



WASTE MANAGEMENT PLAN:
LUPIN MINE WINTER ACCESS ROAD PROJECT

May 2024



Plain Language Summary

This Plan describes possible effects the Project may have on wildlife and their habitat and describes what Lupin Mines Inc. (Lupin Mines) will do to minimize the effects from the Lupin Mine Winter Access Road. The road follows an existing alignment from Lac de Gras in the Northwest Territories (NT; Lac de Gras) to the Lupin Mine in Nunavut (NU; Lupin).

Revision History

Revision #	Date	Section	Summary of Changes	Author	Approver
1	Apr 2024	All	New document	N. McLaren	



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1.0 Introduction

In support of ongoing reclamation of the Lupin Mine, Lupin Mine Incorporated is planning to access the Lupin Mine in winter along a portion of the existing Tibbitt to Contwoyto Winter Road corridor between the Ekati Mine turnoff on Lac de Gras and the Lupin Mine in Northwest Territories and Nunavut, respectively (the Project). This Plan considers the guidance and requirements provided in the documents listed in Table 1.

Table 1 Relevant guidance documents including legislation, permits and licences.

Document	Authority
MVLWB Guidelines for Developing a Waste Management Plan (2011a)	Mackenzie Valley Land and Water Board
Contingency Planning and Spill Reporting in Nunavut: A guide to the new regulations	Government of Nunavut
Environmental Guideline for the General Management of Hazardous Waste in Nunavut (2010)	Government of Nunavut
Guideline for Hazardous Waste Management (2017)	Government of Northwest Territories
A Guide to the Spill Contingency Planning and Reporting Regulations (2011)	Government of Northwest Territories
<i>Nunavut Water Nunavut Surface Rights Tribunal Act (2002) and Nunavut Water Regulations (2013)</i>	Indigenous and Northern Affairs Canada
<i>Territorial Lands Act (1985) and Land Use Regulations (2016)</i>	Indigenous and Northern Affairs Canada
<i>Mackenzie Valley Resource Management Act (1998)</i>	Government of Canada
<i>Northwest Territories Lands Act (2014)</i>	Government of Northwest Territories
<i>Northwest Territories Lands Use Regulations (2014)</i>	Government of Northwest Territories
<i>Northwest Territories Waters Regulations (2014)</i>	Government of Northwest Territories
<i>Environmental Protection Act (1988)</i>	Government of Northwest Territories, Nunavut
<i>Waters Act (2014)</i>	Government of Northwest Territories
<i>Spill Contingency Planning and Reporting Regulations (1993)</i>	Government of Northwest Territories, Nunavut
<i>Canadian Environmental Protection Act (1999)</i>	Environment and Climate Change Canada
<i>Environmental Emergency Regulations (2003)</i>	Environment and Climate Change Canada
<i>Transportation of Dangerous Goods Act (1992)</i>	Transport Canada
<i>Transportation of Dangerous Goods Regulations (2012)</i>	Transport Canada
<i>Hazardous Products Act (1985)</i>	Health Canada

1.1 Company Name

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1.2 Scope



The Program involves constructing and operation a portion of the Tibbitt to Contwoyto Winter Road (TCWR) route from the Ekati Mine turnoff on Lac de Gras to Lupin to mobilize and demobilize equipment and supplies that may be used for ongoing reclamation of Lupin in the Kitikmeot Region of Nunavut (the Program). The Program includes transportation only of equipment and supplies such as bulk fuel, soda ash, and lubricants activities occurring at the Lupin mine site are authorized elsewhere and are outside of the scope of the Program.

Waste management goals include limiting impacts to the environment including terrestrial and aquatic resources, and operating in a manner that is compliant with all authorizations.

The objectives of this Plan are to:

- Ensure employees and contractors are trained to manage waste in a compliant manner; and
- Outline appropriate waste management measures to ensure environmental protection.

1.3 Site Description

The Winter Road occurs along an existing route established in the 1970's and since used intermittently to service the Lupin Mine and the Jericho Mine. The Winter Road route predominantly traverses lakes, with few portages where the road occurs overland. Of the 213 km, 95 km occur in Northwest Territories and 118 occur in Nunavut. Seven (7) portages occur in Northwest Territories and there is one (1) portage in Nunavut. Staging areas along the route which may be utilized to store equipment and fuel include existing portage areas as discussed with and approved by the Inspector.

The Winter Road occurs entirely above the tree line, with overland portions traversing the barren lands of the Southern Arctic Ecozone and the Tundra Shield Low Arctic Ecoregion, within the Slave Geologic province. Portages generally follow low-lying terrain found between lakes along the road route (EBA 2001, Ecosystem Classification Group 2012).

The Winter Road is accessed in mid- to late-winter only. At this time, ground is frozen and snow covered, and ice thickness on lakes is up to 2 m thick.

