



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 5046/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Robe River Mining Co Pty Ltd

### 1.3. Property details

Property: Miscellaneous Licence 47/47  
Local Government Area: Shire of Ashburton  
Colloquial name: 114.8KP Level Crossing

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1		Mechanical Removal	Railway construction or maintenance

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 28 June 2012

## 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
<p>Beard vegetation associations have been mapped for the whole of Western Australia and are useful to look at vegetation in a regional context. One Beard vegetation association has been mapped within the application area:</p> <p><b>Beard vegetation association 175:</b> Short bunch grassland - savanna/grass plain (Pilbara) (Government of Western Australia, 2011; GIS Database).</p> <p>Biota Environmental Sciences (2008) surveyed the application area and surrounding areas from 14 to 17 October 2008, and described three vegetation communities within the application area:</p> <p><b>AxTe - <i>Acacia xiphophylla</i></b> tall shrubland over <i>Triodia epactia</i> very open hummock grassland;</p> <p><b>ChAtuTeCE - <i>Corymbia hamersleyana</i></b> low open woodland over <i>Acacia tumida</i> var. <i>pilbarensis</i> tall shrubland over <i>Triodia epactia</i> very open hummock grassland and <i>Cenchrus</i> species tussock grassland in moderate and minor flowlines; and</p> <p>Disturbed.</p>	<p>Robe River Mining Co Pty Ltd is proposing to clear up to 1 hectare of native vegetation for the purpose of railway maintenance. This is required to install or replace signage and to improve line of sight for approaching vehicles.</p> <p>The vegetation will be cleared using an excavator or chainsaw for cutting back vegetation.</p>	<p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994);</p> <p>To:</p> <p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).</p>	<p>The application area is located in the Chichester subregion of Western Australia and is situated approximately 80 kilometres south of the Roebourne town site (GIS Database).</p> <p>The vegetation condition was derived from a vegetation survey conducted by Biota Environmental Sciences (2008).</p>

## 3. Assessment of application against clearing principles

### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

**Comments** **Proposal is not likely to be at variance to this Principle**  
The application area occurs within the Chichester (PIL1) Interim Biogeographic Regionalisation of Australia (IBRA) subregion (GIS Database). This subregion is comprised of undulating Archaean granite and basalt plains include significant areas of basaltic ranges. Plains support a shrub steppe characterised by *Acacia*

*inaequilatera* over *Triodia wiseana* (formerly *Triodia pungens*) hummock grasslands, while *Eucalyptus leucophloia* tree steppes occur on ranges (CALM, 2002).

A flora and vegetation survey of the application area was undertaken by Biota Environmental Sciences (2008) from 14 to 17 October 2008. No vegetation units within the application area were considered to be of high conservation significance and habitat diversity was relatively low within the application area despite being within Chichester-Millstream National Park (Biota Environmental Sciences, 2008; GIS Database). The condition of the vegetation types ranged from a 'degraded' condition to a 'good' condition (Keighery, 1994). The flora taxa recorded are considered characteristic Pilbara flora species, and are well represented outside the study area. The application area would therefore not be considered to hold a high level of biological diversity (Rio Tinto Iron Ore, 2012). No Threatened Flora, Priority Flora or Threatened Ecological Communities recorded during the botanical survey or have previously been recorded within the application area (Biota Environmental Sciences, 2008; GIS Database). The application area lies within the buffer of a Priority 3 Priority Ecological Community (PEC) 'Plant assemblages of the Wona Land System', however Biota Environmental Sciences (2008) did not identify any vegetation types within the application area associated with the PEC.

There were three weed species recorded within the application area; Buffel Grass (*Cenchrus ciliaris*), Birdwood Grass (*C. setiger*) and Mimosa Bush (*Vachellia farnesiana*) (Biota Environmental Sciences, 2008). Care must be taken to ensure that the proposed clearing activities do not spread or introduce weed species to non-infested areas. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

There was one faunal habitat type was identified within the application area and is considered to be of low ecological significance (Biota Environmental Sciences, 2009; GIS Database). This habitat type is considered to be well represented within the local and regional area (GIS Database). The clearing of 1 hectares of native vegetation is unlikely to have a significant impact in a regional and local context.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Biota Environmental Sciences (2008)  
CALM (2002)  
GIS Database:  
- Cooya Pooya 1.4m Orthomosaic - Landgate 1998  
- IBRA WA (Regions - Subregions)  
- Pre-European vegetation  
- Threatened Ecological Sites Buffered

**(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.**

**Comments Proposal is not likely to be at variance to this Principle**

No targeted fauna surveys have been conducted over the application area. The fauna habitat classification was developed on the basis of the dominant landform and vegetation types, and one faunal habitat was identified within the application area; Stony hills and slopes vegetated with *Corymbia hamersleyana* over mixed *Acacia* species scattered shrubs over hummock grassland of *Triodia wiseana* (Biota Environmental Sciences, 2008).

