

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:	<input checked="" type="checkbox"/>	Sahtu Land and Water Board:	
	Wek'èezhii Land and Water Board:		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. An application package checklist is provided in the Guide. Review the following MVLWB guidance for formatting your Application Package:

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



Received: October 16, 2023

File #: MV2023C0034

Copied to: BC / Registry

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:	Darren Allingham		
Position:	Exploration and Site Manager - HWY4 Lithium Ltd (subsidiary of Loyal Lithium Ltd)		
Company Name:	HWY4 Lithium Ltd		
Mailing Address:	5107 - 53rd STREET, P.O. BOX 2910		
Community:	Yellowknife	Telephone:	
Prov/Terr:	Northwest Territories	Email:	dallingham@loyallithium.com
Postal Code:	XIA 2R2	Other:	+61 403 462 383

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 this information is the same as Item 1 above:			
Name:	Eileen Marlowe		
Position:	Land and Community Manager - HWY4 Lithium (subsidiary of Loyal Lithium Ltd)		
Company Name:	HWY4 Lithium Ltd		
Mailing Address:	5107 - 53rd STREET, P.O. BOX 2910		
Community:	Yellowknife		
Prov/Terr:	Northwest Territories	Telephone:	780-832-8307
Postal Code:	X1A 2N8	Email:	emarlowe@loyallithium.com
Field Supervisor:	Nathan Schmidt	Other:	nathan@dahrouge.com

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:	Nathan Schmidt		
Position:	Senior Geologist and Secondary Site Manager		
Company Name:	Dahrouge Geological Consulting		
Mailing Address:	103-10183 112 th Street		
Community:	Edmonton	Telephone:	780-434-9808
Prov/Terr:	Alberta	Email:	nathan@dahrouge.com
Postal Code:	T5K 1M1	Other:	

Use an “X” to indicate that contractor and/or subcontractor information is not available at this time.
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4. LOCATION OF ACTIVITIES

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

Traditional Place Name: Akaitcho Territory and M̄qwhì Gogha dè Nìł ǰ̀hèè

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 [Geospatial Data Submission Standards](#) for providing geographic information.

Minimum latitude:	62° 29' 58"	Maximum latitude:	62° 33' 01"
Minimum longitude:	113° 22' 46"	Maximum longitude:	113° 30' 31"

NTS Map Sheet No.: Provide the map sheet number: 085I11 and 085I12

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

Free Hold/ Private:		Commissioner’s/ Territorial Lands:	X	Federal Land:		Municipal Land:	
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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 checked="" type="checkbox"/>	18(a)(ii):	<input checked="" type="checkbox"/>	18(a)(iii):	<input type="checkbox"/>	18(b):	<input type="checkbox"/>
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6. RIGHTS AND/OR CONTRACTS TO SUPPORT ELIGIBILITY

Contact Indigenous, federal, and territorial 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 the proposed activities; reference these in your Application Package (e.g., rights, permits, licences, etc.).

Eligibility Documents submitted with this application:

0. Certificate of Registration.pdf

Licence Letter.pdf

Letter to J Bos (Mining Recorder Manager)

Claim Name	Claim Number	Size (ha)	Expiry Date
HID 1	K19925	410.14	3/1/2026
HID 2	K19926	692.15	3/1/2026
HID 3	K19927	500	3/1/2026
HID 4	K06903	48	6/30/2026
HID 5	K06959	9	6/30/2026
MON-1	M12265	841	12/14/2024

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):	<input type="checkbox"/>	4(b)(i):	<input checked="" type="checkbox"/>	5(a)(i):	<input type="checkbox"/>	5(b)(i):	<input type="checkbox"/>	(SLWB and WLWB only):	
4(a)(ii):	<input checked="" type="checkbox"/>	4(b)(ii):	<input checked="" type="checkbox"/>	5(a)(ii):	<input type="checkbox"/>	5(b)(ii):	<input type="checkbox"/>		
4(a)(iii):	<input checked="" type="checkbox"/>	4(b)(iii):	<input type="checkbox"/>	5(a)(iii):	<input type="checkbox"/>				
4(a)(iv):	<input checked="" type="checkbox"/>	4(b)(iv):	<input type="checkbox"/>	5(a)(iv):	<input type="checkbox"/>				
4(a)(v):	<input checked="" type="checkbox"/>			5(a)(v):	<input type="checkbox"/>				
				5(a)(vi):	<input type="checkbox"/>				

8. PROJECT DESCRIPTION

Include a project description in your Application Package, or for small-scale projects, describe the 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.

