

December 18, 2023

Chris Hotson  
Regulatory Manager  
Mackenzie Valley Land and Water Board  
P.O. Box 2130  
4922-48<sup>th</sup> Street  
7<sup>th</sup> Floor YK Centre Mall  
Yellowknife, NT. X1A 2P6

**Re: Land Use Permit MV2023C0034 – Lithium Exploration – Hidden Lake, NT Updated Plans Due January 15, 2024**

Dear Mr. Hotson:

I am writing to inform you that the following Plans have been updated and are attached in this email as specified as a requirement in the letter *Hidden Lake Lithium Project – Issuance Package – Land Use Permit MV2023C0034 – Lithium Exploration – Hidden Lake, NT December 12, 2023*;

**HWY4 Lithium - Project Description - V1.1**

**HWY4 Lithium - Engagement V1.1**

**HWY4 Lithium - Spill Contingency Plan V1.1**

**HWY4 Lithium - Erosion Management Plan V1.1**

**HWY4 Lithium - Waste Management Plan V1.1**

Updates to Plans made are described as follows:

**HWY4 Lithium - Project Description - V1.1**

The following updates were made are in both “Document Maintenance and Control” and “Section 2”;

**Page 2** - Document Maintenance and Control: Revision History, and Plans Revised Table

**Page 7** - The project will comply with the conditions and measures set out in the Interim Code of Practice (<http://www.dfo-mpo.gc.ca/pnw-ppe/codes/screens-ecran-eng.html>) and the Measures to protect fish and fish habitat (dfo-mpo.gc.ca). End of pipe screens were identified in the Application form section 17. POTENTIAL ENVIRONMENTAL IMPACTS OF THE PROJECT AND PROPOSED MITIGATIONS. Aquatic Habitat. Mitigation.

**Pages 9 and 10** – Eleven paragraphs starting from “Shutdown of equipment will occur” .....etc.

**HWY4 Lithium - Engagement V1.1**

Summary Section has been updated on page 5 of our Engagement Strategy/Summary/Log, under Tłıchō Government (TG) to include Violet Camsell-Blondin, Manager of Lands Regulation and to cc [lands@tliche.ca](mailto:lands@tliche.ca) in all future engagement practices. Please note that I added the 3<sup>rd</sup> and 4<sup>th</sup> bullets to reflect these changes under the Recommendations column and updated Proponent Response. Updates are as agreed to during the regulatory proceeding.

**HWY4 Lithium - Spill Contingency Plan V1.1**

Includes the fuel storage locations and the maximum spill size information in Section 5 (Page 8) of the Plan as agreed to during the regulatory proceeding.

**HWY4 Lithium - Erosion Management Plan V1.1**

Includes mitigation measures for permafrost Section 2 (Page 5) to reflect updates as agreed to during the regulatory proceeding.

**HWY4 Lithium - Waste Management Plan V1.1**

Update to Appendix B (Page 12) to include letter from Kavanaugh Brothers (Waste Removal Services) as agreed to during the regulatory proceeding.

We look forward to receiving approval by written confirmation of conformity.

Thank you for your guidance throughout this process.

Sincerely,  
Darren Allingham



**Darren Allingham | Exploration Manager**  
**HWY4 Lithium Ltd - a subsidiary of Loyal Lithium Ltd**  
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CC:

**Eileen Marlowe | LAND & COMMUNITY MANAGER**  
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# **HWY4 Lithium Ltd**

A subsidiary of



## **Waste Management Plan for the Hidden Lake Lithium Project V1.1**

**Prepared for the  
Mackenzie Valley Land and Water Board**

**18 December 2023**

**Document Maintenance and Control**

HWY4 Lithium Ltd (HWY4 or The Company) is responsible for the distribution, maintenance, and revisions of this document. This document will be continuously reviewed with changes formally incorporated monthly to include any changes in the Project, best practices, guidelines, Inspector advice/directions, environmental issues and contact information. Monthly changes as well as immediate variations to this document that are deemed urgent with high-risk issues, will be incorporated into and the new document version and will be provided to the Mackenzie Valley Land and Water Board for circulation and approval.

