within the cleared RoW and at depths that will not impact permafrost.
Changes in seasonal fluctuations		
Change in persistence		
Other		
Surface Water		
Water flow or level changes (permanent, temporary, seasonal)		The TASR Fish and Fish Habitat Protection plan provides details and protections for surface water resources along the TASTR RoW and will be carried forward as part of the Fiber Project to ensure surface water remains unimpacted. Significant watercrossings will be further protected by attaching the fiber line (through conduit) to the existing structures. Smaller, ephemeral crossings that have flowing water at the time of construction may require the use of a horizontal directional drill (HDD) to further reduce/mitigate risks of surface water impacts. Also, the erosion and sediment control measures that are in place on the TASR will be maintained for this project.
Drainage pattern changes		
Temperature changes		
Changes in water quality		
Wetland impairment		
Changes to aquatic habitat (see Biotic section below)		
Other		
Air		

Potential Impacts <i>Use an "X" to indicate which apply</i>	X	Potential Project Impacts and Proposed Mitigations <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i>
Changes in air quality		All equipment complies with federal emissions standards and is well maintained and kept clean
Harm to living things		
Increased greenhouse gases		
Other		
BIOTIC COMPONENTS		
Vegetation		
Direct loss of vegetation		Tree clearing will be kept to a minimum as the project remains within the cleared RoW of the TASR. A small (450m long) strip of trees may need to be cleared along Highway 3 but the loss will be kept to a minimum and within the highway RoW.
Loss of Species at Risk or may-be-at-risk plants		
Change in species composition		
Introduction of non-native (invasive) species		
Effects on plant health (dust, metals, toxins)		
Increased risk of fire		
Compaction of vegetation		
Other		
Terrestrial Wildlife Habitat		
Direct loss or removal of habitat, dens, or nests	X	No impacts are expected to occur on the previously cleared TASR RoW. The small area of tree clearing that may be needed along Highway 3 will follow the Wildlife Management Plan to mitigate risks.
Loss or removal of keystone species and/or Species at Risk habitat		
Fragmentation of wildlife corridor		
Direct injury or mortality	X	The project will coincide with the TASR construction season and the fiber installation project will not result in additional risks. Additionally, all mitigation measures provided in the TASR Fiber and TASR Wildlife Management Plans will be adhered to.
Disturbances to key lifecycle stages: breeding, feeding, nesting, staging		Disturbances during sensitive breeding bird periods will be avoided or mitigated following all pertinent regulatory requirements.
Effects on population abundance		
Change in species diversity		
Effects on wildlife health (toxins, metals, etc.)		
Changes to migratory movement patterns		
Changes to predator-prey relationships		
Human-wildlife conflicts	X	Wildlife Management Plan and the Waste Management Plan.
Other		
Aquatic Habitat		
Breeding disturbances		

Potential Impacts <i>Use an "X" to indicate which apply</i>	X	Potential Project Impacts and Proposed Mitigations <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i>
Change in species diversity		
Effects on health (toxins, metals, sediment, etc.)	X	Spill Contingency Plan
Changes to migratory movement patterns		
Changes to predator-prey relationships		
Effects on population abundance		
Change in species diversity		
Other		
CULTURAL COMPONENTS		
Wildlife Harvesting		
Loss or reduction in game species populations		
Effects on traditional land use, subsistence, and harvesting rights		
Other		
Cultural Integrity and Heritage Resources		
Change to or loss of cultural integrity		All work will be completed within the cleared RoW of the TASR and any previously identified cultural resources, if in close proximity of the fiber installation, will have a protection zone established around them.
Change to or loss of traditional lifestyle		
Change to or loss of heritage resource		
Other		
Social and Economic Well-being		
Increased human health hazard and risk		
Economic opportunities or losses (employment, training)	X	Opportunity: Improved internet access for the community of Whati may bring a variety of opportunities and benefits.
Change in ecological, cultural, social, or economic values identified for protection in approved Land Use Plans		
Impairment of the recreational or traditional uses of the land or water		
Impairment of the aesthetic quality of the land or water		
Changes to the use of the area by other non-Indigenous people (e.g. trappers, outfitters, residents, hunters, forest harvesters, other authorized projects)		
Other		

18. CLOSURE AND RECLAMATION

Use the grey field below to provide or reference the following information:

Closure and Reclamation Plan: Describe your plans for closure and reclamation, including any temporary closure(s) and seasonal shutdowns. Include your Closure and Reclamation Plan in your Application Package, if applicable, or for small-scale projects, describe the proposed activities in the grey field provided below. Please also refer to the MVLWB/AANDC [Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories](#).

Closure Cost Estimate: Prepare a Closure Cost Estimate and include it in your Application Package. Applicants are encouraged to contact the Board, prior to applying, to determine which closure-cost-estimate template is most suited to the activities being applied for. Guidance is provided in section 2.2 of the MVLWB/INAC/GNWT [Guidelines for Closure and Reclamation Cost Estimates for Mines](#). If your Application is submitted concurrently with a Water Licence Application, the estimate should include a breakdown of water- and land-related activities and liabilities.

Will Follow the Tłıchq All Season Road Closure and Reclamation Plan available at <https://wlwb.ca/registry/W2016E0004>.

Given the location and timing of the fibre project (within the TASR RoW and during TASR construction), we believe financial security should be minimal. We have provided a closure cost estimate on that basis. We recognize that setting the amount of security is ultimately up to the Board.

19. ADDITIONAL SUPPORTING INFORMATION

Use the grey field below to provide or reference the following information:

Engagement: Conduct engagement, prepare an Engagement Record and Engagement Plan in accordance with the MVLWB [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#), and include them in your Application Package. Templates are provided in the Guidelines. Please also refer to [Information for Proponents on MVLWB's Engagement Requirements](#).

Land Use Plans: Contact the applicable Land Use Planning Board or the Tłıchq Government to discuss conformity with the relevant land use plan(s). Include a Land Use Plan Conformity Table in your Application Package, demonstrating how the project meets the requirements of the Land Use Plan, if applicable.

Traditional (Environmental) Knowledge (TEK/TK): Provision of TEK/TK is mandatory for applications to the SLWB. Other applicants are strongly encouraged to include TEK/TK.

Studies Undertaken to Date: List any relevant studies that support the proposed activities and include them in your Application Package.

A record of the Engagement tracking is included in our application package.

Through collaboration between Tłıchq Government, GNWT, and Kiewit, TK has been considered and incorporated into project planning and the development of management and mitigation practices for the Tłıchq All Season Road project (supporting documents can be found at <https://wlwb.ca/registry/W2016E0004>). The fibre line will be installed in the TASR right of way and all applicable management and mitigation practices for TASR will be followed for the fibre line project.

20. FEES

Refer to section 20 of the [Mackenzie Valley Land Use Regulations](#) for assistance in determining relevant fees.

Type of Fee	Amount (\$)
Application fee:	150 \$
Land-use fees (for federal areas only):	\$
Total Fees:	150 \$

21. SIGNATURE

Laura Duncan, Tłıchǫ Government	Tłıchǫ Executive Officer
Applicant's Name (print) or Company Name	Position (print)

	March 2, 2021
Signature	Date

Please submit completed applications to the Regulatory Manager or Executive Director identified on the "Contact Us" pages of the respective Land and Water Board (www.mvlwb.com, www.wlwb.ca, www.slwb.com, www.glwb.com).