The application area is degraded and unlikely to provide habitat or a food source specific for any conservation significant fauna (Biota Environmental Sciences, 2008; Keighery, 1994). Aerial imagery identified nearby vegetation in the local area that is in significantly healthier condition in which fauna species are more likely to inhabit (GIS Database). Fauna habitats within the application area are limited due to the lack of vegetative cover and landforms, and the existing level of disturbance. No fauna of conservation significance were recorded during opportunistic sightings during the flora and vegetation survey (Biota Environmental Sciences, 2008). The ecological values of the potential fauna habitats are therefore considered to be low (Biota Environmental Sciences, 2008).

The proposed clearing of 1 hectare of native vegetation is not likely to impact critical feeding or breeding habitat for any conservation significant fauna species as the application area does not contain significant faunal habitats.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Biota Environmental Sciences (2008)  
Keighery (1994)  
GIS Database:  
- Dampier & Extension 50cm Orthomosaic - Landgate 2008

**(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.**

**Comments Proposal is not likely to be at variance to this Principle**

According to available databases, there are no records of Threatened Flora species within the application area (GIS Database). A search of the Department of Environment and Conservation's Threatened and Priority Flora

databases identified no Threatened Flora species as occurring within a 20 kilometre radius of the application area (DEC, 2012).

Biota Environmental Sciences (2008) conducted a vegetation and flora survey of the application area from 14 to 17 October 2008 during which No Threatened Flora species were recorded within the survey area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Biota Environmental Sciences (2008)  
DEC (2012)  
GIS Database:  
- Threatened and Priority Flora

**(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.**

**Comments** **Proposal is not likely to be at variance to this Principle**

A search of the available databases shows that there are no Threatened Ecological Communities situated within 50 kilometres of the application area (GIS Database).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** GIS Database  
- Threatened Ecological Sites Buffered

**(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.**

**Comments** **Proposal is not at variance to this Principle**

The application area falls within the Pilbara IBRA bioregion (GIS Database). The vegetation within the application area is recorded as Beard vegetation association 175: Short bunch grassland - savanna/grass plain (Pilbara) (Government of Western Australia, 2011; GIS Database).

According to the Government of Western Australia (2011), Beard vegetation association 117 retains approximately 99% of its pre-European extent. Therefore, the area proposed to be cleared is not a significant remnant of native vegetation in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Pilbara	17,804,427	17,729,352	~99.58	Least Concern	6.32
Beard vegetation associations - State					
175	526,203	523,800	~99.54	Least Concern	4.22
Beard vegetation associations - Bioregion					
175	507,033	506,626	~99.92	Least Concern	4.38

\* Government of Western Australia (2011)

\*\* Department of Natural Resources and Environment (2002)

Based on the above, the proposed clearing is not at variance to this Principle.

**Methodology** Department of Natural Resources and Environment (2002)  
Government of Western Australia (2011)  
GIS Database:  
- IBRA WA (regions - subregions)  
- Pre-European Vegetation

**(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**

**Comments** **Proposal is not likely to be at variance to this Principle**

According to available databases, there are no permanent watercourses or wetlands within the application area (GIS Database). There is one non-perennial watercourse running through the northern section of the application

area. Biota Environmental Sciences (2008) did not identify any riparian vegetation within the application area growing in association with the non-perennial watercourse.

Based on the above, the proposed clearing is not at variance to this Principle.

**Methodology** GIS Database:  
- Geodata, Lakes  
- Hydrography, Linear

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments Proposal is not likely to be at variance to this Principle**

According to available databases, the application area is comprised of the Robe land system.

