

# **Clearing Permit Decision Report**

1. Application details				
1.1. Permit application details				
Permit application No.:	5315/3			
Permit type:	Purpose Permit			
1.2. Proponent details				
Proponent's name:	Hamersley Iron Pty Ltd			
1.3. Property details				
Property:	Iron Ore (Mount Bruce) Agreement Act 1972; Mineral Lease 252SA (AML70/252)			
Local Government Area:	Shire of Ashburton			
Colloquial name:	Koodaideri Drilling Project			
1.4. Application				
Clearing Area (ha)No. T80	rees Method of Clearing For the purpose of: Mechanical Removal Mineral exploration and associated activities			
1.5. Decision on application				
Decision on Permit Application:	Grant			
Decision Date:	30 October 2014			
2. Site Information				
2.1. Existing environment and information				

#### 2.1.1 Description of the native vegetation under applies

2.1.1. Description of the native vegetation under application

Vegetation Description The following vegetation units were mapped in the project area during a flora and vegetation survey undertaken by Rio Tinto botanists in 2011:

Vegetation of foothills, slopes and hilltops:

- A1: Low open woodland to tall open shrubland of Acacia macraneura and Acacia pruinocarpa over open shrubland to scattered shrubs of Eremophila latrobei subsp. filiformis and Eremophila platycalyx over open hummock grassland of Triodia wiseana and Triodia epactia;
- A2: Scattered trees of Acacia macraneura, Corymbia ferriticola and Acacia pruinocarpa over tall open woodland of Acacia rhodophloia and Acacia pruinocarpa over scattered low shrubs of Eremophila tietkensii and Eremophila latrobei subsp. filiformis over open hummock grassland of Triodia wiseana and Triodia epactia;
- C1: Low open woodland to scattered low trees of Corymbia hamersleyana over scattered shrubs of Grevillea wickhamii over low open shrubland of Acacia spondylophylla and Acacia hilliana over open hummock grassland of Triodia basedowii;
- C2: Low open woodland to scattered low trees of *Corymbia hamersleyana* over scattered shrubs of *Grevillea wickhamii* and *Acacia inaequilatera* over low open shrubland of *Acacia spondylophylla* and *Acacia hilliana* over open hummock grassland of *Triodia wiseana*;
- C3: Low open woodland to scattered low trees of Corymbia hamersleyana over scattered shrubs of Grevillea wickhamii and Petalostylis labicheoides over low open shrubland of Acacia spondylophylla and over open hummock grassland of Triodia epactia;
- C4: Scattered low trees of Corymbia ferriticola over tall scattered shrubs of Hakea chordophylla and Grevillea wickhamii over open mallee to scattered mallee of Eucalyptus gamophylla over low open shrubland of Acacia spondylophylla, Acacia hilliana and Gompholobium sp. Pilbara (N.F. Norris 908) over open hummock grassland of Triodia basedowii;
- C5: Open mallee to scattered mallee of Corymbia deserticola with tall scattered shrubs of Hakea chordophylla, Grevillea wickhamii and Acacia trudgeniana over scattered shrubs of Acacia hilliana, Gompholobium sp. Pilbara (N.F. Norris 908), Acacia spondylophylla and Goodenia stobbsiana over scattered herbs of Ptilotus calostachyus over open hummock grassland of Triodia basedowii;
- E1: Scattered low trees of *Eucalyptus leucophloia subsp. leucophloia* over scattered shrubs of *Grevillea* wickhamii and Hakea chordophylla over low open shrubland of Acacia spondylophylla and Acacia hilliana over open hummock grassland of *Triodia basedowii*;
- E2: Low open woodland to scattered low trees of *Eucalyptus leucophloia subsp. leucophloia* over scattered shrubs of *Grevillea wickhamii* over low open shrubland of *Acacia spondylophylla* and *Acacia hilliana* over open hummock grassland of *Triodia wiseana*;
- E3: Scattered low trees of Eucalyptus leucophloia subsp. leucophloia over scattered shrubs of Acacia

inaequilatera, Acacia pyrifolia and Grevillea wickhamii over low open shrubland of Acacia spondylophylla and Acacia hilliana over open hummock grassland of Triodia epactia;

