



GRANTS LITHIUM PROJECT

Environmental Impact Statement

Appendix S

Vegetation Clearing Procedure

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October 2018



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Vegetation Clearing and Management Procedure

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1 INTRODUCTION

Core Exploration Limited (Core) propose to develop the Grants Lithium Project (the project) open-cut mine located within ML31726, approximately 24 km south of Darwin and 22 km northwest of Berry Springs. The proposed mine site is located within Mineral Lease ML31726, which covers an area of 750 ha. Construction of the mine will require clearing of approximately 145 ha of native vegetation, with the remainder of the ML providing a vegetated buffer to surrounding areas. The project also requires the clearing of 6 ha (6 km by 10 m) to install a pipeline to transport water from Observation Hill dam to the mine site.

The Terms of Reference issued by the NT EPA for preparation of an Environmental Impact Statement (EIS) require a Vegetation Clearing and Management Procedure be prepared. This procedure is a supporting document to the project Environmental Management Plan (EMP) submitted as Chapter 10 of the EIS. The procedure will be updated based on feedback provided through the EIS process and a final version will be provided with the Mining Management Plan submitted for authorisation under the *Mining Management Act*.

1.1 Disturbance footprint

The disturbance footprint is dominated by *Eucalyptus miniata*, *E. tetradonta* and *Corymbia bleeseri* woodland over open tussock grassland. This vegetation type covers 75 % of the footprint. Drainage lines with *Pandanus spiralis*, *Lophostemon lactifluus* and *Livistona humilis* isolated trees over tussock understorey, and a small area of *Eucalyptus alba* woodland comprise 15 % of footprint. The remainder is small patches of shrubland to open woodland areas of *Grevillea pteridifolia* and *Melaleuca nervosa* over open tussock grassland. There are no significant or sensitive vegetation types within the disturbance footprint, and no threatened species are expected to occur.

1.2 Scope and objective

This procedure provides details on the processes involved in the pre-strip and construction phase the project. The objective is to minimise the extent of vegetation clearance, promote the retention of landscape function by appropriate topsoil and weed management, and reduce the risk of erosion. It covers the removal of vegetation, removal and storage of topsoil required for rehabilitation, and has been prepared in accordance with the *NT Land Clearing Guidelines*.

1.3 Approvals, licences and permits

This procedure was prepared as a supporting document to the EIS. Subject to the project gaining approval to proceed, the proposed clearing activities will require the following additional permits:

- Permit under the *Bushfires Management Act*
- *Permit to Take or Interfere with Wildlife* under the *Territory Parks and Wildlife Conservation Act (TPWC Act)*.

1.4 Related documents

This procedure should be read in conjunction with the project EMP and Erosion and Sediment Control Plan (ESCP).

2 PRE-CLEARANCE TASKS

Prior to the commencement of clearing works, the following must be completed:

- Delineate the area to be disturbed either physically using pegs and/or flagging tape, or by electronic means such as the use of GPS guidance systems in clearing machinery.
- Survey area for weeds – any infestation must be controlled prior to work commencing. Weed management actions are detailed in the EMP.
- Clean and check all earth-moving equipment for weed seed and debris before entering site. Weed Declarations must be provided for any vehicle entering the site.
- Develop a clearing plan that can be communicated to all personnel and contractors. The clearing plan should be a map that shows areas of vegetation to be cleared and retained, no-go areas, locations for topsoil and vegetation stockpiles, areas where specific erosion control measures are required and locations for firebreaks.
- Establish bushfire first response capacity onsite.

3 VEGETATION CLEARING

The following actions will be implemented during vegetation clearing.

- Establish a pre-clearing meeting (for all contractors) to ensure that the clearing plan is understood by all relevant personnel, and confirm lines of communication between Core's environmental representative (ER) and the clearing contractors.
- Implement all safety procedures – including safe exclusion zones and attentive communication via signalling and radio communications.
- Clear vegetation using specified machinery (i.e. a bulldozer). Only qualified and trained personnel may operate the machinery.
- Monitor boundary to ensure that machinery remains within the approved clearance area at all times. If, at any time, a machinery operator loses sight of the pegged/flagged boundary, they must cease clearing immediately and verify that they are within the approved area.
- Monitor site to ensure machinery operators do not overwork the area, which may lead to the loss of topsoil or compaction and rutting.
- Stack cleared vegetation into windrows within designated stockpiling locations inside the boundary of clearance area. This windrowed debris will be burnt as soon as practicable (with a permit) to minimise channelling and concentration of run-off. First response capacity will be onsite. Burning will not take place on a day of total fire ban.
- Suppress dust using water carts as required.
- Install erosion and sediment control structures prior to the commencement of the first Wet season (expected to be 2019 - 2020 Wet season). Refer to the project ESCP for the location and types of controls.