**Revision History**

Revision #	Section(s) Revised	Description of Revision	Issue Date
0	N/A	First version	13 Oct 2023
1	Appendix B	Waste Acceptance letter from Kavanaugh Waste Removal Services	18 Dec 2023

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## **1 INTRODUCTION**

### **1.1 Background**

This Waste Management Plan (WMP) has been developed for the HWY4 Lithium Ltd Hidden Lake Lithium Project (Project). The Project involves surface and sub-surface exploration for lithium and other minerals within the Project mineral claims.

The purpose of the WMP is to provide a guide to all site personnel on the waste management goals, objectives and procedures to be followed during all Project activities, including drilling and access to drill sites. The WMP has been developed in accordance with the Guidelines for Developing a Waste Management Plan (MVLWB 2011). The goals of the WMP are to:

- Protect the natural environment.
- Preserve aesthetic and land use values surrounding Project.
- Establish how the Project complies with all applicable acts, regulations, and Land Use Permit conditions.

This WMP deals specifically with procedures and policies for the safe and responsible handling, storage and disposal of waste materials scheduled for disposal.

### **1.2 Project Contacts**

#### **Primary Contact:**

**Darren Allingham | Exploration Manager**

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#### **Secondary Contact:**

**Adam Ritchie | President - HWY4 Lithium Ltd (a subsidiary of Loyal Lithium Ltd)**

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### **1.3 Roles and Responsibilities**

The Exploration Manager – HWY4 Lithium Ltd is responsible for the implementation of this WMP, reporting, revision approval and provision of the latest versions to the MVLWB. All Project staff and contractors are required to be aware of this Plan and contribute to its implementation.

## **1.4 Legislation and Guidelines**

Various Federal and Territorial acts, regulations, and guidelines applicable to waste management were reviewed in preparing this document. Relevant legislation includes:

- Federal *Transportation of Dangerous Goods Act* and the *Transportation of Dangerous Goods Regulations*
- Federal *Hazardous Products Act* and the *Hazardous Products Regulations*
- Federal *Mackenzie Valley Resource Management Act* and the *Mackenzie Valley Land Use Regulations*
- Northwest Territories *Environmental Protection Act* and the *Used Oil and Waste Fuel Management Regulations*

Relevant guidelines include:

- Guidelines for Developing a Waste Management Plan (MVLWB 2011)
- Guideline for Hazardous Waste Management (GNWT-ENR 2017)
- Guideline For Industrial Waste Discharges in the NWT (GNWT-ENR 2004)
- Northern Land Use Guidelines: Camp and Support Facilities (GNWT-Lands 2015a)
- Northern Land Use Guidelines: Roads and Trails (GNWT-Lands 2015b)

## **2 PROJECT DETAILS**

HWY4 Lithium Ltd plans to be a leader in natural resource management exploring for lithium to contribute to the transformation of the world's energy system and reduce greenhouse gases. The Company's role is to help the NWT community to obtain maximum benefit from its limited natural resources. The Company expects to achieve its vision - to achieve healthy and productive environments for present and future generations - through integrated catchment management and the coordinated and sustainable management of NWT's natural resources. HWY4 is planning to explore the Hidden Lake Lithium Project to investigate the potential for lithium in pegmatites within the mineral claims. Ten drill holes were completed in 2016 that obtained a land use permit and rehabilitation was approved by the MVLWB. The Project will include surface geological mapping and a drill program. It is anticipated that drilling will occur in up to four locations, using up to two drills. Drilling is anticipated to require two to four months to complete, starting upon approval of a Type A Land Use Permit. The drills will be transported to the Project site and between drill sites using a helicopter. Partial clearing of tree vegetation will be required on drill pads and on skid trails, with trees left in places where they do not compromise the safety of workers. Water for drilling will be drawn from local water sources. Water use will be below 99 metres cubed per day, so a water license is not required. Project staff during drilling will include up to seven people, returning to Yellowknife each night. A small Heli-portable temporary low environmental impact self-contained portable camp facility, for up to four people is sought in this permit application. This unit will be Heli-portable and fully self-contained with ablutions restricted to a Heli-portable porta potty and greywater contained within polymer containers that will be Heli-lifted off site to Yellowknife. The temporary mobile camp will be for drillers, so that if only one drill rig is operating then only two people will be on site. The mobile camp will be removed from site during shutdowns. Also, a survival tent or small portable structure with a generator, Starlink and survival kit will be placed adjacent to each operating drill rig.