See attached Project Description for this small-scale project, below 10 hectares disturbance over the life of the permit, and no water licence sought. Note that HWY4 (and parent company Loyal Lithium) is working collaboratively with other minerals exploration companies operating in the area to reduce the environmental footprint of the project.

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.

Two Heli-portable self-contained camp facilities, with an approximate size of 10m², each for up to a maximum of four people, are sought in this permit application. Also, two survival tents or small heli-portable structures with a generator, Starlink and survival kit will be placed adjacent to operating drill rigs. The temporary mobile camps will be for drillers. If only one drill rig is operating, then only two temporary portable structures will be required. See Project Description.

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	X	Use an "X" to indicate if the route has been laid out or ground-truthed:	Yes	X
	No			No	

See Project Description. New pioneered roads necessary, primarily to be used in the winter season, but also year-round, that branch off the permanent Thompson-Lundmark (Mine) Winter Road/Trail (abbreviated to "TL Trail and Winter Road"). The pioneered routes will include routes across small water bodies that have frozen in the winter season to minimise the track lengths to the project areas. Water use will be less than 99m³ per day.

11. PROPOSED WASTE MANAGEMENT METHODS

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

Waste Management Plan: Include a Waste Management Plan in your Application Package, if applicable, or for small-scale projects, describe the 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:	Any waste will be divided into recyclable items, garbage, and hazardous materials. Any non-recyclable domestic waste will be brought to the City of Yellowknife's solid waste facility. Recyclable items and any hazardous waste will be taken to the appropriate facilities in Yellowknife.
Sewage (Sanitary and greywater):	Outside winter, 1 - 2 porta pottys will be used during summer work, provided by Kavanaugh Waste Removal Services. The porta pottys will be stored in a safe location near drill rigs. In winter toilets will be located within the survival tents and will be serviced regularly; the survival camps are low impact Heli-portable accommodations with a porta potty or pit privy for workers, located adjacent to the drill rig(s), which will be moved wherever the drill rigs are located. Will be disposed of in a sump greater than 100m from the nearest watercourse.
Brush and trees:	Trees will be de-limbed and or cut into suitable lengths so that all parts of the tree lie flat on the ground surface. Brush will similarly be cut to lie flat.

	They will then be spread in the adjacent forest or over a completed drill site (as per the Land Use Permit conditions).
Overburden (Organic soils, waste material, etc.):	N/A
Other (describe):	See Waste Management Plan.

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.

12. EQUIPMENT

Identify the types of equipment proposed to be used.

Number	Type/Description	Size (weight in tonnes)	Proposed use
1 - 2	Diamond Drill	10 tonnes	Core drilling. Maximum of 2 drills on site at any time i.e., may be two diamond drills or one diamond drill and one RC drill (see below).
1 - 2	Reverse Circulation Drill	15 tonnes	Drilling of short holes. Drill rig may be multipurpose and be able to drill RC and diamond core. Maximum of 2 drills on site at any one time i.e., may be one diamond drill and one RC drill or only two RC drills.
1	Helicopter	Varied	Access, drill support, emergency response
1-2	Water Pump	0.03 tonnes	Pump water to/from drill
4	4x4 Vehicles	5-6,000 lbs	Transport of Crew
2	Generator	200 lbs	For use at drill
4	Snowmobile	600 lbs	Access
1	Water Truck	25 tonnes	Access and constructions of winter roads, drill access, >10cm ground coverage
5	D6 Dozer, Snowcat or Grader	25 tonnes each	Snow and ice compaction and removal on drill pads, pioneered and upgraded trails

13. FUEL

Identify all fuel types proposed to be used. Also, see Spill Contingency Plan.

