



# LAND CLEARING PROCEDURE

## MRL-EN-PRO-0004

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**1. PURPOSE**

Land clearing for exploration and to establish mines and infrastructure is the most significant environmental impact MRL is likely to have. No land clearing should occur without first undertaking checks through the Site Disturbance Permit system (MRL-EN-PRO-0005).

This procedure outlines how land clearing should be undertaken once an approved Site Disturbance Permit has been received.

**2. SCOPE**

This procedure applies to all Mineral Resources Limited (MRL) companies, its subsidiary company activities and all joint venture operations where MRL has substantial participation and/or management control.

Specifically, this procedure applies to all managers or supervisors who are seeking to clear native vegetation for any purpose. It also applies to environmental personnel who are responsible for tracking and reporting on these activities.

**3. DEFINITIONS AND ABBREVIATIONS**

ED	Environment Department
Environmental weeds	Weeds that are sufficiently vigorous to reduce the diversity and/or abundance of native species or adversely affect the function of natural ecosystems.
SDP	Site Disturbance Permit
Seed bank	Seed occurring at or immediately below the soil surface.
Subsoil	Soil layer immediately below topsoil. May have organic matter and some of the other biological characteristics of topsoil. Recovery depth usually ranges from 0.2 to 1.0 m.
Topsoil	Topsoil: surface soil containing organic matter, fungi and microorganisms and seed bank. Important for re-establishing vegetation on rehabilitated areas. Recovery depth usually ranges from surface to 0.2-0.5 m.
Weed hygiene	Management measures used to prevent the introduction or spread of weed seeds.
Woody debris	Cleared vegetation excluding any large timber.

## 4. PROCEDURE(S)

### 4.1 Planning

- No clearing can be conducted without an approved Site Disturbance Permit (see MRL-EN-PRO-0005).
- The areas to be cleared must be clearly delineated on project drawings. In the field, the boundaries of the area to be cleared must be clearly demarcated using stakes and flagging, or other suitable method. How this is done will depend on:
  - The size, shape and complexity of the area to be cleared
  - The experience of the personnel undertaking the clearing
  - The presence or absence of sensitive locations, such as threatened flora, mature trees or heritage sites. These sites must be clearly demarcated with stakes and flagging tape.
- When marking out the site, survey pegs/flagging tape shall be positioned so as to be clearly visible from one marker to the next.
- The area must be clear of rubbish and debris prior to clearing. All sample bags, grid pegs and general refuse must be removed.
- Soil must be assessed by the ED and a predetermined stripping depth determined. The required depth of topsoil recovery will be advised in the SDP. When future rehabilitation requirements are considered, in some circumstances it may be necessary to strip subsoil separately.
- A strategy for woody debris and larger timber (if present) needs to be determined. Consult with ED.
- All operators must be familiar with this procedure and the requirements of the Site Disturbance Permit.
- A pre-start check must be conducted prior to commencement of any clearing. The pre-start check will ensure all operators are familiar with the requirements, including clearing boundaries, depth of soil stripping, strategy for stockpiling of topsoil, special areas to be protected and any other requirement identified in the Site Disturbance Permit. A representative from the ED must be present during the initial pre-start check.
- To prevent the spread of environmental weeds, all vehicles, plant and equipment must comply with the Weed Hygiene and Control procedure (MRL-EN-PRO-0007).
- If unsure about the management measures required, consult with ED.

## 4.2 Undertaking land clearing

- All vehicles, plant and equipment are restricted to within the clearing limits.
- Observers and spotters will be used when working near sensitive sites or when boundaries may not be readily visible.
- Trees shall be hand trimmed where only a portion of the tree shall be affected by works. For example, if the trunk of the tree is outside the clearing boundary
- No burning of vegetation at any time.
- Topsoil must be recovered to a depth determined by ED. Recovered topsoil must be stockpiled to maximum height of 2 m to preserve the soil physical/chemical properties and seed bank. Subsoil, if recovered, can be stockpiled to a height of 4 m. Stockpiles should not interfere with any surface drainage flows.
- The cover material on rocky slopes is also considered to be topsoil (see Plate 1). This material needs to be recovered for use in rehabilitation, especially on waste rock landforms. Where larger rocks occur, recovery will not be practical. Demarcation of areas for where soil recovery is possible, and where it is not, can be determined in consultation with ED.
- Woody debris should be stockpiled adjacent to topsoil. Larger objects such as tree trunks may need to be separately stockpiled to enable woody debris to be more readily handled.
- In certain circumstances, where vegetation is sparse or scrubby in nature it can be stripped and stockpiled together with topsoil and may be >2 m in height. Consultation with ED is required prior to undertaking this approach.
- Non-compliance with SDP conditions, for example if over-clearing occurs, requires an incident report (MRL-OHM-PRO-0007).



Plate 1: Stony slope (left) and rocky surface (right).

### 4.3 After clearing

- Within two weeks of the completion of clearing, the supervisor will have the boundaries of clearing and the location and dimensions of stockpiles surveyed, with the survey data to be passed to the ED.
- ED to ensure stockpiles are signposted to prevent inadvertent use for unapproved purposes (see Plate 2).
- ED to maintain records of the areas cleared and the resources available for future rehabilitation works (topsoil, subsoil, woody debris).



Plate 2: Examples of topsoil stockpiles

## 5. REFERENCES

MRL-EN-PRO-0015	Heritage Management Procedure
MRL-OHM-PRO-0007	Incident Reporting and Classification Procedure
MRL-EN-PRO-0007	Weed Hygiene and Control Procedure
MRL-EN-FRM-0003	Site Disturbance Permit application form
MRL-EN-PRO-0005	Site Disturbance Permit Procedure
MRL-EN-REG-0004	Site Disturbance Register