Waste will be produced only at the Project drill sites, but also on the Ingraham Trail roadside where pickup trucks will be parked. Exact locations are to be determined.

The Project area is in the Taiga shield high boreal ecoregion, characterized by discontinuous taiga forest with frequent bedrock outcrops. The boreal forests are found on land shaped by the movement of glaciers that have migrated during the last glacial period. The forest is primarily spruce forest and mixed forest, with shallow soils and muskeg. Rolling hills are bisected by the Ingraham Trail and the Cameron River. A recent major fire event has occurred in the landscape across all the claims, evident in satellite images.

### 3 WASTETYPES IDENTIFICATION

Waste types that are forecast to be generated by the Project are listed in Table 1 below.

**Table 1: Types of Waste, Description and Estimated Amounts**

Waste Stream	Description and Source	Estimated Amount
Non-recyclable domestic wastes (organic and non-organic)	Organic and non-organic waste including food scraps, non-recyclable plastics.	Less than 1 cubic meter per day
Recyclable domestic waste	Beverage containers, plastics, glass, boxboard, cardboard, and tin cans are used as packaging or to store food, drink, equipment. Paper used for reports or documents.	Less than 5 kilogram per day
Wood and metals	Lumber or other wood products used for construction or transportation, and scrap metal from drilling.	Less than 1 cubic meter per day
Cleared vegetation	Slashed trees and shrubs with possible grubbing.	Amount depends on the type of vegetation present at the drill site, but typically an area of 10 metres by 10 metres
Drill waste	Waste associated with drilling, including drill cuttings, fluid, mud, sediment and any flowback fluid.	Up to 100 kilograms per day
Batteries	For mobile equipment such as GPS and cameras.	Project waste will be limited to less than 1 kg per month
Contaminated soils	Soil or snow contaminated with either diesel, oil or other spilled materials.	Every effort will be made to avoid contamination of snow and soil

Waste Stream	Description and Source	Estimated Amount
Sewage	All human sewage and associated products.	2 porta potties, pit privies or bags
Greywater	Camp greywater	150 liters per day for 4 people but dependent whether there are 2 or 4 personnel on site
Waste oils	Used engine oils from vehicle and equipment maintenance, solvents used to remove grease and oil from machinery.	Less than 50 liters per month of operation
Solvents and antifreeze	From engines possibly contaminated with heavy metals.	Up to one 205 litre drum per month
Filters, containers and absorbents	Used filters from vehicle and equipment maintenance (glycol, oil, water), containers used to store hydrocarbons and absorbent materials used for spill cleanup	Equipment maintenance will occur in approved facilities at Yellowknife, so none will be produced in the Project area. Up to one 205 litre drum per month.
Explosives	Explosive materials used for blasting.	No explosives are to be used at The Project

Potential environmental effects of these waste streams include contamination of water, soil or vegetation.

## 4 MANAGEMENT OF WASTE

This section of the plan describes the procedures that will be followed by site personnel in handling and storing waste. The waste management plan will be implemented to minimize waste production by applying the principles of reducing the use of materials, reusing materials whenever possible, recycling materials, and recovering value from used materials. HWY4 has a Standard Operating Procedure LLI-LU2-2023 which applies to read in parallel with this WMP.

