

# **Clearing Permit Decision Report**

# 1. Application details

1.1. Permit application de	etails			
Permit application No.:	5315/2			
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 Le	ase 252SA (AML70/252)		
Local Government Area:	Shire of Ashburton			
Colloquial name:	Koodaideri Drilling Project			
1.4. Application				
Clearing Area (ha)No. T40	rees Method of Clearing For the purpose of: Mechanical Removal Mineral exploration	and associated activities.		
1.5. Decision on application				
<b>Decision on Permit Application:</b>	Grant			
Decision Date:	23 January 2014			
2. Site Information				

# 2.1. Existing environment and information

**Vegetation Description** 

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

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;
- 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;
- 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*;

Clearing Description	Koodaideri Drilling Project. Hamersley Iron Pty Ltd proposes to clear up to 40 hectares of native vegetation within a total boundary of approximately 331.5 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 (Pristine or nearly so, no obvious signs of disturbance):
	to
	Excellent (Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species).
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).

# 3. Assessment of application against clearing principles

#### Comments

Hamersley Iron Pty Ltd has applied to increase the clearing permit boundary of CPS 5315/1 from approximately 306 hectares to approximately 331.5 hectares to facilitate the re-establishment and repair of access tracks outside the existing clearing permit boundary. No change to the amount of clearing authorised under CPS 5315/1 has been requested in this application. Within the proposed amended permit area up to 40 hectares of vegetation will be cleared to facilitate mineral exploration activities.

The project area was subject to a flora and vegetation survey undertaken by Rio Tinto botanists in August 2011 (Rio Tinto, 2012). Thirty vegetation communities were recorded in the project area with the majority of the recorded vegetation in Pristine to Excellent condition (Rio Tinto, 2012). None of the vegetation communities recorded in the project area were representative of Threatened Ecological Communities or Priority Ecological Communities (Rio Tinto, 2012).

A total of 204 flora taxa from 94 genera belonging to 40 families were recorded from the project area (Rio Tinto, 2012). This is within the expected range for an area of this size and locality, therefore the project area is not considered to be an area of exceptionally high biodiversity on a local or regional scale (Rio Tinto, 2012). The families with the highest representation in the project area included Fabaceae, Poaceae, Malvaceae, Amaranthaceae and Goodeniaceae (Rio Tinto, 2012). At the time the flora and vegetation survey of the project area was undertaken, only two threatened flora species were known for the Pilbara region; Thryptomene wittweri and Lepidium catapycnon. Neither of these species was recorded in the project area during the flora and vegetation survey (Rio Tinto, 2012). Since this survey was undertaken an additional species of threatened flora has been listed for the Pilbara region; Aluta guadrata. At the time the flora and vegetation survey was undertaken this species was a Priority 1 listed species (Department of Environment and Conservation, 2010). No Priority listed flora species were recorded during the flora and vegetation survey, although the proponent advises that the project area may provide suitable habitat for the 12 Priority listed flora species; Isotropis parviflora (Priority 2), Spartothamnella puberula (Priority 2), Stylidium weeliwolli (Priority 2), Acacia effusa (Priority 3), Dampiera metallorum (Priority 3), Nicotiana umbratica (Prioirty 3), Rostellularia adscendens var. latifolia (Priority 3), Sida sp. Barlee Range (S. van Leeuwen 1642) (Priority 3), Themeda sp. Hamersley Station (M.E. Trudgen 11431) (Priority 3), Eremophila magnifica subsp. magnifica (Priority 4); Goodenia nuda (Priority 4) and Rhynchosia bungarensis (Priority 4).

Two weed species were recorded from the project area; Buffel Grass (*Cenchrus ciliaris*) and Whorled Pigeon Grass (*Setaria verticillata*) (Rio Tinto, 2012). Neither of these species is listed as a declared pest under Section 22 of the *Biosecurity and Agriculture Management Act 2007* (Department of Agriculture and Food, 2014). To minimise the impact of clearing on the areas biodiversity, a weed management condition has been placed on the permit.