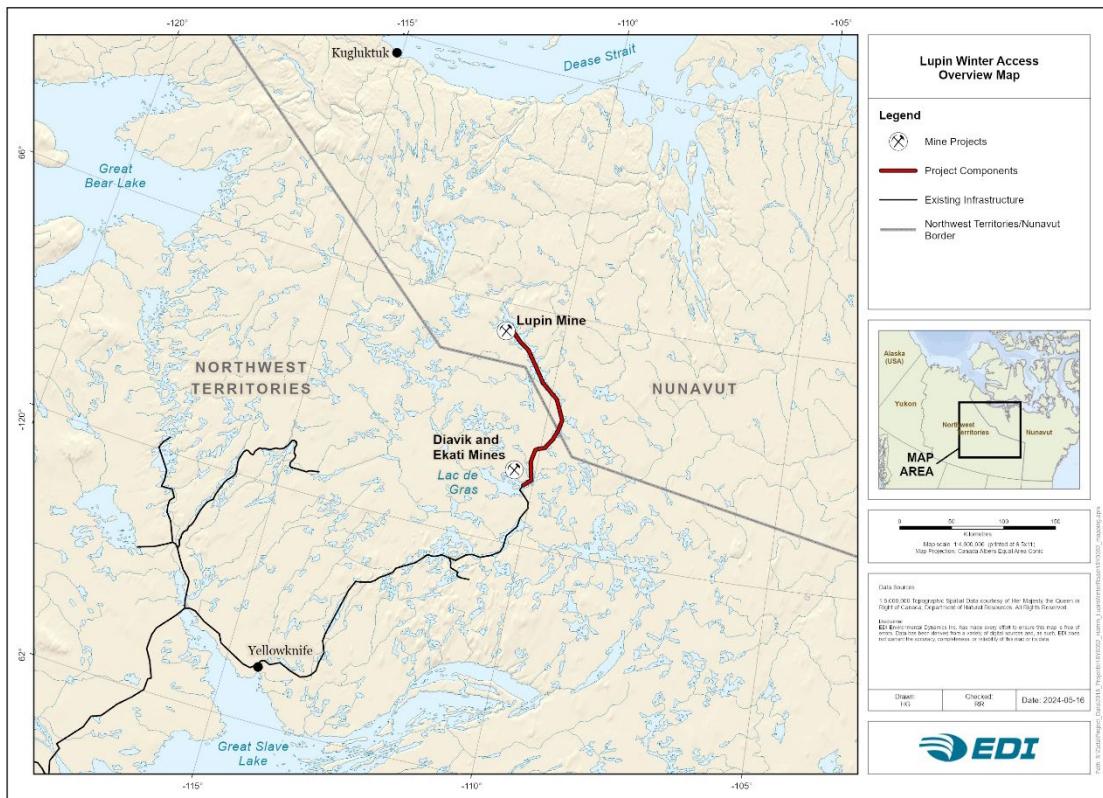


Figure 1 Lupin Mine Winter Program location.

1.4 Plan Management

The Project Manager or designate is responsible for Plan implementation.

A copy of this Plan is maintained in the Lupin Mine's office in both Yellowknife and on site at Lupin.

The Plan will be reviewed annually by the Project Manager and updated as needed. When material changes occur, the updated document will be issued externally as needed.

1.5 Waste Management Activities

Given the nature of the Program, being transportation, limited waste management activities are expected to occur in association with the Program. Any waste produced will be collected for appropriate offsite disposal either at the Lupin Mine or backhauled offsite to a suitable waste receiver.

2.0 Waste Types

Types of waste that may be generated through the Program include:

- Non-mineral waste: domestic waste;
- Potentially hazardous waste: spent spill response materials.



2.1 Non-Mineral Waste

Domestic waste may be generated by driver's eating in their trucks, and/or use of the emergency shelter in an emergency situation. This waste volume is expected to be minimal.

A potential environmental effect of improperly managing this waste stream may be the attraction of wildlife to the work area or road corridor.

2.2 Potentially Hazardous Waste

Spent spill response materials may be generated in the event of an unplanned release from vehicles constructing, maintaining or decommissioning the road, or vehicles transiting the road. Due to a robust safety and maintenance program, no waste of this type is expected to be generated; however, in the event of an unplanned accident the volume of waste generated may vary depending on the magnitude of the spill.

A potential environmental effect of improperly managing this waste stream may be an impairment of water quality.

3.0 Waste Management

3.1 Non-Mineral Waste

Domestic waste will be collected by the individual generators and disposed of in designated containers at Lupin, for further disposal or treatment at existing facilities, such as incineration or landfilling. Recyclable materials such as beverage containers will be collected and recycled off site.

Should the emergency shelter be used, wastewater will be disposed of the existing permitted Lupin mine waste disposal facilities.

3.2 Potentially Hazardous Waste

Should a spill occur and waste materials arise from the spill response, they will be collected and backhauled for disposal and/or treatment off site at a suitable facility.

4.0 Waste Infrastructure

There is no waste management infrastructure construction or operation included with this scope.

Approved use of existing waste management infrastructure may occur at Lupin.

5.0 Roles and Responsibilities

Lupin Mines Incorporated is responsible for activities associated with Lupin winter access, including implementation and management of this Plan.

5.1 Staff, Contractors, Suppliers and Visitors

All personnel conducting activities on site, including staff, contractors, suppliers, and visitors, are required to implement this Plan as it pertains to their activities on site. Specifically, these responsibilities include:



- Disposing of domestic waste in designated containers;
- Responding to spills in accordance with the *Spill Contingency Management Plan*;
- Cooperating with your supervisor and/or Lupin Mine management to implement a waste management program;
- Carrying out only those duties and tasks that you are experienced at and trained to perform;
- Where there is uncertainty, asking questions and bring concerns to the attention of your supervisor when working with waste.

5.2 Managers and Supervisors

Managers and supervisors have a responsibility to ensure that staff, contractors, consultants, and visitors have been trained in Lupin Mine waste management expectations and procedures.

6.0 Reporting and Documentation

Waste management reporting will occur in accordance with record keeping and reporting requirements of various project authorizations.

7.0 Training

All attendees to site participate in a site orientation which outlines waste management expectations, roles, and responsibilities.