Type of Fuel	Number of containers	Capacity of containers (e.g., litres, pounds)	Type of container (e.g., barrel, tank, tidy tank)	Proposed storage or staging location(s)
Diesel:	30	205 L	Barrels	At drill site and fuel cache
Diesel	2	500 L	Tidy Tank	For transport of fuel to drill site
Gasoline:	10	30 L	Jerry Can	Drill site and fuel cache
Aviation Fuel:	10	205 L	Barrels	At drill site and fuel cache
Propane:	4	45 kg	Cylinders	Drill site
Other: Drill fluids, lubricants, and oil	50	Up to 30L	Pails, tubes	Drill site
Coolant	4	25 L	Vendors Containers	Drill site or pickup truck
Antifreeze	4	Up to 30L	Vendors Containers	Drill site or pickup truck

14. METHODS OF FUEL TRANSFER

Describe the proposed methods to transfer fuel.

On site fuel will be transferred by means of an electric or wobble pump with fuel containers stored in impermeable berms.

15. SPILL CONTINGENCY PLAN

Include a 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](#).

See attached Spill Contingency Plan.

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:	December 15, 2023	Completion Date:	December 15, 2028
Drilling will occur in phases, requiring the assessment of results between each phase. Shutdowns will occur between each phase. See Project Description.			
Term of Permit Requested:	Five Years		

17. POTENTIAL ENVIRONMENTAL IMPACTS OF THE PROJECT AND PROPOSED MITIGATIONS

If the proposed project, or parts of the proposed project, may be exempt from preliminary screening, describe the rationale for the exemption in the grey field below. Include the date of the most recent screening, and/or the environmental assessment or impact review number.

There is currently no active Land Use Permit on the claims and Project area. The MVLWB approved a Land Use Permit (MV2017C0003) for 92 Resources Corp, on these same claims as this Project, that commenced

on March 3, 2017 and expired on March 2, 2022. From the permit application submitted in January 2017, the board was satisfied that the development was screened pursuant to the Mackenzie Valley Resource Management Act, any potential adverse environmental effects were insignificant or mitigable with known technology, and that there was no likelihood that the proposed development might be a cause of public concern. Foremost Lithium, on behalf of Patriot Battery Metals Inc (92 Resources subsidiary), submitted a final plan on May 30, 2022, and a revised final plan on June 3, 2022. An inspector cleared the final plan on June 3, 2022, and on August 8, 2022, the MVLWB issued a Letter of Clearance and closed the Permit. All clean up and restoration was deemed acceptable, and liability removed on the Hidden Lake Property.

Historical mineral exploration work has resulted trails/tracks/bush roads across the project area. More recently exploration work by the 92 Resources Corp. As per the expired permit details shown above. The TL Trail and winter road off of the Ingraham Hwy was originally developed for access to the 1940's era Thompson Lundmark Gold Mine at Thompson Lake, with the property still currently under tenure for both gold and lithium bearing pegmatites and the TL Trail and winter road route has been in continuous use over the last several decades for mining, mineral exploration, mine remediation and recreational activities. There are also trails/tracks/bush roads made from the TL Trail and winter road to the recreational cabins on the East shore of lower Hidden Lake.

Unless the project could be exempt from preliminary screening, 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>	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 Impact: Potential for soil or snow contaminated with either diesel, oil, or other spill materials. Mitigation: Spill Contingency Management Plan will be implemented in the event of an unplanned release. Every effort will be made to avoid contamination of soil.
Soil compaction	X Impact: Compacting of soil due to drill rig Mitigation: Disturbed sites will be re-vegetated, and the disturbed land be returned as close to the original condition as possible. Will ensure the ground is capable to support vehicle movements so that the land is not disturbed. Backfilling and restoring sumps following their use will limit potential for localized erosion.
Destabilization/erosion	X Impact: Destabilization from drill cuttings/water Mitigation: Ground disturbance will be limited to a small footprint which will be reclaimed to its natural state using industry best practices. Each drill casing will be cut off and sealed to ensure level ground.
Change in soil structure	Impact: No significant change in soil structure is expected

