Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2798/2
Permit type: Purpose

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 4SA (AML 70/4)
Local Government Area: Shire of Ashburton
Colloquial name: Mt Tom Price Iron Ore Mine

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
379		Mechanical	Mineral production and exploration activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 2 May 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 are located within the application area (Government of Western Australia, 2011; GIS Database):

567: Hummock grasslands, shrub steppe; mulga & kanji over soft spinifex & *T. basedowii*;
82: Hummock Grasslands, low tree steppe; snappygum over *Triodia wiseana.*

Vegetation and flora surveys were conducted over the original permit area and amended permit area by Pilbara Flora (2008) and ENV (2013) respectively. As a result of these flora surveys 16 vegetation types were identified within the application area.

From the Pilbara Flora (2008) survey:

ACACIA TYPE CREEKLINES:

Undulating Colluvial Hills Broad Creek > 5m wide - *Eucalyptus vitrix*, *Acacia citrinoviridis* and *Eucalyptus leucophloia ssp. leucophloia* low open forest over *Rulingia luteiflora* and *Petalostylis labicheoides* open scrub over *Triodia epactia* and *Cymbopogon ambiguus* hummock/tussock grassland.

Undulating Colluvial Hills Medium Creek 3-5m wide - *Acacia aneura var. aneura*, *A. citrinoviridis*, *A. pruinocarpa*, *Eucalyptus trivalva* and *Eucalyptus leucophloia ssp. leucophloia* low open forest over *Acacia hamersleyensis*, *A. maitlandii*, *Gossypium robinsonii*, *Petalostylis labicheoides*, *Dodonaea petiolaris*, *Ptilotus obovatus var. obovatus*, *Stylobasium spathulatum* open scrub and *Cenchrus ciliaris*, *Cymbopogon ambiguus*, *Themeda sp.* Mt Barricade, *Triodia epactia*, *Triodia wiseana* tussock/hummock grassland.

GORGES, GULLIES AND BREAKAWAYS:

Breakaway Steep Hillside Shrubland - *Eucalyptus leucophloia ssp. leucophloia* low open woodland over *Acacia hamersleyensis*, *Acacia matilandii* and *Acacia marramamba* open scrub over *Cryptandra monticola* and *Dodonaea petiolaris* open heath over *Eriachne mucronata*, *Triodia epactia* and *Triodia wiseana* tussock/hummock grassland.

Deep Incised Valley Shrubland - *Corymbia ferriticola ssp. ferriticola*, *Eucalyptus leucophloia ssp. leucophloia* and *Acacia pruinocarpa* low open forest over *Acacia hamersleyensis*, *Cymbopogon ambiguus*, *Grevillea berryana* and *Gossypium robinsonii* shrubland over *Themeda sp.* Mt Barricade and *Triodia epactia* tussock/hummock grassland.

MINOR FLOWLINES:

Meadow Buffel Grass - *Acacia citrinoviridis* and *Eucalyptus xerothermica* scattered low trees over *Acacia bivenosa* scattered shrubs over *Cenchrus ciliaris* closed tussock grassland.

Undulating Colluvial Hills Narrow Creek 2-3m wide - *Acacia citrinoviridis*, *A. aneura var. aneura* and *Eucalyptus leucophloia ssp. leucophloia* low woodland over *Abutilon macrum*, *Acacia bivenosa*, *A. synchronicia*, *Corchorus lasiocarpus ssp. lasiocarpus*, *Petalostylis labicheoides*, *Gossypium robinsonii*,

Hibiscus coatesii, *Stylobasium spathulatum*, *Sida clementii* open heath over *Enneapogon robustissimus* and *Themeda sp.* Mt Barricade tussock grassland and *Triodia epactia* and *Triodia pungens* hummock grassland.

RIDGES AND RANGES:

Hillside Mulga Grove - *Acacia aneura var. aneura*, *A. aneura var. intermedia* and *A. pruinocarpa* low closed forest over *Dodonaea petiolaris*, *Eremophila phyllopoda*, *Eremophila platycalyx* and *Senna glutinosa ssp. pruinosa* open heath over *Triodia epactia*, *Triodia melvillei* and *Triodia wiseana* open hummock grassland.

Hillside Mallee Woodland - *Eucalyptus leucophloia ssp. leucophloia* and *Acacia aneura var. conifer* open woodland over *Eucalyptus trivalva* low open forest over *Acacia hamerselyensis* and *Ptilotus obovatus var. obovatus* open shrubland over *Triodia epactia* and *Triodia wiseana* hummock grassland.

Steep Hillsides Open Woodland - *Eucalyptus leucophloia ssp. leucophloia* and *Acacia pruinocarpa* low woodland over *Acacia hamersleyensis* shrubland over *Triodia epactia*, *Triodia pungens*, *Triodia wiseana* hummock grassland.

Undulating Colluvial Hills Open Woodland - *Eucalyptus leucophloia ssp. leucophloia*, *A. pruinocarpa* and *A. citrinoviridis* low woodland over *Acacia maitlandii*, *Corchorus crozophorifolius*, *Corchorus lasiocarpus ssp. lasiocarpus*, *Hibiscus sturtii var. campylochlamys* and *Indigofera monophylla* shrubland over *Triodia epactia* and *Triodia wiseana* hummock grassland.

