



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4615/2
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 Lease 252SA*
Local Government Area: Shire of East Pilbara
Colloquial name: Koodaideri Mine Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
244		Mechanical Removal	Clearing for the purposes of geotechnical investigations, mineral exploration and construction camp.

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 4 April 2013

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. Two Beard vegetation associations have been mapped within the application area (GIS Database):

82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*; and

111: Hummock grasslands, shrub steppe; *Eucalyptus gamophylla* over hard spinifex.

A flora and vegetation survey of the application area and the immediate surrounds was conducted by Biota Environmental Sciences (Biota) (2012) in July 2010, with the second phase of sampling being completed in March and May 2011. This survey identified 21 vegetation communities within the application area (Biota, 2012):

Vegetation of Foothills, Slopes and Hillslopes

AanEITspsTHt - *Acacia aneura*, *Eucalyptus leucophloia* scattered low trees over *Triodia* sp. Shovelanna Hill open hummock grassland over *Themeda triandra* tussock grassland;

AarAspTspsTw - *Acacia arida* tall open shrubland over *Acacia spondylophylla* low shrubland over *Triodia* sp. Shovelanna Hill, *Triodia wiseana* hummock grassland;

AiGwTlaTp - *Acacia inaequilatera*, *Grevillea wickhamii* open shrubland over *Triodia lanigera*, *Triodia pungens* open hummock grassland;

AprGwAarAspTsps - *Acacia pruinocarpa*, *Grevillea wickhamii*, *Acacia arida* tall open scrub over *Acacia spondylophylla* scattered low shrubs over *Triodia* sp. Shovelanna Hill open hummock grasslands;

ChAiGwTsps/Te/Tw - *Corymbia hamersleyana* scattered low trees over *Acacia inaequilatera*, *Grevillea wickhamii* scattered tall shrubs over *Triodia* sp. Shovelanna Hill or *Triodia epactia* or *Triodia wiseana* hummock grassland;

EIAbTwTsps - *Eucalyptus leucophloia* scattered low trees over *Acacia bivenosa* open shrubland over *Triodia wiseana*, *Triodia* sp. Shovelanna Hill hummock grassland;

EIAhiAarTspsTe - *Eucalyptus leucophloia* scattered low trees over *Acacia hilliana*, *Acacia arida* low shrubland over *Triodia* sp. Shovelanna Hill, *Triodia epactia* open hummock grassland;

EIAspTsps - *Eucalyptus leucophloia* scattered low trees over *Acacia spondylophylla* low open shrubland over *Triodia* sp. Shovelanna Hill hummock grassland;

EIChAmTw - *Eucalyptus leucophloia*, *Corymbia hamersleyana* low open woodland over *Acacia maitlandii* low shrubland over *Triodia wiseana* hummock grassland;

EIchGwAprTsp

Eucalyptus leucophloia, *Corymbia hamersleyana* scattered low trees over *Grevillea wickhamii*, *Acacia pruinocarpa* scattered shrubs over *Triodia* sp. Shovelanna Hill hummock grassland;

EIEgEKTw - *Eucalyptus leucophloia* low woodland over *Eucalyptus gamophylla*, *Eucalyptus kingsmillii* scattered low mallees over *Triodia wiseana* open hummock grassland;

EIEgHcGwAspAarTspTw - *Eucalyptus leucophloia*, *Eucalyptus gamophylla* scattered low trees over *Hakea chordophylla*, *Grevillea wickhamii* tall open scrub over *Acacia spondylophylla*, *Acacia arida* shrubland over *Triodia* sp. Shovelanna Hill, *Triodia wiseana* open hummock grassland; and

EIGwAhiAspTwTsp - *Eucalyptus leucophloia* low woodland over *Grevillea wickhamii* scattered shrubs over *Acacia hilliana*, *Acacia spondylophylla* scattered low shrubs over *Triodia* sp. Shovelanna Hill open hummock grassland.

