



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 5090/2  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Hamersley Iron Pty Ltd

### 1.3. Property details

Property: Iron Ore (Hamersley Range) Agreement Act 1963, Mineral Lease 246SA (AML 70/246); Iron Ore (Hamersley Range) Agreement Act 1963, General Purpose Leases 4SA (AG70/4), 14SA (AG 70/14)  
Local Government Area: Shire of Ashburton  
Colloquial name: Paraburdoo Mine Project

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
595		Mechanical Removal	Mineral Production and Mineral Exploration

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 3 July 2014

## 2. Site Information

### 2.1. Existing environment and information

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

##### Vegetation Description

Beard vegetation associations have been mapped for the whole of Western Australia. Four Beard vegetation associations have been mapped within the application area:

82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*;  
163: Shrublands; *Eremophila* and *Cassia* dwarf scrub;  
181: Shrublands; mulga and snakewood scrub; and  
567: Hummock grasslands, shrub steppe; mulga and kanji over soft spinifex and *Triodia basedowii* (GIS Database).

Botanists from Ecologia conducted a flora and vegetation survey over the original application area for clearing permit CPS 5090/1 in July and August 2011. Previous vegetation mapping by Biota over parts of the application area were incorporated into the results (Ecologia, 2012). Twenty-two vegetation communities were described for the application area (Ecologia, 2012).

##### Vegetation of Hills and Ridges

**AanAprAteTe:** *Acacia aptaneura*, *A. pruinocarpa* tall open shrubland to low woodland over *A. tetragonophylla* scattered shrubs over *Triodia epactia* hummock grassland.

**AprGbERsppTe:** *Acacia pruinocarpa*, *Grevillea berryana* tall open shrubland over *Eremophila fraseri* subsp. *fraseri*, *E. canaliculata*, *E. cuneifolia* scattered low shrubs over *Triodia epactia* hummock grassland.

**DpERCrTe:** *Dodonaea pachyneura*, *Eremophila cryptothrix* tall shrubland over *Triodia epactia* hummock grassland.

**AtAsyERcTe:** *Acacia tetragonophylla*, *A. synchronica* scattered tall shrubs over *Eremophila cuneifolia* scattered shrubs over *Triodia epactia* hummock grassland.

**AtERfTw:** *Acacia tetragonophylla* scattered tall shrubs over *Eremophila fraseri* subsp. *fraseri* scattered shrubs over *Triodia wiseana* hummock grassland.

**AtETw:** *Acacia tetragonophylla* tall open shrubland over *Triodia wiseana* hummock grassland.

**AanSoERsppARc:** *Acacia aneura* tall open scrub over *Senna oligophylla*, *Eremophila* spp. open heath over *Aristida contorta* open bunch grassland.

**AtEttSglSsTe:** *Acacia tetragonophylla* open shrubland over *Enchylaena tomentosa* var. *tomentosa*, *Senna glutinosa* subsp. *luerssenii*, *Senna stricta* over *Triodia epactia* hummock grassland.

#### Vegetation of Stony Plains

**AxAteERcSspp:** *Acacia xiphophylla* tall open shrubland over *A. tetragonophylla* open shrubland over *Eremophila cuneifolia*, *Senna* spp. scattered low shrubs.

**AanAteSspp:** *Acacia aneura*, *A. tetragonophylla* tall open shrubland over *Senna* spp. scattered low shrubs.

**AanAteTe:** *Acacia aneura*, *A. tetragonophylla* tall shrubland over *Triodia epactia* open hummock grassland.

**AcAjSsppCc:** *Acacia citrinoviridis* tall open scrub over *Aerva javanica* and mixed *Senna* spp. open shrubland over *Cenchrus ciliaris* open tussock grassland.

**AaAsAtEspPpSa:** *Acacia aptaneura*, *A. synchronicia*, *A. tetragonophylla* tall open shrubland over mixed *Eremophila* spp. and *Ptilotus obovatus* over *Sporobolus australasicus*.

**ApAtAxEcSsTe:** *Acacia aptaneura*, *A. tetragonophylla*, *A. xiphophylla* tall open shrubland over *Eremophila cuneifolia* and *Senna stricta* over *Triodia epactia* hummock grasslands.