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>
Inability to support vegetation		
Other		
Water		
Groundwater		
Water table alteration		Impact: Drillholes are expected to have very limited impact on the water table
Infiltration changes		Impact: No changes to water infiltration is anticipated
Changes in water quality	X	Impact: Potential impact from spills/drill cuttings Mitigation: Depositing drill-cuttings in a natural depression and building sumps at least 100 m from the highwater mark of any water course.
Temperature changes		
Other		
Permafrost		
Loss or change in extent	X	Impact: Thermokarst Mitigation: Capture water in depressions near drill sites
Changes in seasonal fluctuations		
Change in persistence		
Other		
Surface Water		
Water flow or level changes (permanent, temporary, seasonal)	X	Impact: Overuse of water. Mitigation: Water use less than 99 m ³ per day and keep record of usage.
Drainage pattern changes		Impact: Limited impact anticipated
Temperature changes		Impact: Limited impact anticipated
Changes in water quality	X	Impact: Potential for spills or drill cuttings release. Mitigation: Store fuel in appropriate containers and secondary containment and implement spill contingency management plan in event of unplanned release. Use nontoxic drilling fluids and deposit cuttings and inert drill water in nearby depression >100m from highwater mark of any surface water. Spill Contingency Management Plan will be implemented in the event of an unplanned release
Wetland impairment	X	Impact: Possible disturbance from drilling. Mitigation: Ensure proper buffer distances from wetlands to drill site. Store fuel >100 m away in appropriate containment. No machinery over wetland areas in spring/summer months
Changes to aquatic habitat (see Biotic section below)		
Other		
Air		
Changes in air quality	X	Impact: Emissions from vehicles, drills and helicopter Mitigation: Conduct routine maintenance on equipment and use low emissions vehicles when possible
Harm to living things		Impact: Limited impact anticipated

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>
Increased greenhouse gases	X	Impact: Emissions from vehicles, drills and helicopter Mitigation: Routine maintenance on vehicles, generators and engines
Other		
BIOTIC COMPONENTS		
Vegetation		
Direct loss of vegetation	X	Impact: ground disturbance at drill site Mitigation: clear only required vegetation at drillsites and reclaim upon completion of permit to allow for vegetation regrowth
Loss of Species at Risk or may-be-at-risk plants		
Change in species composition		
Introduction of non-native (invasive) species	X	Impact: noxious weeds from equipment Mitigation: ensure all machinery is cleaned prior to mobilization to site
Effects on plant health (dust, metals, toxins)	X	Impact: Potential Impact from Drill water/cuttings Mitigation: limit extent of drill water discharge area
Increased risk of fire	X	Impact: machinery/combustible materials have potential to start fire Mitigation: keep drill sites clean by following Waste Management Plan. Ensure adequate fire suppression supplies at drill sites. Temporarily suspend operation if conditions are too dry.
Compaction of vegetation	X	Impact: Ground disturbance from drill rig Mitigation: establish drill sites on durable surfaces when possible
Other		
Terrestrial Wildlife Habitat		
Direct loss or removal of habitat, dens, or nests	X	Impact: Inadvertently disturb animals with drilling Mitigation: Crew will avoid interaction with any wildlife. Special attention will be paid to minimize the disturbance of and impact on species at risk in the area including wolverine, bank swallow, barn swallow, common nighthawk, horned grebe, olive-sided flycatcher, shortjaw cisco, red-necked phalarope, short-eared owl, and rusty blackbird.
Loss or removal of keystone species and/or Species at Risk habitat	X	See above
Fragmentation of wildlife corridor		Impact: Limited impact anticipated. No road building or line cutting is proposed
Direct injury or mortality	X	Impact: Potential to strike animal with vehicle Mitigation: Drive slowly and obey speed limits. Give animals right of way when spotted.
Disturbances to key lifecycle stages: breeding, feeding, nesting, staging		NIL

