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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2798/3
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Hamersley Iron Pty Ltd**

1.3. Property details

Property: *Iron Ore (Hamersley Range) Agreement Act 1964,* Mineral Lease 4SA (AML70/4)
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 Removal	Mineral Production and Exploration Activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 10 October 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 (GIS Database):

82: Hummock Grasslands, low tree steppe; snappygum over *Triodia wiseana;* and

567: Hummock grasslands, shrub steppe; mulga & kanji over soft spinifex & *Triodia basedowii*.

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 victrix*, *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; and

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; and

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; and

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; and

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; and

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; and

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; and

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; and

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; and

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; and

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.

From the ENV (2013) survey for the amended area in CPS 2798/3 which also includes vegetation types H5 and G3:

L6 – *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* open woodland over *Triodia epactia* and *T. wiseana* open hummock grassland on low hills; and

L8 – *Euclayptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia pruinocarpa, A. exilis* and *A. bivenosa* low scattered shrubs over *Triodia wiseana* very open hummock grassland on red-brown sandy loam on low hills; and

I1 – Completely degraded/ cleared areas including mining infrastructure and tracks.

Clearing Description

Mt Tom Price Iron Ore Mine. Hamersley Iron Pty Ltd (Hamersley Iron) proposes to clear up to 379 hectares of native vegetation within a total boundary of approximately 406.5 hectares, for the purpose a number of pits, pit cutbacks, waste dumps and exploration drilling at the Mt Tom Price Mine. The project is located approximately 11 kilometres south-west of Tom Price, in the Shire of Ashburton.

Vegetation Condition

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

To:

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

Comment

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

Vegetation clearing will be undertaken by mechanical means and the vegetation and topsoil will be stockpiled for use in rehabilitation.

Clearing permit CPS 2798/1 was amended by the Department of Mines and Petroleum on 2 May 2013 for the purpose of increasing the permit boundary and area approved to clear from 317.2 hectares to 379.6 hectares. On 5 August 2013, Hamersley Iron Pty Ltd applied to amend CPS 2798/2 for the purpose of increasing the permit boundary from 379.6 to 406.5 hectares.

3. Assessment of application against Clearing Principles

Comments

Hamersley Iron Pty Ltd has applied to increase the permit boundary from 379.6 hectares to 406.5 hectares.

A flora survey of the amendment area conducted by ENV (2013) identified four vegetation communities occurring within the extended permit boundary. None of these vegetation communities are considered to be of higher diversity than those assessed within clearing permit decision report CPS 2798/2 and the vegetation types are not considered to be a remnant locally or regionally. No vegetation communities recorded are considered to be Threatened or Priority Ecological Communities and no Threatened or Priority Flora were recorded within the additional area (ENV, 2013). 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).

The fauna habitats present within the application area are consistent with those described in clearing permit decision report CPS 2798/2. 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 2798/2 (GIS Database).

Methodology

ENV (2013)
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, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

There is one Native Title Claim (WC97/89) over the area under application. 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 several 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 Regulation (formerly 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 application was advertised on 19 August 2013 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 - Determined by the Federal Court

4. References

Hamersley Iron Pty Ltd (Hamersley Iron) (2013) Statement Addressing the 10 Clearing Principles – Tom Price S7W3. Unpublished Report, July 2013. Rio Tinto, Western Australia.

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

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

5. Hamersley Iron Pty Ltd by Pilbara Flora, Western Australia.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.