### 4.1 Non-Hazardous, Non-Mineral Wastes

Non-hazardous, non-mineral wastes will be managed as follows:

#### 4.1.1 Non-Recyclable Domestic Wastes

Domestic waste will be returned to the City of Yellowknife Solid Waste Facility (see approval in Appendix B). This waste will be stored in animal-proof containers returned to Yellowknife daily for delivery to the Solid Waste Facility. Work areas will be inspected daily for any waste that may have been overlooked.

#### **4.1.2 Recyclable Domestic Waste**

Beverage containers will be returned to the Bottle Shop Recycling Depot. Mixed paper, cardboard, recyclable plastics (#1, 2, 3, 4, 5, and 7), glass and tin cans will be recycled at the Blue Bin Recycling Stations at the City of Yellowknife Solid Waste Facility.

#### **4.1.3 Wood and Metals**

Lumber and other purchased wood products (i.e., excluding any cleared vegetation) will be deposited in the appropriate area of the Solid Waste Facility. Scrap metal will be deposited in the appropriate area of the Solid Waste Facility.

#### **4.1.4 Vegetation (trees and shrubs) cleared**

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).

#### **4.1.5 Drill Waste**

Drill waste does not contain toxic materials and can be deposited into a sump or natural depression at least 100 metres from the Ordinary High-Water Mark of any Watercourse, as per the Land Use Permit conditions.

#### **4.1.6 Batteries**

Batteries from hand-held equipment (such as AA batteries) the Bottle Depot in Yellowknife for disposal.

### **4.2 Hazardous Waste**

Hazardous waste will be managed as follows.

#### **4.2.1 Contaminated Soils**

In the event of a spill of hazardous materials, contaminated soil will be managed according to the Spill Contingency Plan and transported to KBL Environmental for treatment.

#### **4.2.2 Sewage**

IN winter, pit privies or bags will be used in heated temporary Heli-portable survival and accommodation tents. Two porta potties may be used if working in the summer, provided by Kavanaugh Waste Removal Services. The porta potty will be stored in a safe location near the drill site and can be transported to Highway 4 to be emptied by Kavanaugh Waste Removal Services.

#### **4.2.3 Greywater**

The Project will have a self-contained Hel-portable camp. Greywater will be stored in polymer drums and will be disposed of at least 100m from watercourses.

#### **4.2.4 Waste Oils**

It is expected that all machinery, including drills, will have oil changed at the contractor facilities in Yellowknife. In the unlikely event that an oil change is required at the Project site, waste oils will be collected and stored in labelled purpose-built containers with lids, stored at least 100 metres from a water body and transported to Yellowknife for management by the equipment contractor or to KBL Environmental.

#### **4.2.5 Solvents and Antifreeze**

Solvents and antifreeze will be temporarily stored in purpose-built, sealed containers and removed from site for disposal in Yellowknife, either by the equipment contractor or KBL Environmental.

#### **4.2.6 Filters, Containers and Absorbents**

Used hydrocarbon containers, absorbents and rags produced on site and any used spill response materials, such as fiber pads will be placed in steel drums, labelled (contents and date) for temporary storage. Accumulated contaminated absorbents will be transported to KBL Environmental for management.

### **4.3 Inspections**

Inspections will be completed monthly for all waste management plans to identify risks, non-compliance and to confirm that the Plan is working as intended. Inspections must verify that:

- Waste containers are labelled as to their contents and date.
- Secondary containment is in place and adequate (i.e., no debris / water build-up present limiting containment, etc.)
- Wastes are not stockpiled and are being regularly transported off-site for disposal.
- There are no signs of leaks or spills.
- There is no evidence of wildlife being attracted to waste storage areas.
- No garbage or debris remains at the worksite.