Vegetation of Creeks, Gullies and Gorges

AiGpTeCEc - *Acacia inaequilatera*, *Grevillea wickhamii* tall shrubland over *Triodia epactia* hummock grassland over *Cenchrus ciliaris* tussock grassland;

AprGwCEcTe - *Acacia pruinocarpa*, *Grevillea wickhamii* tall shrubland over *Cenchrus ciliaris* tussock grassland over *Triodia epactia* open hummock grassland;

AprApyATHCEc - *Acacia pruinocarpa* scattered trees over *Acacia pyrifolia*, *Atalaya hemiglauca* shrubland over *Cenchrus ciliaris* tussock grassland;

ApyGwATHGOrTErCEcTe - *Acacia pyrifolia*, *Grevillea wickhamii*, *Atalaya hemiglauca*, *Gossypium robinsonii* tall open scrub over *Tephrosia rosea* scattered low shrubs over *Cenchrus ciliaris* tussock grassland over *Triodia epactia* open hummock grassland;

AtuATHGwApyTErCEc - *Acacia tumida*, *Atalaya hemiglauca*, *Grevillea wickhamii*, *Acacia pyrifolia* tall open scrub over *Tephrosia rosea* low open shrubland over *Cenchrus ciliaris* tussock grassland; and

ChApyAtuTErCEc - *Corymbia hamersleyana* scattered low trees over *Acacia pyrifolia*, *Acacia tumida* tall closed shrubland over *Tephrosia rosea* low open shrubland over *Setaria* sp. closed tussock grassland.

Mosaic Units

Gully Mosaic - Deep gullies with different microclimates within the study area supported variable vegetation units at a scale too fine to map individually; and

Koodaideri spring - This mapping unit comprised a mosaic of riparian vegetation types associated with a narrow gorge.

Clearing Description

Hamersley Iron Pty Ltd is proposing to clear up to 244 hectares of native vegetation within a broader boundary of approximately 7,053 hectares for the purpose of exploration drilling, geotechnical investigation activities and camp construction.

Clearing will be conducted using a dozer with raised blade techniques where possible. Blade down techniques will be used in areas of steep or rough terrain and to provide a safe work environment.

Vegetation Condition

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994);

To

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non aggressive (Keighery, 1994).

Comment

The application area is located within the Pilbara region of Western Australia and is situated approximately 73 kilometres south east of Wittenoom.

Clearing Permit CPS 4615/1 was granted by the Department of Mines and Petroleum (DMP) on 8 December 2011 and authorised the clearing of up to 167 hectares of native vegetation within a boundary of approximately 6,941 hectares. On 3 December 2012 Hamersley Iron Pty Ltd applied to increase the amount of clearing approved to 244 hectares, and increase the boundary to 7,053 hectares to allow for additional exploration drilling, geotechnical investigation activities and camp construction.

3. Assessment of application against clearing principles

Comments The proposed amendment is not likely to have any significant environmental impacts above those already assessed under Clearing Permit CPS 4615/1. There are no additional vegetation communities to the 21 identified within the boundary of Clearing Permit CPS 4615/1 (Biota, 2012).

According to Biota (2012), there is one Threatened Flora species, *Lepidium catapycnon*, found in several locations within the study area (Biota, 2012). A flora management condition was implemented in Clearing Permit CPS 4615/1 to address this, and will be implemented in this application.

In a survey by Biota (2011), seven conservation significant fauna species were found within the study area (Biota, 2011). A fauna management condition was implemented in Clearing Permit CPS 4615/1 to minimise impacts on these species, and will be implemented in this application.

The assessment against the clearing principles has not changed and can be found in clearing permit decision report CPS 4615/1.

Methodology Biota (2011)
Biota (2012)

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

Comments

There are three native title claims (WC10/17, WC10/15 and WC98/62) over the application area (GIS Database). This claims have been registered with the National Native Title Tribunal on behalf of the claimant groups (GIS Database). However, the tenement 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 two registered sites of Aboriginal 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 sites of Aboriginal 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.

It is noted that the proposed clearing may impact on a protected matter under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent may be required to refer the project to the (Federal) Department of Sustainability, Environment, Water, Population and Communities (SEWPAC) for environmental impact assessment under the EPBC Act. The proponent is advised to contact the SEWPAC for further information regarding notification and referral responsibilities under the EPBC Act.

The clearing permit amendment application was advertised on 31 December 2012 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received regarding the cumulative impacts of clearing in the area. Impacts of cumulative clearing have been addressed in the assessment of the clearing principles.

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

4. References

Biota (2011) Terrestrial Fauna of Koodaideri Phase 1. Unpublished report prepared for Rio Tinto Iron Ore dated March 2011. Biota Environmental Sciences.

Biota (2012) A Vegetation and Flora Survey of the Koodaideri Study Area. Unpublished report prepared for Rio Tinto Iron Ore dated October 2012. Biota Environmental Sciences.

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

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.