Upland Rocky Plain Open Shrubland - *Eucalyptus leucophloia* and *E. gamophylla* scattered low trees over *Acacia maitlandii* and *A. bivenosa* and *Senna glutinosa ssp. glutinosa* open shrubland over *Triodia wiseana* hummock grassland.

Upland Rocky Plain Shrubland - *Eucalyptus leucophloia ssp. leucophloia*, *Codonocarpus cotinifolius* and *Acacia pruinocarpa* low woodland over *Acacia marramamba*, *Gossypium robinsonii*, *Petalostylis labicheoides* and *Rulingia luteiflora* shrubland over *Triodia epactia* hummock grassland.

SPINIFEX WITH EUCALYPTS:

Stony Plain Open Woodland - *Corymbia hamersleyana* and *Eucalyptus leucophloia ssp. leucophloia* open woodland over *Capparis umbonata*, *Petalostylis labicheoides* and *Sida fibulifera* low open heath over *Triodia epactia*, *Triodia wiseana* and *Enneapogon caerulescens* hummock/tussock open grassland.

From the ENV (2013) survey:

H5 - *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia hamersleyensis* and *A. maitlandii* open shrubland over *Triodia brizoides* hummock grassland on skeletal red brown sandy loam on high rocky hill slopes.

G3 - *Corymbia hamersleyana* low open woodland over *Acacia hamersleyensis* high open shrubland over *Triodia brizoides* open hummock grassland on red-brown sandy loam in gullies and on steep slopes

L1 - *Acacia citrinoviridis*, *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia ferriticola* subsp. *erriticola* low open forest over *Dodonaea viscosa* and *A. maitlandii* shrubland over *Triodia epactia* hummock grassland on low hills.

Clearing Description

Hamersley Iron Pty Ltd (Hamersley) is intending to clear up to 379 hectares of native vegetation for a number of pits, pit cutbacks, waste dumps and exploration drilling at the Mt Tom Price Mine. Vegetation will be cleared by mechanical means.

Vegetation Condition

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

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

Comment

The Mt Tom Price Mine has been operating since 1966 and vegetation surrounding the mine has been subject to multiple disturbances since its inception. Vegetation condition was assessed by Pilbara Flora (2008) and ENV (2013).

Clearing Permit CPS 2798/1 was granted by the Department of Mines and Petroleum on 20 November 2008 and allowed for the clearing of 317.2 hectares of native vegetation. An application to amend this permit was received by the Department of Mines and Petroleum on 1 March 2013. The application requests an increase in the area authorised to be cleared and clearing permit area.

The amendment application expands the permit area to the east and west. The western section is referred to as S7, while the eastern section is referred to as SPOD.

3. Assessment of application against clearing principles

Comments

Hamersley has applied to increase the amount of clearing authorised and permit boundary from 317.2 hectares to 379 hectares. The additional 61.8 hectares of clearing is for exploration drilling.

A vegetation and flora survey covering the amended permit area was undertaken by ENV (2013). Vegetation types found in the amended application area were found to be consistent with those found in the original application area.

The flora and vegetation survey did not identify any threatened flora species or threatened or priority ecological communities (ENV, 2013). One priority flora species was found: *Eremophila magnifica* sp. *magnifica* (P4) (ENV, 2013). It was recorded in one location in the S7 area and in two locations in the SPOD area (ENV, 2013). This species has been recorded over 70 times by Pilbara Iron botanists between Newman, Karijini National Park and Tom Price (Pilbara Flora, 2008). Its preferred habitat is also well represented in the region (ENV, 2013). Given the species' broad distribution and available habitat it is therefore considered unlikely that the proposed clearing will impact on the conservation of this species.

A fauna assessment of the amended application area undertaken by ENV (2013) did not identify any additional impacts to conservation significant fauna species than those described in clearing permit decision report 2798/2. Fauna habitats found within the amended application areas are well represented in the Tom Price locality, and ENV (2013) note that any use of these habitats by conservation significant fauna species is likely to be temporary. It is also worth noting that approximately 70% of the amended application area is considered Completely Degraded (ENV, 2013) and would not provide significant habitat value.

No watercourses or wetlands were found in the amended application area (GIS Database).

Current environmental information has been reviewed and the assessment of the clearing principles is consistent of the assessment in clearing permit decision report 2798/1.

Methodology

ENV (2013)
Pilbara (Flora)
GIS Database:
- Hydrography, linear
- IBRA WA (Regions - Sub Regions)
- Pre-European Vegetation
- Public Drinking Water Source Areas PDWSAs
- Rangeland Land System Mapping
- Threatened and Priority Flora
- Threatened Ecological Sites

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

Comments

There is one Native Title Claim (WC97/89) over the area under application (GIS Database). This claim has been determined by the Federal Court of Australia. 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 numerous registered Aboriginal Sites 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 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 amendment was advertised on 18 March 2013 inviting submissions from the public. No submissions were received.

Methodology

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

4. References

ENV (2013) Tom Price Life of Mine Flora, Vegetation and Fauna Assessment, Unpublished Report prepared for Rio Tinto.

Government of Western Australia (2011) 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.

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

Pilbara Flora (2008) Flora and Vegetation Survey for the Development of Multiple Areas within the Tom Price Mine and Supporting Documentation for a Native Vegetation Clearing Permit Application. Unpublished report prepared for Hamersley Iron Pty Ltd by Pilbara Flora, 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.