

Erosion Management Plan

for the

Prestige Lithium Project

Prestige Lithium Inc.

Prepared for the

Mackenzie Valley Land and Water Board

October 25, 2023

Document Maintenance and Control

Prestige Lithium Inc. is responsible for the distribution, maintenance and updating of this document. This document will be reviewed annually at least, and more frequently to include any changes in the Project, best practices, guidelines, advice from the Inspector, contact information or environmental factors. Revised versions will be provided to the Mackenzie Valley Land and Water Board for approval and circulated accordingly.

Revision History

Revision #	Section(s) Revised	Description of Revision	Issue Date
0	N/A	First version	29 June 2023
1	All	Track changes removed.	17 July, 2023
2		As per MVLWB October 18/23 letter	25 October 2023

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1 INTRODUCTION

1.1 Background

This Erosion Management Plan (EMP) has been developed for the Prestige Lithium Inc. (Prestige Lithium) Prestige Lithium Project (the Project). The Project involves surface and sub-surface exploration for lithium and other minerals within the Project mineral claims.

Erosion is the displacement of surface soil by naturally occurring processes that cause the detachment (entrainment) and transport of soil materials from one location to another. The natural processes (e.g., rain, flowing water, wind, and frost) responsible for erosion can be considerably accelerated through human activities. Sedimentation is the deposition of soil particles by moving water (GNWT 2013).

The purpose of the EMP is to outline how Prestige Lithium will reduce erosion potential that may result from Project overland drill moves in snow-free conditions. The goals of the sediment and erosion management are to:

- Protect the natural environment, particularly soils, permafrost and water
- Preserve aesthetic and land use values surrounding Project
- Demonstrate how the Project will comply with all applicable acts, regulations, and Land Use Permit conditions

1.2 Project Contacts

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1.3 Roles and Responsibilities

The Project Manager is responsible for the implementation of this Plan, approval of any changes, and reporting. 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 are applicable to sediment and erosion control, including:

- The federal *Mackenzie Valley Resource Management Act* and the Mackenzie Valley Land Use Regulations
- The federal *Fisheries Act*
- The territorial *Waters Act* and the Waters Regulations

Relevant guidelines include:

Erosion and Sediment Control Manual (GNWT 2013)

Northern Land Use Guidelines. Access: Roads and Trails (GNWT 2015)

2 PROJECT DETAILS

Prestige Lithium is planning the Prestige Lithium Project to further investigate potential lithium mineralization within the Mineral Claim areas. The Project will include surface geological mapping, and a small drill program. It is anticipated that drilling will occur in up to eight locations after permits are issued, using one drill. Drilling is anticipated to require two to six weeks to complete, starting after permits are issued. The drill will be transported to the drill sites by helicopter. Clearing of vegetation may be required on drill pads and on skid trails. Water for drilling will be drawn from local water sources. Water use will be below 99 cubic meters per day, so a water license is not required. Project staff during drilling will include up to six people, working days and returning to camp. Additional drilling may occur in future years.

Erosion is most likely to occur during water discharge. Water discharge will be into a sump so transport of eroded material and downstream sedimentation is unlikely.

The Project area is in the Taiga shield high boreal ecoregion, and is characterized by discontinuous taiga forest with bedrock outcrops. The forest is primarily spruce forest and mixed forest, with shallow soils and some muskeg.

3 PREVENTATIVE MEASURES

The following measures are proposed to prevent erosion.

- Drill sites will consider the following characteristics (GNWT 2015):
 - Flat terrain that is less likely to erode
 - Stable and durable land that is able to withstand repeated use
 - Presence of rock outcrops with minimal soil
 - Minimal need to remove vegetation

- Absence of permafrost and muskeg that may degrade if disturbed
- Vegetation will be cut above ground level, to preserve root masses and encourage regrowth.
- Natural drainages will not be obstructed (as per Permit conditions).
- Suitable erosion control will be installed at the first sign of erosion and maintained for the duration of the Project (as per Permit conditions).

4 EROSION CONTROL MEASURES AND INSPECTION

4.1 Erosion Control Measures

If erosion is observed or considered likely, the following Erosion Control Best Management Practices will be considered. Details are available in GNWT 2013.

- Scheduling (BMP #25) is the timing of activities to limit soil disturbance.
- Sediment Fence (BMP #1) is the temporary installation of a sediment fence perpendicular to flowing water. Sediment fences are effective and commonly used, but require maintenance and eventual removal.
- Mulching (BMP #16) is the application of organic material (typically chipped trees) as a protective layer to the soil surface for protection and to encourage plant growth. This method is simple and uses locally available materials but is less effective on slopes.
- Live Staking (BMP #20a) consists of installing woody plant cuttings (willow, aspen and poplar are effective) before leafing out, to develop a root matrix within the soil, increasing subsurface soil strength and stabilizing slopes. The advantage of this approach is the use of local materials that provide permanent erosion control but is most effective only if the cuttings take root and begin to grow.

The most suitable BMP will be selected in consultation with the Inspector.

4.2 Inspections

Inspections of drill sites will be completed daily. Inspections must verify that:

- There is no sign of rutting or gouging.
- Any Erosion Control Measures are intact and functioning as required.

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. An Inspection and Maintenance Form is provided in Appendix A.

4.3 Erosion Control Removal

Of the BMPs suggested, only the Sediment Fence (BMP #1) will require removal. Sediment fences will only be removed if (GNWT 2013):

- Revegetation of bare soil is successful.
- No obvious erosion scour is observed.
- No obvious bed load of silt and sediment laden runoff is observed.
- The Inspector agrees that the sediment fence may be removed.

4.4 Reclamation

Reclamation of disturbed soils will be completed upon demobilization from the site. This will include restoration of all soil damage, recontouring if necessary, and laying of cut timber.

5 REFERENCES

GNWT. 2013. Government Of The Northwest Territories, Department Of Transportation - Erosion And Sediment Control Manual. <https://www.inf.gov.nt.ca/sites/inf/files/resources/doterosionandsedimentcontrolmanual-mar3116.pdf>

GNWT 2015. Northern Land Use Guidelines. Access: Roads and Trails. <https://www.lands.gov.nt.ca/sites/lands/files/resources/nlugroadstrails2015english16sept2015.pdf>

Appendix A: Erosion Control Inspection and Maintenance Form

Prestige Lithium Project
Erosion Control Inspection and Maintenance Form

Complete one sheet for each erosion control installed.

Date	
Name	
Current Activities on Site	
BMP Type	
Location	
Intended Function	
Sediment Levels (circle one)	None - 1/4 - 1/2 - 3/4 - Full - Not applicable
General Condition (circle one)	Poor - Fair - Good
General Performance (circle one)	Poor - Fair - Good
Is maintenance required? Describe.	
Was maintenance completed? Describe.	
Date that maintenance was completed.	
Photo numbers	