The Robe land system consists of Low limonite mesas and buttes supporting soft spinifex (and occasionally hard spinifex) grasslands (Van Vreeswyk et al., 2004). The system is not generally susceptible to vegetation degradation or erosion (Van Vreeswyk et al., 2004).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Van Vreeswyk et al. (2004)  
GIS Database  
- Rangeland Land System Mapping

**(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.**

**Comments Proposal is not likely to be at variance to this Principle**

According to available databases, the application area occurs in Rio Tinto Iron Ore railway corridor within the Millstream-Chichester National Park (GIS Database). The whole application area is within the existing transport corridor that passes through the park (GIS Database). Robe River Mining Co Pty Ltd proposes to clear up to approximately 1 hectare within the Millstream-Chichester National Park. Whilst this proposed clearing would only impact on a very small portion of the National Park, the activities are likely to result in an area of permanent disturbance. Given the 'degraded' to 'good' condition of the application area and the small scale of the proposal (Biota Environmental Sciences, 2008), the proposed clearing within the National Park will not pose a significant impact to the environmental values of the Millstream-Chichester National Park.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** Biota Environmental Sciences (2008)  
GIS Database:  
- DEC Tenure

**(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.**

**Comments Proposal is not likely to be at variance to this Principle**

The application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). The application area is located within the proclaimed Pilbara groundwater area under the *Rights in Water and Irrigation Act 1914* (GIS Database). Any groundwater extraction and/or taking or diversion of surface water for the purposes other than domestic and/or stock watering is subject to licence by the Department of Water.

The application areas lies within a low rainfall zone and any surface water within the application area is likely to only remain for short periods following significant rainfall events (BoM, 2012). There are no permanent waterbodies located within the application area (GIS Database). Given there is a low average rainfall (312.3 millimetres) and there are no permanent watercourses within the application area, the proposed clearing is not likely to cause sedimentation or deteriorate the quality of surface water in the nearby areas (BoM, 2012; GIS Database).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** BoM (2012)  
GIS Database:  
- Geodata, Lakes  
- Hydrography, Linear  
- Public Drinking Water Source Areas

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

**Comments Proposal is not likely to be at variance to this Principle**

The application area experiences a semi-desert tropical climate with an annual average rainfall of approximately 312.3 millimetres per year (CALM, 2002; BoM, 2012). Based on an average annual evaporation rate of 3,200 - 3,600 millimetres (BoM, 2012), any surface water resulting from rainfall events is likely to be relatively short lived.

Given the size of the area to be cleared (1 hectare) compared to the size of the Fortescue River catchment area (1,860,700 hectares) (GIS Database) it is not likely that the proposed clearing will lead to an appreciable increase in run off, and subsequently cause or exacerbate the incidence or intensity of flooding.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

**Methodology** BoM (2012)  
CALM (2002)  
GIS Database:  
- Hydrographic Catchments - Catchments  
- Hydrography, Linear

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

**Comments**

There is one Native Title claim over the area under application (WC99/14). This claim was determined by the Federal Court on 2 May 2005. The mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There is one registered Aboriginal Site of Significance within the application area (Site ID: 18784) (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal sites of significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment and Conservation and the Department of Water, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The clearing permit application was advertised on 14 May 2012 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

**Methodology** GIS Database:  
- Aboriginal Sites of Significance  
- Native Title Claims - Determined by the Federal Court

#### 4. References

- Biota Environmental Sciences (2008) Rio Tinto Rail Duplication Emu to Rosella Phase 3: Native Vegetation Clearing Permit Report. Prepared for Rio Tinto Iron Ore, December 2008.
- BoM (2012) Climate Statistics for Australian Locations. A Search for Climate Statistics for Roebourne, Australian Government Bureau of Meteorology, viewed 21 June 2012, <[http://reg.bom.gov.au/climate/averages/tables/cw\\_004035.shtml](http://reg.bom.gov.au/climate/averages/tables/cw_004035.shtml)>.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Pilbara 1 (PIL1 ? Chichester subregion) Department of Conservation and Land Management, Western Australia.
- DEC (2012) NatureMap - Mapping Western Australia Biodiversity, Department of Environment and Conservation, viewed 21 June 2012, <<http://naturemap.dec.wa.gov.au>>.
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- Government of Western Australia (2011) 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Van Vreeswyk, A.M.E., Payne, A.L., Hennig, P., and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia, Department of Agriculture, Western Australia.

#### 5. Glossary

**Acronyms:**

**BoM** Bureau of Meteorology, Australian Government  
**CALM** Department of Conservation and Land Management (now DEC), Western Australia

DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

### Definitions:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P2** **Priority Two - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P3** **Priority Three - Poorly Known taxa:** taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4** **Priority Four – Rare taxa:** taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R** **Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable):** taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X** **Declared Rare Flora - Presumed Extinct taxa:** taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1** **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2** **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3** **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4** **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2** **Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known

from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

- P3** **Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4** **Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- P5** **Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

**Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999*)**

- EX** **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W)** **Extinct in the wild:** A native species which:  
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or  
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR** **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN** **Endangered:** A native species which:  
(a) is not critically endangered; and  
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU** **Vulnerable:** A native species which:  
(a) is not critically endangered or endangered; and  
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD** **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