4 TOPSOIL STRIPPING AND STORAGE

The primary objective for the management and use of topsoil is based on gaining the maximum benefit from the biological values of topsoil recovered from the clearance areas for the improvement of rehabilitation of the land. Topsoil stripped from the mine site will be stored until the mine enters the rehabilitation phase (26-30 months), but topsoil stripped from the pipeline footprint will be re-laid there as soon as practicable.

The following actions will be implemented during topsoil stripping and storage:

- Strip soil under dry conditions.
- Strip the top 50-100 mm of topsoil (i.e. the topsoil containing most of the biological activity and nutrients) and stockpile separately.
- Strip remaining topsoil to a maximum depth of 200 mm.
- Monitor soil during the stripping process for changes in the depth and nature, and – where necessary and practicable – avoid the inclusion of obviously poorer quality material (i.e. subsoil clay with mottles, rocky material, saline material).
- Stockpile the topsoil in the assigned areas (west of the Waste Rock Dump and Run of Mine pad), away from sensitive receptors such as drainage lines and watercourses.
- Ensure the height of the stockpile is restricted to >1.5 m, and the batter slope to 1.5° to promote free draining condition and prevent long-term saturation.
- Implement controls to maintain structural integrity of the stockpile – refer to the project ESCP for details.

5 WATER PIPELINE CONSTRUCTION

A water pipeline will be installed between the Observation Hill Dam and the mine site. The pipeline will be constructed of polyethylene plastic and will be buried to a sufficient depth to provide for protection from bushfire. The pipeline corridor is 6 km and traverses Vacant Crown Land. The corridor will be 10 m wide and will include an unsealed access track, which will be used for inspection and maintenance. Management of clearing activities in linear corridors needs to address the increased risks associated with weed spread over long distances and erosion and sediment controls required for areas of erosion risk.

The following actions will be implemented during clearing and construction of the water pipeline:

- Remove vegetation as per procedure above, and store in windrow to one side of the corridor.
- Strip topsoil as per procedure above, and store in windrow to one side of corridor.
- Dig a trench 500 mm deep, lay the pipe and then backfill the trench.
- Spread the windrows of topsoil and some vegetation back over the corridor to encourage growth of grass/groundcover.
- Dispose of any stockpiled vegetation excess to requirements by controlled burning as soon as practicable (and with a permit and first response capacity onsite).
- Control for erosion and sediment in accordance with the ESCP.

6 OTHER

Based on desktop assessments of habitat availability in the project area, it is not expected that any threatened species will occur, and subsequently, a fauna spotter-catcher is not required during clearing works. However, if any threatened fauna or flora species are observed, the location will be marked (ideally with a GPS) and the ER be notified. The ER will review existing management measures for the species to determine whether any additional actions or controls are required. Construction activities will not continue in this area until this process has been followed.

7 IMPLEMENTATION

Implementation of this procedure will be supported by the project EMP and/or contractor EMPs prepared for specific components of work. Details of implementation requirements are provided below.

7.1 Responsibilities

Unless otherwise specified, the provisions within this procedure are the responsibility of Core's ER. Responsibility for implementation may be delegated to contractors undertaking the work; however, Core will maintain overarching responsibility for compliance.

7.2 Training

Relevant staff and contractors will have training provided so that they are able to undertake the environmental management and monitoring activities specified in this procedure. Training requirements will be assessed and addressed in the relevant EMP.

7.3 Monitoring

The following monitoring activities will be undertaken to ensure compliance with this procedure:

- Weekly inspections (using a GPS) of the clearing area to ensure no clearing beyond the boundary.
- Weekly inspections of vegetation and topsoil stockpiles to ensure correct placement and management.
- Inspections of erosion and sediment controls in accordance with the requirements of the ESCP.
- Monthly surveys of all disturbance areas and stockpiles for weeds.
- Regular inspection and maintenance of the water pipeline corridor to:
 - Remove any trees/shrubs that may affect the integrity of the pipeline.
 - Monitor for and control weed infestations
 - Identify and address erosion issues.

7.4 Record-keeping

Records of site inspections and remedial actions will be maintained in accordance with the requirements prescribed in the project EMP as follows:

- Records will be maintained of all land clearing activities, including details (i.e. location and extent) of any over-clearing beyond the approved area.
- Any occurrence of weeds, the control measures and monitoring results, will be recorded in accordance with the procedures described in the EMP.
- Inspection and maintenance of erosion and sediment controls will be recorded in accordance with the project ESCP.