**AtSaoTsTp:** *Acacia tetragonophylla* low open shrubland over *Senna artemisioides* subsp. *oligophylla* over *Triodia schinzii* and *Trachymene pilbarensis*.

#### Vegetation of Drainage Lines

**EcEvAamMgCYPv:** *Eucalyptus camaldulensis*, *E. victrix* open forest over *Acacia amplexa*, *Melaleuca glomerata* tall shrubland over *Cyperus vaginatus* open sedgeland to sedgeland.

**EvAcMgCE:** *Eucalyptus victrix* woodland to scattered trees over *Acacia coriacea* subsp. *pendens*, *Melaleuca glomerata* tall shrubland over *Cenchrus* spp. open tussock grassland.

**EvTER:** *Eucalyptus victrix* scattered trees over *Tephrosia rosea* var. *glabrior* scattered low shrubs.

**AciAanCE:** *Acacia citrinoviridis*, *A. aneura* tall shrubland to low open forest over *Cenchrus* species open tussock grassland to tussock grassland.

**AanTxTe:** *Acacia aneura*, *A. xiphophylla* tall open scrub over mixed open shrubland over *Triodia epactia* open hummock grassland.

**CfAciDpERcrTe:** *Corymbia ferritcola* low open woodland over *Acacia citrinoviridis*, *Dodonaea pachyneura*, *Eremophila cryptothrix* tall shrubland over *Triodia epactia* open hummock grassland.

**AxAsAtSaCc:** *Acacia xiphophylla*, *Acacia synchronicia*, *A. tetragonophylla* tall open shrubland over *Sporobolus australasicus* and *Cenchrus ciliaris* tussock grasslands.

An additional area was applied for in amendment CPS 5090/2 and this area was surveyed by botanists from Biota in September 2011 as part of a larger survey for the Western Range project. The following vegetation types were mapped within the additional area (Biota, 2012):

#### Vegetation of Stony Plains

**AanAxAteERcCAAspp:** *Acacia aneura*, *A. xiphophylla* tall open shrubland over *A. tetragonophylla* open shrubland over *Eremophila cuneifolia*, *Cassia* spp. scattered low shrubs.

#### Vegetation of Drainage Lines and Floodplains

**AciAanCEspp:** *Acacia citrinoviridis*, *A. aneura* tall shrubland over *Cenchrus* spp. open tussock grassland to tussock grassland.

**AanAxTa:** *Acacia aneura*, *A. xiphophylla* tall open scrub over *Triodia angusta* open hummock grassland.

**AciAanAwTe:** *Acacia citrinoviridis*, *A. aneura* low open woodland to low woodland over *A. wanyu* tall open shrubland over *Triodia epactia* very open hummock grassland.

#### Disturbed

**Disturbed:** Area cleared of vegetation.

#### Clearing Description

Paraburdoo Mine Project.  
Hamersley Iron Pty Ltd proposes to clear up to 595 hectares of native vegetation, within a total boundary of approximately 5,695 hectares, for the purposes of mineral production and mineral exploration. The clearing is to enable on-going operational mining activities at the Paraburdoo mine site.

The application area represents the boundary of the Paraburdoo mine site, located approximately 4 kilometres south-west of Paraburdoo townsite.

#### Vegetation Condition

Pristine: No obvious signs of disturbance (Keighery, 1994);  
To:  
Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

#### Comment

The vegetation condition was assessed by botanists from Ecologia. The vegetation conditions were described using a scale based on Trudgen (1988) and have been converted to the corresponding conditions from the Keighery (1994) scale.

Vegetation will be cleared by dozers. Topsoil and vegetative material will be stockpiled for use in rehabilitation.

Clearing permit CPS 5090/1 was granted by the Department of Mines and Petroleum on 1 November 2012 and was valid from 24 November 2012 to 31 July 2027. The clearing permit authorised the clearing of up to 595 hectares of native vegetation. An application for an amendment to clearing permit CPS 5090/1 was submitted by Hamersley Iron Pty Ltd on 9 April 2014 to increase the permit boundary and amend the definition of local provenance in the clearing permit. The amount of clearing authorised will remain the same.