No fauna surveys were undertaken within the project area (Rio Tinto, 2012), however opportunistic fauna sightings and fauna habitat observations were recorded during the flora and vegetation survey (Rio Tinto, 2012). These included opportunistic records of Western Pebble-mound Mouse (*Psuedomys chapmani*) (Priority 4) mounds within the project area (Rio Tinto, 2012). In August 2010 Biota Environmental Sciences undertook a Level 2 fauna survey immediately south east of the project area (Rio Tinto, 2012).

During the Level 2 fauna survey undertaken by Biota Environmental Sciences, the following fauna habitat types were identified; plain, hill slope, colluvial drainage line, minor drainage line, gully floor, rocky hill slope and rocky gorge (Rio Tinto, 2012). The Rio Tinto staff undertaking the flora and vegetation survey observed these habitat types within the project area (Rio Tinto, 2012). While these fauna habitat types could support conservation significant fauna species, they are common throughout the Pilbara region and are not confined to the project area (Rio Tinto, 2012). Seven conservation significant fauna species were recorded during the fauna survey undertaken by Biota Environmental Sciences; Northern Quoll (*Dasyurus hallucatus*) (Schedule 1, Endangered), Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia*) (Schedule 1, Vulnerable), Pilbara Olive Python (*Liasis olivaceus barroni*) (Schedule 1, Vulnerable), Australian Bustard (*Ardeotis australis*) (Priority 4), Star

Finch (*Neochmia ruficauda*) (Priority 4), Ghost Bat (*Macroderma gigas*) (Priority 4) and the Western Pebble-mound Mouse.

The results from the Level 2 fauna survey undertaken by Biota Environmental Sciences, along with a desktop assessment undertaken by the proponent, were used to determine whether conservation significant fauna species were likely to utilise the project area or nearby areas (Rio Tinto, 2012). The proponent determined that 18 species of conservation significant fauna could potentially occur within the project area (Rio Tinto, 2012).

The proposed amendment to the clearing permit consists of a small increase to the permit boundary with no proposed change to the clearing area approved under the permit. Therefore, the proposed activities are not expected to result in impacts to flora communities or conservation significant fauna and flora species which are in addition to or different in nature from those assessed during the assessment of CPS 5315/1.

The proposed additional permit area does not contain any permanent watercourses or wetlands (GIS Database). Consequently, no additional impacts to surface water flows or quality beyond those assessed for CPS 5315/1 are expected to result from the clearing activities.

The incorporation of additional area into the permit boundary is not expected to cause environmental impacts in addition to or different from those assessed for CPS 5315/1. Based on current environmental information the assessment of the clearing principles is consistent with the assessment in the clearing permit decision report for CPS 5315/1.

Methodology Department of Agriculture and Food (2007) Department of Environment and Conservation (2010) Rio Tinto (2012).

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

Comments

There is one Native Title Claim (WC2011/006) over the area under application (GIS Database). This claim has been registered with the Native Title Tribunal on behalf of the claimant group. However, the 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 (formerly 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 amendment application was advertised on 2 December 2013 by DMP inviting submissions from the public. No submissions have been received regarding this application.

#### Methodology GIS Database:

- Aboriginal Sites of Significance

- Native Title Claims - Registered with the NNTT.

#### 4. References

Department of Agriculture and Food (2014) Declared Pest (s22). Prepared by the Department of Agriculture and Food. Department of Environment and Conservation (2010) Department of Environment and Conservation - DRF and Priority Flora List current at 25 March 2010. Prepared by the Department of Environment and Conservation.

Rio Tinto (2012) Exploration drilling at Koodaideri: including supporting documentation for a Native Vegetation Clearing Permit. Report prepared by Rio Tinto.

#### 5. Glossary

#### Acronyms:

ВоМ	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 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 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 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 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	<b>Priority Three: Taxa with several, poorly known populations, some on conservation lands</b> : 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	<b>Priority Four: Taxa in need of monitoring</b> : 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	<b>Priority Five: Taxa in need of monitoring</b> : 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)	<ul> <li>Extinct in the wild: A native species which:</li> <li>(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or</li> <li>(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.</li> </ul>
CR	<b>Critically Endangered:</b> 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	<ul> <li>Endangered: A native species which:</li> <li>(a) is not critically endangered; and</li> <li>(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.</li> </ul>
VU	Mala and Las A matter and size which
	<ul> <li>(a) is not critically endangered or endangered; and</li> <li>(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.</li> </ul>

**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.