- E4: Low open woodland to scattered low trees of *Eucalyptus leucophloia subsp. leucophloia* and *Corymbia hamersleyana* over *Grevillea wickhamii* over low open shrubland of *Acacia spondylophylla* and *Acacia hilliana* over open hummock grassland of *Triodia basedowii* and *Triodia wiseana*;
- E5: Scattered low trees of Eucalyptus leucophloia subsp. leucophloia over tall scattered shrubs of Hakea chordophylla and Grevillea wickhamii over open mallee to scattered mallee of Eucalyptus gamophylla over low open shrubland of Acacia spondylophylla and Acacia hilliana over open hummock grassland of Triodia basedowii and Triodia wiseana;
- E6: Scattered low trees of *Eucalyptus leucophloia subsp. leucophloia* over open shrubland of *Acacia bivenosa* over open hummock grassland of *Triodia wiseana* or *Triodia basedowii*;
- E7: Scattered low trees of *Eucalyptus leucophloia subsp. leucophloia* over scattered shrubs of *Grevillea* wickhamii over open shrubland of *Acacia maitlandii* over low open shrubland of *Acacia spondylophylla* over open hummock grassland of *Triodia wiseana;*
- E8: Low open woodland to scattered low trees of Eucalyptus leucophloia subsp. leucophloia, Corymbia ferriticola and Acacia pruinocarpa over Grevillea wickhamii over Eremophila platycalyx or Eremophila jucunda subsp. jucunda over open hummock grassland of Triodia wiseana and Triodia epactia; and
- E9: Low woodland of *Eucalyptus leucophloia subsp. leucophloia* over scattered mallee of *Eucalyptus gamophylla* over scattered low shrubs of *Acacia hilliana* over open hummock grassland of *Triodia basedowii* and *Triodia wiseana*.

Vegetation of flats, low undulating slopes and floodplains:

- A3: Low woodland of Acacia macraneura over open shrubland to scattered shrubs of Eremophila forrestii, Eremophila latrobei subsp. filiformis and Senna artemisioides subsp. oligophylla over open hummock grassland of Triodia wiseana and Triodia epactia;
- A4: Tall open shrubland of *Acacia inaequilatera* or *Acacia trudgeniana* and *Grevillea wickhamii* over scattered low shrubs of *Acacia spondylophylla* and *Goodenia stobbsiana* with scattered herbs of *Ptilotus calostachyus* over open hummock grassland of *Triodia basedowii* or *Triodia wiseana*;
- C6: Low open woodland to scattered low trees of Corymbia hamersleyana over tall open shrubland of Acacia inaequilatera, Acacia pyrifolia, Grevillea wickhamii, Jasminum didymum over scattered low shrubs of Senna artemisioides subsp. oligophylla, Indigofera monophylla and Ptilotus obovatus var. obovatus open hummock grassland of Triodia epactia and Triodia spp; and
- E10: Open mallee of *Eucalyptus gamophylla* with open shrubland of *Acacia inaequilatera* over open hummock grassland of *Triodia epactia* and *Triodia* spp.

#### Vegetation of flowlines

- F1: Scattered low trees of Corymbia hamersleyana over tall shrubland to shrubland of Acacia tumida var. pilbarensis, Petalostylis labicheoides, Grevillea wickhamii and Acacia pyrifolia over low open shrubland of Indigofera monophylla over open hummock grassland of Triodia epactia;
- F2: Scattered low trees of *Eucalyptus leucophloia subsp. leucophloia* over tall open shrubland of *Grevillea wickhamii, Acacia tumida* var. *pilbarensis* and *Petalostylis labicheoides* over low open shrubland of *Acacia spondylophylla* over open hummock grassland *Triodia wiseana*;
- F3: Low open woodland to scattered low trees of Eucalyptus leucophloia subsp. leucophloia and Corymbia hamersleyana over shrubland of Petalostylis labicheoides, Gossypium robinsonii, Acacia tumida var. pilbarensis and Grevillea wickhamii over low open shrubland of Acacia spondylophylla over open hummock grassland of Triodia spp;
- F4: Tall open scrub to tall shrubland of Acacia tumida var. pilbarensis and Grevillea wickhamii over open hummock grassland of Triodia epactia;
- F5: Scattered low trees of Eucalyptus leucophloia subsp. leucophloia over tall open shrubland of Acacia monticola, Petalostylis labicheoides and Grevillea wickhamii over low open shrubland of Acacia spondylophylla over open hummock grassland of Triodia wiseana or Triodia epactia;
- F6: Low open woodland of Corymbia ferriticola and Eucalyptus leucophloia subsp. leucophloia over tall shrubland to shrubland of Gossypium robinsonii, Grevillea wickhamii, Acacia monticola and Petalostylis labicheoides over open hummock grassland of Triodia epactia and Triodia wiseana;
- F7: Mallee of Eucalyptus gamophylla with tall shrubland to shrubland of Acacia tumida var. pilbarensis, Gossypium robinsonii and Grevillea wickhamii over open hummock grassland of Triodia epactia;
- F8: Tall shrubland to shrubland of *Petalostylis labicheoides* and *Grevillea wickhamii* over low open shrubland of *Acacia spondylophylla* or *Acacia arida* or *Gompholobium* sp. Pilbara (N.F. Norris 908) over open hummock grassland of *Triodia epactia* or *Triodia basedowii*;
- F9: Low open woodland of *Eucalyptus leucophloia subsp. leucophloia* or *Corymbia hamersleyana* over tall open shrubland of *Acacia bivenosa* over open hummock grassland of *Triodia wiseana* and *Triodia basedowii*; and
- F10: Scattered low trees of Corymbia hamersleyana over tall open shrubland to scattered tall shrubs of Acacia pyrifolia and Acacia tumida var. pilbarensis over low open shrubland of Tephrosia rosea over very open tussock grassland of Cymbopogon ambiguus.