Inspections must be documented, and records retained. Where non-conformances are noted during inspection, corrective action must be taken, and a record of completion retained.

## **5 TRAINING**

HWY4 Lithium is responsible for providing a copy of this Waste Management Plan and any required guidance or direction to all Project employees and contractors. All staff

will undergo an orientation meeting prior to starting work at the Project. This orientation will include:

- Individuals' roles and responsibilities
- Identification of the various types of waste
- Instructions on how waste streams are separated and managed.

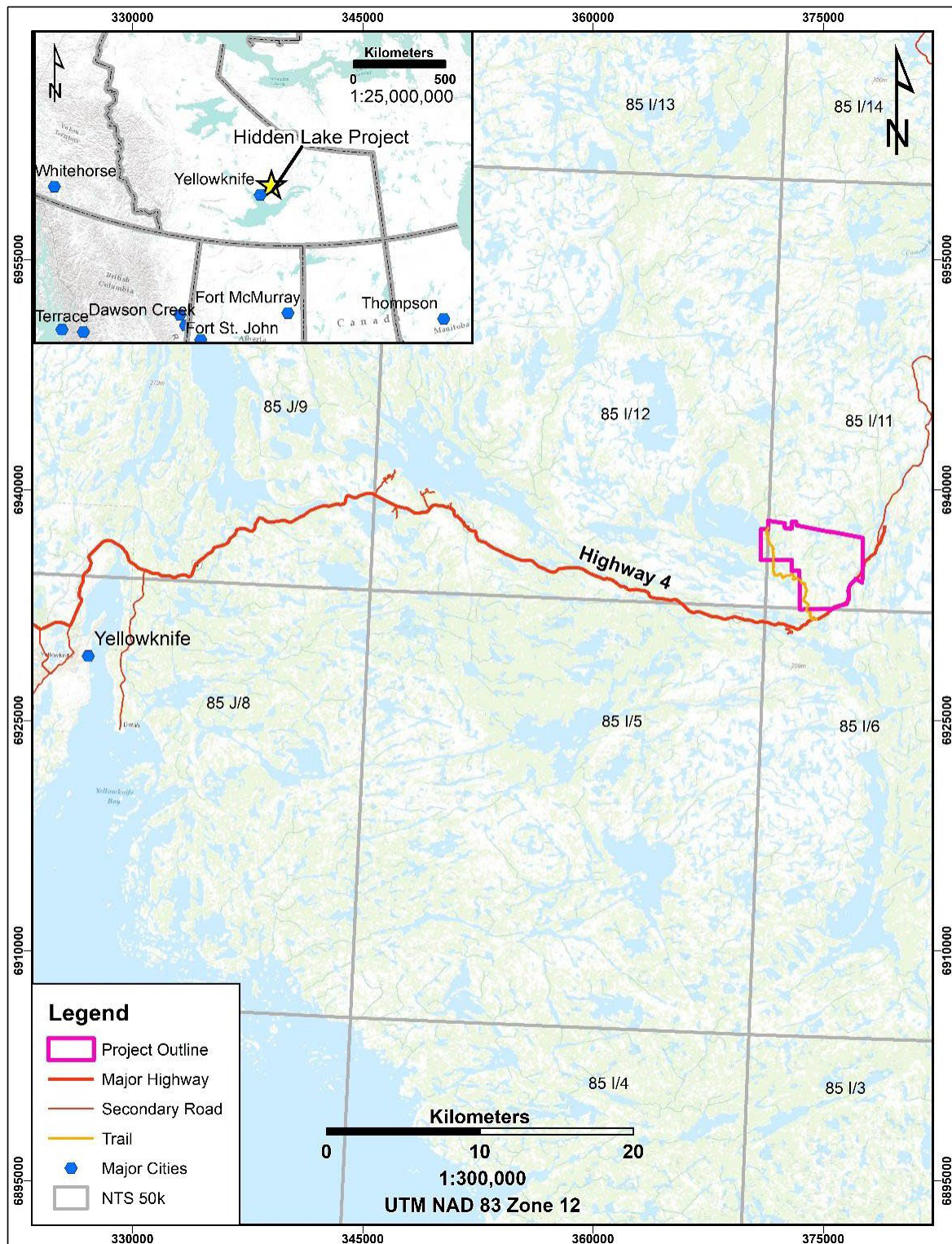
In addition, HWY4 Lithium Ltd will host daily contractor meetings, and weekly safety and operational meetings, where waste and spill management plan issues will be comprehensively reviewed and recorded.