### 3. Assessment of application against clearing principles

#### Comments

Hamersley Iron Pty Ltd has applied to change the definition of local provenance in the clearing permit and increase the clearing permit boundary by approximately 40 hectares.

The definition of 'local provenance' on clearing permit CPS 5090/1 was "local provenance means native vegetation seeds and propagating material from natural sources within 100 kilometres of the area cleared". Since the permit was granted in 2012, there have been discussions between the Department of Environment Regulation, Department of Mines and Petroleum and Department of Parks and Wildlife to amend this definition based on current scientific findings with consideration to availability of seed resources. The standard definition of local provenance in the Pilbara region now incorporates a larger distance of 200 kilometres from the area cleared but within the same IBRA subregion. The amended clearing permit has the updated definition.

The increase in the clearing permit boundary is requested in order to rehabilitate an old airstrip. The rehabilitation activities include area clean up, deep ripping and seeding. There is no increase in the amount of clearing.

A large scale flora and vegetation survey was undertaken over the Western Ridge project area by botanists from Biota in September 2011 and it included the additional amendment area. The majority of the additional area was mapped as 'disturbed' due to the old airstrip (Biota, 2012). The other mapped vegetation types were not considered to be of elevated conservation significance (Biota, 2012). No Threatened Flora, Priority Flora, Threatened Ecological Communities or Priority Ecological Communities were recorded within the additional area. Therefore, the proposed clearing is not likely to be at variance to Principles (a), (c) and (d).

The broad fauna habitats identified during the Biota 2011 survey are not restricted to the study area and are commonly found throughout both the Hamersley and Ashburton subregions (Biota, 2012). Given the majority of the additional area is mapped as disturbed, it is unlikely to provide good quality fauna habitat. The rehabilitation of the airstrip is likely to improve the fauna habitat value of the area. Therefore, the proposed clearing is not likely to be at variance to Principle (b).

The additional area contains several minor non-perennial watercourses and three vegetation types mapped within the area are associated with drainage lines and floodplains (AciAanCEspp, AanAxTa and AciAanAwTe) (Biota, 2012; GIS Database). Therefore, the proposed clearing is at variance to Principle (f). However, minor ephemeral drainage lines are widespread in the Pilbara and Gascoyne regions.

Current environmental information has been reviewed and the assessment of clearing principles (e), (g), (h), (i) and (j) is consistent with the assessment in Clearing Permit Decision Report CPS 5090/1 (GIS Database).

#### Methodology

Biota (2012)  
GIS Database:  
- DEC Tenure  
- Hydrography, Linear  
- IBRA WA (Regions – Subregions)  
- Pre-European Vegetation  
- Public Drinking Water Source Areas (PDWSAs)  
- Rangeland Land System Mapping  
- Threatened and Priority Flora  
- Threatened Ecological Sites Buffered  
- Threatened Fauna

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

#### Comments

There are two Native Title Claims (WC10/16 and WC10/11) over the area under application (GIS Database). These claims have been registered with the National Native Title Tribunal on behalf of the claimant groups. However, 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 are multiple registered Aboriginal Sites of Significance in the vicinity of the application area (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 Regulation, Department of Parks and Wildlife 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 amendment application was advertised on 28 April 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

**Methodology** GIS Database:  
- Aboriginal Sites of Significance  
- Native Title Claims – Registered with the NNTT

## 4. References

- Biota (2012) Western Range Additional Area: Vegetation and Flora Report. Draft Report Prepared by Biota Environmental Sciences for Rio Tinto, March 2012.
- Ecologia (2012) Rio Tinto Paraburdoo Mine Area Botanical and Vertebrate Fauna Survey. Report Prepared by Ecologia Environment, May 2012.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Trudgen, M.E. (1988) A Report on the Flora and Vegetation of the Port Kennedy Area. Unpublished Report Prepared for Bowman Bishaw and Associates, West Perth.

## 5. Glossary

### Acronyms:

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

**Principles for clearing native vegetation:**

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (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.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare 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.
- (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.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (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.
- (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.
- (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.