A biological survey of the amendment area (amendment application CPS 5315/2) conducted by Eco Logical (2014) from 28 May to 5 June 2014 identified four broad vegetation types;

	<ul> <li>Corymbia hamersleyana and Corymbia deserticola subsp. deserticola open woodland with occasional Eucalyptus leucophloia subsp. leucophloia scattered trees over Grevillea wickhamii subsp. aprica, Hakea lorea subsp. lorea and Acacia inaequilatera or Acacia trudgeniana scattered tall shrubs over Acacia adoxa, Acacia hilliana and Tephrosia arenicola low open shrubland over Triodia sp. Shovelanna Hill (S. van Leeuwen 3835) and Triodia wiseana hummock grassland on rocky hill slopes and low undulating hills;</li> </ul>	
	<ul> <li>Corymbia hamersleyana open woodland to scattered trees over Acacia tumida var. pilbarensis, Grevillea wickhamii subsp. aprica, Gossypium robinsonii and Petalostylis labicheoides high shrubland over Triodia epactia/pungens hummock grassland and Themeda triandra and Cymbopogon ambiguus tussock grassland on rocky hills and along ridges of gullies;</li> </ul>	
	<ul> <li>Eucalyptus leucophloia subsp. leucophloia, Eucalyptus gamophylla and Corymbia hamersleyana open woodland to scattered trees over Grevillea wickhamii subsp. aprica and Hakea lorea subsp. lorea and Acacia inaequilatera or Acacia trudgeniana high open shrubland over Acacia hilliana, Tephrosia arenicola and Indigofera monophylla low open shrubland over Triodia wiseana and Triodia sp. Shovelanna Hill (S. van Leeuwen 3835) hummock grassland and Eriachne mucronata very open tussock grassland of minor drainage lines; and</li> </ul>	
	<ul> <li>Corymbia ferriticola and Eucalyptus leucophloia subsp leucophloia open woodland to scattered trees over Ficus brachypoda, Acacia pruinocarpa and Gossypium robinsonii scattered trees over Petalostylis labicheoides high open shrubland over Triodia epactia/pungens and Triodia wiseana hummock grassland along gorges and gullies with steep rock faces along drainage lines and cliff walls.</li> </ul>	
Clearing Description	Koodaideri Drilling Project. Hamersley Iron Pty Ltd proposes to clear up to 80 hectares of native vegetation within a total boundary of approximately 579 hectares for the purposes of mineral exploration and associated activities. The project is situated approximately 111 kilometres east northeast of Tom Price in the Shire of Ashburton (GIS Database).	
Vegetation Condition	Pristine: No obvious signs of disturbance (Keighery, 1994);	
	То:	
	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).	
Comment	Vegetation condition within the project area was recorded using the condition scale created by Trudgen (1988). These condition ratings have been converted to those implemented in the condition scale created by Keighery (1994).	
	An application to amend CPS 5315/3 was received by the Department of Mines and Petroleum on 17 September 2014 for the purposes of increasing the area permitted to clear from 40 hectares to 80 hectares, and increase the permit boundary from 331.5 hectares to 579 hectares. The amendment also includes extending the duration of the permit from 31 July 2022 to 31 July 2024.	

#### 3. Assessment of application against clearing principles

#### Comments

Hamersley Iron Pty Ltd has applied to increase the area permitted to clear by 40 hectares, increase the permit boundary by approximately 247.5 hectares, and extend the duration of the permit by 2 years.

A biological survey of the amendment area conducted by Eco Logical (2014) identified an additional four broad vegetation types occurring within the extended permit boundary. None of these vegetation types are considered to be of higher diversity than those assessed within clearing permit decision report CPS 5315/2, and the vegetation types are not considered to be a remnant locally or regionally. No vegetation communities recorded are considered to be a Threatened or Priority Ecological Community (Eco Logical, 2014; GIS Database). The vegetation condition within the amendment area ranges from 'very good' to 'excellent' (Keighery, 1994). Some vehicle tracks were present within the amendment area and minimal cattle grazing was observed (Eco Logical, 2014).