Transportation of Dangerous Goods (TDG) Regulation training will be provided to any employees responsible for the coordination of hazardous waste (i.e., dangerous goods) shipments off-site. Only TDG trained employees or certified contractors will prepare, review and sign waste manifests / shipping documents, in accordance with regulatory requirements.

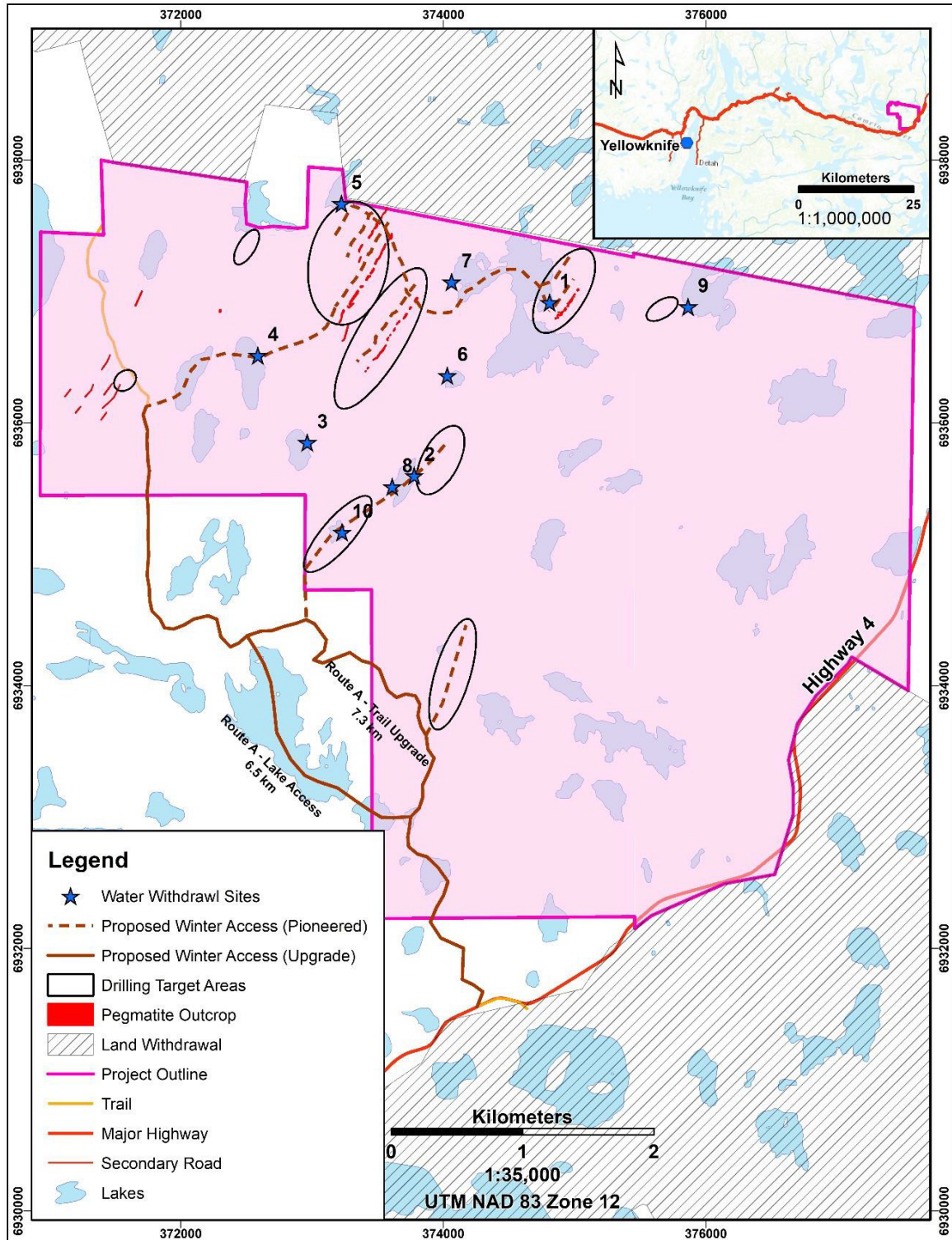
## 6 REFERENCES

- GNWT-ENR (Government of Northwest Territories Department of Environment and Natural Resources). 2004. Guideline for Industrial Waste Discharge in the NWT. Yellowknife, NWT. Retrieved March 2018 from: [http://www.enr.gov.nt.ca/sites/enr/files/guidelines/industrial\\_waste\\_guidelines.pdf](http://www.enr.gov.nt.ca/sites/enr/files/guidelines/industrial_waste_guidelines.pdf)
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- MVLWB (Mackenzie Valley Land and Water Board). 2011. Guidelines for Developing a Waste Management Plan. MVLWB, Yellowknife, NWT. Retrieved August 2014 from: <http://mvlwb.com/resources/policy-and-guidelines>.

**Appendix A: Project Maps**



**Figure 1 Project Location and Access Map**



**Figure 2 Proposed Drilling Areas and Water Withdrawal Locations**

## Appendix B: Waste Acceptance Approvals



November 15, 2023  
Loyal Lithium Ltd.  
RE: HWY4 Lithium Drill Program Waste Acceptance Letter

To whom it may concern,

This letter confirms Kavanaugh Waste Removal Services will haul non-hazardous waste materials generated by Loyal Lithium Ltd located at their Hidden Lake Drilling Program located 45KM East of Yellowknife.

Below are the waste streams that can be accepted:

- Non-recyclable domestic wastes; Organic and non-organic waste including food scraps, non-recyclable plastics.
- Recyclable domestic waste (cardboard, etc)
- Wood and metals (separate construction bins; no appliances)

If you have any further questions, please contact:

Brendan Lush – 867-444-9754  
General Manager

Kevin Stapleton – 867-445-7988  
Controller

Kavanaugh Waste Removal Services – 867-873-2811  
General Inquiries

*Brendan Lush*  
General Manager



Contact

P 867.873.5263  
F 867.669.5555  
kblenv.com

Address

17 Cameron Rd  
P.O. Box 1895  
Yellowknife, NT X1A 2P4

July 19th, 2023

Loyal Lithium Ltd.

Re: Hidden Lake Project

To Whom It May Concern:

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This letter is to confirm that KBL Environmental Ltd will accept both hazardous and non hazardous waste materials generated as a result of Loyal Lithium Ltd and their Hidden Lake drilling program located approx 45 km east of Yellowknife . Material will be accepted at our permitted Waste Transfer facility located in Yellowknife, NT at 17 Cameron Road (License Number NTR000123). More specifically, the waste streams that we can accepted from this specific project are (but not limited to):

- 1. Lead Acid Batteries
- 2. Used Oils
- 3. Solvents and Antifreeze
- 4. Filters and Absorbents
- 5. Hydrocarbon Contaminated Soils

Should you have any questions or require further information please call the office at 867-873-5263

Sincerely,

A handwritten signature in blue ink that reads "Caitlyn Thompson". The signature is written over a horizontal line.

Caitlyn Thompson  
Operations Manager  
KBL Environmental Ltd.