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>
Effects on population abundance		NIL
Change in species diversity		NIL
Effects on wildlife health (toxins, metals, etc.)	X	Impact: Drilling fluids, materials left onsite Mitigation: Removal of all potentially harmful substances from the property upon completion of the program e.g., empty fuel containers, domestic refuse, and keep all possible attractants in animal-proof sealed containers.
Changes to migratory movement patterns		NIL
Changes to predator-prey relationships		NIL
Human-wildlife conflicts	X	Impact: Potential harm to people and/or wildlife Mitigation: Implement Waste Management plan to keep work area free of garbage. Do not feed wildlife and ensure staff has appropriate training. no drilling or disturbances will occur within 500 m of any caribou.
Other		
Aquatic Habitat		
Breeding disturbances		NIL
Change in species diversity		NIL
Effects on health (toxins, metals, sediment, etc.)	X	Impact: Drilling fluids, materials left onsite Mitigation: Removal of all potentially harmful substances from the property upon completion of the program e.g. empty fuel containers, domestic refuse, and keep all possible attractants in animal-proof sealed containers.
Changes to migratory movement patterns		NIL
Changes to predator-prey relationships		NIL
Effects on population abundance		NIL
Change in species diversity		NIL
Other	X	Impact: Water withdrawal sites Mitigation: Equip pump hoses with mesh screens and avoid water withdrawal from small streams or lakes
CULTURAL COMPONENTS		
Wildlife Harvesting		
Loss or reduction in game species populations		NIL
Effects on traditional land use, subsistence, and harvesting rights	X	The proposed mineral exploration work will not add significantly to the previous historical and existing disturbances or impinge on existing harvesting rights.
Other		NIL
Cultural Integrity and Heritage Resources		
Change to or loss of cultural integrity		NIL
Change to or loss of traditional lifestyle	X	Impact: The proposed activities are additional to what has occurred previously and what is continuing to occur in the area and is a well-known, understood activity. Mitigation: Implement Engagement Plan.

Potential Impacts <i>Use an "X" to indicate which apply</i>	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 to or loss of heritage resource	X Impact: Disturbance to Archeological site Mitigation: Train workers to identify archeological sites and then follow the "Chance Archeological Find Procedure". Complete Archaeological Overview Assessment and Archaeological Impact Assessment prior to commencement of work and notify workers of identified archaeological sites and the management procedure.
Other	NIL
Social and Economic Well-being	
Increased human health hazard and risk	NIL
Economic opportunities or losses (employment, training)	X Impact: Employment Opportunities HWY4 Lithium has employed an Akaitcho person in the full-time Senior Management role of Land and Community Manager. HWY4 Lithium has also employed (and trained) two local indigenous people on a casual basis for the commenced SRK studies, working with historical drill core from the project. HWY4 Lithium is committed to continuing to provide a broad range of employment opportunities, including business contract opportunities to the local workforce throughout the duration of the Land Use Permit. The Project claims adjoin and are therefore accessible by all-weather road, the Ingraham Trail in all seasons and in winter via the TL Trail or Winter Road and pioneered roads from the TL Trail or Winter Road. The Project being near and accessible all year round from the city of Yellowknife, the workforce can be based in the city, therefore adding significantly to both the size and availability of the potential workforce.
Change in ecological, cultural, social, or economic values identified for protection in approved Land Use Plans	No significant change is anticipated due to the Project being under 10 hectares over the permit life.
Impairment of the recreational or traditional uses of the land or water	No significant change is anticipated due to the Project being under 10 hectares over the permit life.
Impairment of the aesthetic quality of the land or water	No significant change is anticipated due to the Project being under 10 hectares over the permit life.
Changes to the use of the area by other non-Indigenous people (e.g., trappers, outfitters, residents, hunters, forest harvesters, other authorized projects)	No significant change is anticipated due to the Project being under 10 hectares over the permit life.
Other	X Impact: Potential Noise levels from machinery, helicopter and drilling. Mitigation: Baseline noise readings will be taken prior to drilling, during drilling, and after drilling is completed. Mitigation proposed for the noise generated includes using only two drills. Will be closely monitored to ensure limited disturbance to wildlife and surroundings. High level helicopter flying policy will be implemented, with no-fly zone below 1,000 feet except in designated

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>
		landing zones near machinery being operated. To minimize wildlife disturbance, for this Land Use Permit program drill rigs or any other machinery will be shut down, when within 500m if present in the area, including Caribou and all large ungulates including Moose, Bison and/or Muskoxen.

