



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

<b>Purpose Permit number:</b>	CPS 3740/1
<b>Permit Holder:</b>	Karara Mining Limited
<b>Duration of Permit:</b>	24 July 2010 – 24 July 2015

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

### PART I – CLEARING AUTHORISED

**1. Purpose for which clearing may be done**

Clearing for the purpose of constructing a borrow pit.

**2. Land on which clearing is to be done**

Lot 8582 on Deposited Plan 203935 (ROTHSAY 6620)

**3. Area of Clearing**

The Permit Holder must not clear more than 12.7 hectares of native vegetation within the area shaded yellow on attached Plan 3740/1.

**4. Application**

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

**5. Compliance with Assessment Sequence and Management Procedures**

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

### PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

**6. Avoid, minimise etc clearing**

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

## 7. Weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

## 8. Wind erosion management

The Permit Holder shall not clear native vegetation unless construction of the borrow pit begins within 2 weeks of the clearing being undertaken.

## 9. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) within 6 months following clearing authorised under this permit, *revegetate* and *rehabilitate* the area(s) that are no longer required for the purpose for which they were cleared under this Permit by laying the vegetative material and topsoil retained under condition 9(a) on the cleared area(s)
- (c) within 18 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 9(b) of this Permit:
  - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
  - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 9(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.

## PART III - RECORD KEEPING AND REPORTING

### 10. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
  - (i) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
  - (ii) the date that the area was cleared; and
  - (iii) the size of the area cleared (in hectares).
- (b) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 9 of this Permit:
  - (i) the location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
  - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
  - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares); and
  - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*.

## 11. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 10 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 24 April 2015, the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(a) of this Permit.

## Definitions

The following meanings are given to terms used in this Permit:

**direct seeding** means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

**environmental specialist** means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

**fill** means material used to increase the ground level, or fill a hollow;

**mulch** means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

**local provenance** means native vegetation seeds and propagating material from natural sources within 10 kilometres of the area cleared.

**planting** means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

**regenerate/ed/ion** means *revegetation* that can be established from in situ seed banks contained either within the topsoil or seed-bearing *mulch*;

**rehabilitate/ed/ion** means actively managing an area containing native vegetation in order to improve the ecological function of that area;

**revegetate/ed/ion** means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

**weed/s** means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.



Kelly Faulkner  
MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

24 June 2010

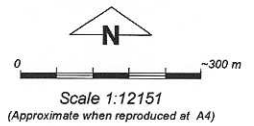


# Plan 3740/1



## LEGEND

- Clearing Instruments
- Perenjori 50cm Orthomosaic - Landgate 2005
- Areas Approved to Clear
- Road Centrelines



Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

*[Signature]* Date 24/6/10  
K Faulkner

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

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## 1. Application details

### 1.1. Permit application details

Permit application No.: 3740/1  
 Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Karara Mining Limited

### 1.3. Property details

Property: LOT 8582 ON PLAN 203935 ( ROTHSA Y 6620)  
 Local Government Area:  
 Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
12.7		Mechanical Removal	Constructing a borrow pit

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard Vegetation Association 352: Medium woodland; York gum; 374: Shrublands; bowgada scrub with scattered York gum; (Shepherd, 2007)	The vegetation condition is considered to be 'very good' with minimal disturbance (access tracks). 30 vascular plant taxa were observed during a survey of the project area (Karara, 2010).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The vegetation condition was assessed through aerial imagery and supporting information provided by the applicant (Karara, 2010).

## 3. Assessment of application against clearing principles

### Comments

The proposal to clear up to 12.7 hectares for the purpose of constructing a borrow pit is unlikely to have any significant environmental impacts. There are no declared rare flora or threatened ecological communities in the vicinity of the project. The vegetation to be cleared is well represented in the local area (10km radius) with approximately 50% vegetation remaining. The project area does not include vegetation that is growing in, or associated with, a watercourse or wetland.

The area does not appear to be suitable habitat for the Shield Backed Trap Door Spider, Western Spiny Tailed Skink and Mallefowl, however Mallefowl mounds have been located nearby. It is recommended that the applicant's Mallefowl Management Plan is applied to all aspects of the project including the management of traffic around borrow pits (DEC, 2010) to avoid fatalities.

The project area is adjacent to a DEC Managed Timber Reserve. Although weeds were not identified in the flora survey undertaken of the area (Karara, 2010), as it was conducted in March after a dry summer, annuals (including weeds) may not have been present or easily identifiable (DEC, 2010). Therefore, given its proximity to the Timber Reserve it is recommended that vehicles leaving and entering the borrow pit site are cleaned down to avoid the spread or introduction of weeds to the application area.

The soil types within the project area consist of red and yellow earths, earthy loams and gravel (Northcote et al. 1960-68). Given the proposal is for extraction of borrow material there is a probability of wind erosion. The applicant has advised that erosion control measures will be implemented during and after construction (Karara, 2010). Additionally the project area will be stabilised and rehabilitated according to the applicant's Borrow Pits and Environment Procedure for land rehabilitation (Karara, 2010).

**Methodology** References:  
 DEC (2010)  
 Karara (2010)  
 Northcote et al. (1960-68)

GIS Layers:

- CALM Managed Lands & Waters - CALM 01/06/05
- Clearing Regulations - Environmentally Sensitive Areas - 30 May 2005
- Hydrography, linear DOW 13/7/06
- Pre-European vegetation - DA 01/01
- SAC Biodatasets 270510

**Planning instrument, Native Title, Previous EPA decision or other matter.**

**Comments**

The Karara Mining project was approved by the Environmental Protection Authority in September 2009. This clearing permit application is related to that approval.

The land is zoned Freehold, rural land - extractive industry.

DEC has previously approved an offset proposal for the Greater Karara Iron Ore Project (CEOD5799).

Planning approval for the borrow pit has been obtained from the Shire of Perenjori (DEC Ref: A312107).

The project is located within the Rights in Water Irrigation Act 1914 Gascoyne Groundwater area. A groundwater licence from the Department of Water has been received (GWL169773(2)).

There is one registered Aboriginal Site of Significance within the application area. It is the proponent's responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Aboriginal Sites of Significance are damaged throughout the clearing process.

**Methodology**

**4. References**

Karara (2010). Karara Mining Ltd Native Vegetation Clearing Permit Application. Weelhamby East Borrow Pit May 2010, Anshan Iron and Steel Group Corporation and Gindalbie Metals Ltd.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Shepherd, D.P. (2007) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

**5. Glossary**

Term	Meaning
CALM	Department of Conservation and Land Management (now DEC)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment (now DEC)
DoW	Department of Water
DMP	Department of Mines and Petroleum (ex DoIR)
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)