



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4915/4
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 1963, Mineral Lease 4SA (AML 70/4)
Local Government Area: Shire of Ashburton
Colloquial name: Western Turner Syncline Marra Mamba Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
136		Mechanical Removal	Mineral exploration, hydrogeological drilling, geotechnical investigations and associated activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 24 December 2015

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:

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

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

Seven flora and vegetation surveys have been undertaken over various parts of the application area (Hamersley Iron Pty Ltd (Hamersley), 2015). Hamersley has summarised these surveys and identified 17 vegetation communities occurring within the study area:

Vegetation of Stony Hills and Slopes

AanAprTbr - *Acacia aneura*, (*A. pruinocarpa*) low open forest over *Triodia brizoides* open hummock grassland;

EIAhAmTw - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia hamersleyensis*, (*A. maitlandii*) tall open shrubland over *Triodia wiseana* open hummock grassland;

EIAmTbr - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia maitlandii* tall shrubland over *Triodia brizoides* hummock grassland;

EIAprTw - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia pruinocarpa* tall open shrubland over *Triodia wiseana* hummock grassland;

EIAsppte - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over mixed *Acacia* spp. open shrubland over *Triodia epactia* hummock grassland;

EITbr - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Triodia brizoides* hummock grassland;

EIEgAsppTbr - *Eucalyptus leucophloia* subsp. *leucophloia*, *E. gamophylla* low open woodland over mixed *Acacia* open shrubland over *Triodia brizoides* open hummock grassland;

Vegetation of Stony Hills and Low Spurs

AanApr - *Acacia aneura*, (*A. pruinocarpa*) tall shrubland over mixed scattered hummock grasses;

AxAanTaTlo - *Acacia xiphophylla*, *A. aneura* tall shrubland over *Triodia angusta*, *T. longiceps* very open hummock grassland;

AxAanTw - *Acacia xiphophylla*, (*A. aneura*) tall shrubland over *Triodia wiseana* very open hummock grassland;

EIAbTaTlo - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia bivenosa* open shrubland over *Triodia angusta*, *T. longiceps* open hummock grassland;

EITe - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Triodia epactia* open hummock grassland;

EITwTa - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Triodia wiseana*, (*T. angusta*) open hummock grassland;

Vegetation of Floodplain and Broad Drainage

AanAciT spp - *Acacia aneura*, *A. citrinoviridis* tall open scrub over mixed *Triodia* open hummock grassland;

Vegetation of Creeks, Flowlines, Floodplains and Gullies

CfAanAciTbrTeERIm - *Corymbia ferricola* low open woodland over *Acacia aneura*, *A. citrinoviridis* tall shrubland over *Triodia brizoides*, *T. epactia* open hummock grassland with *Eriachne mucronata* very open tussock grassland;

EcEvAci - *Eucalyptus camaldulensis* subsp. *refulgens*, *E. victrix* woodland over *Acacia citrinoviridis* tall open scrub;

EIChAciApyAmoTe - *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana* low open woodland over *Acacia citrinoviridis*, *A. pyrifolia*, *A. monticola* tall open scrub over *Triodia epactia* hummock grassland.

Clearing Description	Western Turner Syncline Marra Mamba Project. Hamersley Iron Pty Ltd proposes to clear up to 136 hectares of native vegetation within a total boundary of approximately 1,981.36 hectares for the purpose of mineral exploration, hydrogeological drilling, geotechnical investigations and associated activities. The proposal is approximately 250 kilometres north-west of the town of Newman, in the Shire of Ashburton.
Vegetation Condition	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994). To Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).
Comment	The vegetation condition was determined through the various flora and vegetation surveys undertaken over the application area (Hamersley, 2015). Clearing Permit CPS 4915/1 was granted by the Department of Mines and Petroleum (DMP) on 24 May 2012 authorising the clearing of 84 hectares of native vegetation within a boundary of approximately 691 hectares. Clearing Permit CPS 4915/1 was amended on 26 April 2013 to increase the boundary by 0.1 hectares to bring the clearing permit boundary in line with the tenement boundary. CPS 4915/2 was then amended on 27 February 2014 to increase the area authorised to be cleared to 106 hectares and increase the boundary to 888.7 hectares. Hamersley has applied to amend CPS 4915/3 for the following purposes: <ul style="list-style-type: none">• increase the area authorised to be cleared from 106 hectares to 136 hectares;• increase the permit boundary from 888.7 hectares to approximately 1,981.36 hectares;• amend the purpose of the permit from 'mineral exploration' to 'mineral exploration, hydrogeological drilling, geotechnical investigations and associated activities';• remove condition 4 – restrictive clearing. The intent of the amendment is also to replace CPS 5089/2 with a larger CPS 4915/4. CPS 5089/2 was granted by DMP on 13 September 2012, and authorised the clearing of 30 hectares within a boundary of approximately 506 hectares. There are six separate areas that are proposed to be included in the proposed amended permit boundary that are not currently within the permit boundaries of CPS 4915/3 or CPS 5089/2. For the purposes of this assessment, these areas are referred to as proposed additional areas.