A total of 131 flora taxa from 67 genera belonging to 32 families were recorded from the amendment area (Eco Logical, 2014). This is within the expected range for an area of this size and locality, therefore the amendment area is not considered to be an area of exceptionally high biodiversity on a local or regional scale (Eco Logical, 2014). No Threatened Flora species were identified during the biological survey; however 60 individuals across 15 populations of the Priority Flora species *Rhynchosia bungarensis* (Priority 4) were identified within the extended permit boundary. This Priority Flora species has previously been recorded from 223 locations, with a total of 3,669 individuals, between 50 metres and 38 kilometres south-east of the amendment area (Eco Logical, 2014). This species is well known across its range and throughout the locality and given the number of locations known at a local and regional scale (Eco Logical, 2014; Western Australian Herbarium, 2014), the proposed clearing of the known populations of *Rhynchosia bungarensis* within the amended permit boundary is unlikely to impact its conservation significance.

Therefore, the proposed clearing is not likely to be at variance to Principles (a), (c) and (d), and is not at variance to Principle (e).

Fauna habitats present within the amended permit boundary are consistent with those assessed in clearing permit decision report CPS 5315/2 and are well represented both locally and regionally throughout the Pilbara. The amendment area includes additional steep rocky canyons, cliffs and gorges faunal habitat which

represents suitable habitat for a range of conservation significant fauna, including Pilbara Leaf-nosed Bat (Rhinonicteris aurantius) (Schedule 1, Vulnerable), Ghost Bat (Macroderma gigas) (Priority 4) and Northern Quoll (Dasyurus hallucatus) (Schedule 1, Endangered) (Eco Logical, 2014). However, given the low representation of the faunal habitat within the extended permit boundary, the scale of the proposed clearing and its low impact, non-contiguous nature, it is considered unlikely to significantly impact the conservation value of this faunal habitat type. Therefore, the proposed clearing is not likely to be at variance to Principle (b). Current environmental information has been reviewed and the assessment of clearing principles (f), (g), (h), (i) and (j) is consistent with the assessment in clearing permit decision report CPS 5315/2. Methodology Eco Logical (2014) Keighery (1994) Western Australian Herbarium (2014) GIS Database: - DEC Tenure - Evaporation Isopleths - Groundwater Salinity - Hydrography, linear - IBRA WA (Regions - Sub Regions) - Pre-European Vegetation - Public Drinking Water Source Areas - Rangeland Land System Mapping - Rainfall, Mean Annual - Threatened and Priority Flora - Threatened Ecological Sites Buffered Planning instrument, Native Title, Previous EPA decision or other matter. Comments There is one Native Title claim over the area under application (GIS Database). The claim WC2011/006 has been registered with the National Native Title Tribunal on behalf of the claimant group. 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 is one registered Aboriginal Site of Significance within 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 amendment application was advertised on 29 September 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the application. Methodology GIS Database: - Aboriginal Sites of Significance - Native Title Claims - Registered with the NNTT 4. References

Eco Logical Australia Pty Ltd (Eco Logical) (2014) Koodaideri Biological Assessment. Prepared for Rio Tinto, August 2014. Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Western Australian Herbarium (2014) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <a href="http://florabase.dpaw.wa.gov.au/">http://florabase.dpaw.wa.gov.au/</a>> Accessed 20 October 2014.

## 5. Glossary

## Acronyms:

ВоМ	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DPaW and DER)
DER	Department of Environment Regulation, Western Australia

DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DotE	Department of the Environment, Australian Government
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
EPA	Environmental Protection Authority, Western Australia
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
PEC	Priority Ecological Community, Western Australia
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:**

IA

{DPaW (2013) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

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 Threatened species:

 Specially protected under the Wildlife Conservation Act 1950, listed under Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna or the Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

 Threatened Fauna and Flora are further recognised by DPaW according to their level of threat using IUCN

Threatened Fauna and Flora are further recognised by DPaW according to their level of threat using IUCN Red List criteria. For example Carnaby's Cockatoo *Calyptorynchus latirostris* is specially protected under the *Wildlife Conservation Act 1950* as a threatened species with a ranking of Endangered.

#### <u>Rankings:</u>

CR: Critically Endangered - considered to be facing an extremely high risk of extinction in the wild. EN: Endangered - considered to be facing a very high risk of extinction in the wild. VU: Vulnerable - considered to be facing a high risk of extinction in the wild.

#### X Presumed Extinct species:

Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora (which may also be referred to as Declared Rare Flora).

## Migratory birds protected under an international agreement:

Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice.

Birds that are subject to an agreement between governments of Australia and Japan, China and The Republic of Korea relating to the protection of migratory birds and birds in danger of extinction.

## S Other specially protected fauna:

Specially protected under the *Wildlife Conservation Act 1950,* listed under Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice.

## P1 Priority One - Poorly-known species:

Species that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, rail reserves and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.

## P2 Priority Two - Poorly-known species:

Species that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.

### P3 Priority Three - Poorly-known species:

Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.

#### P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:

- (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.
- (b) Near Threatened. Species that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.
- (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

P5

#### Priority Five - Conservation Dependent species:

Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five 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.