18. CLOSURE AND RECLAMATION

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

Closure and Reclamation Plan: Include a Closure and Reclamation Plan in the Application Package, if applicable, or for small-scale projects, describe the proposed closure and reclamation activities in the grey field provided below. Describe any temporary closure(s) and seasonal shutdowns. 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 Board staff, 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 the Application is submitted concurrently with a Water Licence Application, the estimate should include a breakdown of water- and land-related activities and liabilities.

Upon completion of the exploration work associated with the Type A Land Use Permit Application, all equipment will be removed from the Project Area. Any disturbed land will be reclaimed to as close to its original state as possible to promote natural regeneration and reforestation. Any ground disturbance will be redistributed, all cut vegetation will be cut and laid flat. Each drill site will be visually inspected for any remaining debris or waste and if found will be removed to a Yellowknife Waste Facility. It is expected that no or very little reclamation works will be undertaken on the current upgraded winter roads (TL Trail or Winter Road) and pioneered winter roads will also require little reclamation. Any erosion control measures implemented will be removed at the instruction if the Inspector.

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 Tłjchq 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.

1. There is currently no Land Use Plan in effect for the claims area in which the project is situated.
2. An Archaeological Overview Assessment and Impact Assessment has been contracted to WSP. The survey is being completed prior to commencement of activities associated with this Land Use Permit Application. YKDFN TK Advisor consultants are being utilized to complete this survey. The Lead Archaeologist from WSP will manage on HWY4's behalf three employees, a YKDFN TK Advisor, a Tlicho TK Advisor and a Ekedia Services Bear Monitor. The comprehensive Engagement to date and plan going forward is described both in the attached Engagement Record (Log) and Plan.
3. A Traditional Knowledge survey is currently being organized and planned and is anticipated to be undertaken before drilling work begins. The TK Study/Survey will be done with the YKDFN.
4. A LIDAR survey and very high resolution orthophoto survey has been completed across the entire property with results being processed. These data will produce a very detailed Digital Elevation Model (DEM) that can be used to reduce ground disturbance, determine optimal routes for transport or temporary access. The data can also be used as a baseline to determine any effects of the program on the landscape, especially erosion, if small specific areas are ground surveyed, the new surveys can be compared rapidly with the LiDAR DEM.
5. A real-time satellite imagery study is being undertaken by Geospatial Intelligence Ltd, to provide monitoring data on ground disturbance, and erosion identification and prevention. This is a powerful tool that very few resource companies are using at present.
6. Two studies have commenced with SRK Consulting, including;
 - Geochemical - the first study will geochemically analyse the historical drill core, where additional drilling is planned in this Land Use Permit, for minerals and elements in the rocks to characterize metal leaching and acid rock drainage (ML/ARD) potential of rocks targeted in this exploration program including rock seepage monitoring, and interpretation and modelling of leachate chemistry.
 - Geotechnical – the structural and engineering characteristics of the bedrock are being studied to understand how stable the ground is on the areas targeted for exploration
7. Historical satellite data has been reprocessed to produce a variety of map products useful for identifying biogeography and geomorphology on the claims. These data will be used with other datasets (e.g., including LiDAR and high resolution orthophoto data) to prevent and mitigate erosion, understand optimal infrastructure sites in the future if required. Optimum winter and year-round pioneered road routes have been determined from these images and high resolution 2022 Pleiades visible and infrared satellite imagery.

20. FEES

Refer to the [Guide](#) for assistance in determining relevant fees.

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

21. SIGNATURE

HWY4 Lithium Ltd	Darren Allingham - Exploration Manager
Applicant's Name (print) or Company Name	Position (print)

	16 October 2023
Signature	Date

Review the application package checklist provided in the Guide, and 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).