3. Assessment of application against clearing principles

Comments

Hamersley (2015) has undertaken a review of various flora and vegetation surveys that cover the application area. The study area for this review covers most of the application area, however some areas that were already assessed under CPS 4915/3 have been excluded (Hamersley, 2015).

The proposed amended application area, which includes the proposed additional areas and areas covered by CPS 4915/3 and CPS 5089/2 may result in additional impacts to drainage communities along gorges and gullies, which Biota (2013a) identified as being moderately significant. These areas are represented by vegetation unit CfAanAciTbrTeERIm and Habitat Type 13 (Hamersley, 2015) and support two Priority 3 flora species *Indigofera* sp. Bungaroo Creek (*S. van Leeuwen* 4301) and *Sida* sp. Barlee Range (*S. van Leeuwen* 1642). These areas are also considered suitable habitat for the conservation significant fauna species *Rhinonictis aurantia* (Orange Leaf-nosed Bat), *Liasis olivaceus barroni* (Pilbara Olive Python) and *Dasyurus hallucatus* (Northern Quoll) (Biota, 2012). Gorges, gullies and associated vegetation communities are therefore

likely to represent an important habitat for conservation significant flora and fauna species.

Clearing permit conditions exist on CPS 4915/3 and CPS 5089/2 that restrict the purpose of clearing within these areas to access tracks only. Hamersley (2015) advises that internal restriction zones have been established over this habitat type and will be maintained to minimise disturbance as far as practicable. As such, Hamersley has applied to remove this condition. Given the significance of these areas as suitable habitat for both Priority flora species and conservation significant fauna species, it is recommended that a restrictive clearing condition remain on the amended permit restricting clearing to the purpose of access track construction.

The proposed amendment will also potentially impact on a major drainage line (GIS Database). This major drainage line is represented by Habitat 6 (Biota, 2013b), which is described as Eucalypt woodland over *Acacia citrinoviridis* shrubland, and may contain sensitive microhabitats such as semi-permanent water and large trees/hollows. The applicant advises that activities will avoid these areas where possible, however access tracks may be required (Hamersley, 2015). Potential impacts to this habitat type may be minimised by including the mapped extent of Habitat 6 in the restrictive clearing condition.

No Threatened or Priority Ecological Communities, or Threatened flora species have been recorded in the application area (Hamersley, 2015).

Two other Priority flora species have been recorded in the proposed additional areas; *Dampiera anonyma* (P3) and *Hibiscus* sp. Mt Brockman (E. Thoma ET 1354) (P1) (Hamersley, 2015). Both species have been recorded at numerous locations across the Hamersley region (Hamersley, 2015) and are not likely to be significantly impacted by the proposed amendment.

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

Current information has been reviewed and the assessment of the remaining clearing principles is consistent with the assessment contained in decision report CPS 4915/3.

Methodology Biota (2012)
Biota (2013a)
Biota (2013b)
Hamersley (2015)
GIS Database:
- DPaW Tenure
- Hydrography, linear
- Pre-European Vegetation
- Soils – Statewide
- Range Lands Systems
- Threatened and Priority Flora
- Threatened Ecological Communities

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

Comments

There are two native title claims (WC1997/089 and WC2010/016) over the application area (Department of Aboriginal Affairs (DAA), 2015). 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 (ie. 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 no registered Aboriginal Sites of Significance occurring 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 Aboriginal sites of significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation, the Department of Water, and the Department of Parks and Wildlife, 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 21 September 2015 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

Methodology DAA (2015)
GIS Database:
- Aboriginal Sites of Significance

4. References

Biota (2012) West Turner Syncline NES Species Assessment, Unpublished report prepared for Rio Tinto.
 Biota (2013a) West Turner Syncline Stage 2 – Phase 1 Survey and Targeted Vegetation Survey. Unpublished report prepared for Rio Tinto.
 Biota (2013b) West Turner Syncline Vertebrate Fauna Integration Report. Unpublished report prepared for Rio Tinto.
 DAA (2015) Aboriginal Heritage Enquiry System. Department of Aboriginal Affairs, Government of Western Australia.
<http://maps.dia.wa.gov.au/AHIS2/default.aspx>.
 Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. Department of Parks and Wildlife, Perth.
 Hamersley (2015) Supporting documentation for clearing permit amendment application CPS 4915/4.
 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
DAA	Department of Aboriginal Affairs, Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DPaW and DER)
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DotE	Department of the Environment, Australian Government
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
EPA	Environmental Protection Authority, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DPaW (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T	<p>Threatened species: Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).</p> <p>Threatened fauna is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act.</p> <p>Threatened flora is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the Wildlife Conservation Act.</p> <p>The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.</p>
CR	<p>Critically endangered species Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
EN	<p>Endangered species Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
VU	<p>Vulnerable species</p>

Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

EX Presumed extinct species

Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.

IA Migratory birds protected under an international agreement

Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.

CD Conservation dependent fauna

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.

OS Other specially protected fauna

Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.

P Priority species

Species which are poorly known; or
Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 Priority One - Poorly-known species:

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 Priority Two - Poorly-known species:

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 Priority Three - Poorly-known species:

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

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

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

- (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.