



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5427/4
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: FMG Iron Bridge Limited

1.3. Property details

Property: Mining Lease 45/1226
Local Government Area: Shire of East Pilbara
Colloquial name: North Star Hematite Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
349		Mechanical Removal	Mineral Production and Associated Infrastructure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 23 February 2017

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. One Beard vegetation association has been mapped within the application area (GIS Database):

Beard vegetation association 82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*.

A flora and vegetation survey of the application area and surrounding areas was conducted by Ecologia in April, August and September 2011 (Ecologia, 2012). This survey identified the following 33 vegetation communities within the survey area (Ecologia, 2012):

Rocky Hills and Plains

ElApEm - *Eucalyptus leucophloia* isolated low trees over *Grevillea wickhamii* isolated mid shrubs, over *Acacia ptychophylla* low shrubland, over *Eriachne mucronata* isolated hummock grasses;

AaTw - *Grevillea wickhamii*, *Acacia acradenia* and *Acacia orthocarpa* sparse mid shrubland, over *Triodia wiseana* sparse hummock grassland, over *Dampiera candidans* isolated herbs;

AtEm - *Acacia tumida* and *Grevillea wickhamii* open tall shrubland, over *Acacia orthocarpa* open mid shrubland over *Eriachne mucronata* isolated tussock grasses, over *Dampiera candidans* isolated herbs;

AtTw - *Acacia tumida* and *Grevillea wickhamii* open tall shrubland, over *Triodia wiseana* open hummock grassland;

AoTw - *Acacia orthocarpa* open tall shrubland, over *Triodia wiseana* open hummock grassland and *Eriachne pulchella* isolated tussock grasses;

Tw - *Triodia wiseana* and *Triodia schinzii* hummock grassland and *Eriachne mucronata* isolated hummock grasses;

ElApTw - *Eucalyptus leucophloia* isolated trees, over *Acacia ptychophylla* sparse shrubland, over *Triodia wiseana* open hummock grassland, over *Dampiera candidans* and *Polycarpaea holtzei* isolated herbs;

Tw - *Triodia wiseana* open hummock grassland, over *Bonamia media* isolated herbs;

Calcrete

Tw - *Triodia wiseana* and *Triodia basedowii* hummock grassland;

Rocky Hills and Plains

AaTw - *Acacia acradenia* open mid shrubland, over *Triodia wiseana* hummock grassland;

AaTw - *Acacia tumida* and *Grevillea wickhamii* sparse tall shrubland, over *Acacia acradenia* open mid shrubland, over *Triodia wiseana* hummock grassland;

AaTw - *Acacia acradenia* and *Acacia inaequilatera* sparse mid shrubland over *Triodia wiseana* and *Triodia lanigera* hummock grassland;

Tw - *Triodia wiseana* hummock grassland;

Shrubby Drainage Lines

At - *Acacia tumida* and *Grevillea wickhamii* tall shrubland, over *Indigofera monophylla* sparse low shrubland;

Sandy Loams and Gravelly Plains

ImTs - *Indigofera monophylla* isolated low shrubs, over *Triodia schinzii* open hummock grassland, over *Ptilotus astrolasius* isolated herbs;

AsTI - *Acacia stellaticeps* sparse low shrubland, over *Triodia longiceps* hummock grassland, over *Bulbostylis barbata* isolated sedges;

Cl - *Grevillea wickhamii* isolated tall shrubs, over *Corchorus laniflorus* and *Solanum phlomoides* sparse shrubland;

AaTb - *Petalostylis labicheoides* and *Acacia acradenia* sparse mid shrubland, over *Corchorus laniflorus* sparse low shrubland, over *Chrysopogon fallax* sparse tussock grassland and *Triodia basedowii* sparse hummock grassland;

AtbT - *Acacia inaequilatera* and *Grevillea wickhamii* sparse tall shrubland, over *Acacia acradenia* sparse mid shrubland, over *Triodia basedowii* and *Triodia wiseana* hummock grassland;

AoTb - *Acacia orthocarpa* open mid shrubland, over *Indigofera monophylla* sparse low shrubland, over *Triodia basedowii* open hummock grassland;

Drainage Lines

GwTe - *Grevillea wickhamii* sparse mid shrubland, over *Triodia epactia* or *Triodia schinzii* open hummock grassland and isolated *Eriachne ciliata* grasses and *Polycarpha holtzei* herbs;

GwTp - *Grevillea wickhamii* sparse tall shrubland, over *Triodia pungens* open hummock grassland and isolated *Eragrostis cumingii* tussock grasses, *Cyperus squarrosus* sedges, and *Stemodia viscosa* herbs;

Ap - *Acacia pyrifolia*, *Gossypium robinsonii*, *Tephrosia rosea* and *Cajanus cinereus* mid shrubland;

ApTp - *Acacia pyrifolia*, *Acacia acradenia*, *Tephrosia rosea* and *Indigofera monophylla* mid shrubland, over *Triodia pungens* open hummock grassland;

Rocky Outcrops

Tl - *Triodia lanigera* open hummock grassland, with *Cyperus hesperius* isolated sedges, *Eriachne ciliate* isolated grasses and *Cleome viscosa* isolated herbs;

GaTw - *Gossypium australe* sparse mid shrubland, over *Triodia wiseana* open hummock grassland;

Rivers, Gorges, Creeks and Floodplains

FpAtCo - *Ficus platypoda* open woodland, over *Acacia tumida* and *Gossypium robinsonii* sparse tall shrubland, over *Cymbopogon oblectus* and *Eriachne mucronata* sparse tussock grassland and *Cyperus hesperius* isolated sedges;

ChAbTp - *Corymbia hamersleyana* open low woodland, over *Acacia bivenosa* mid shrubland, over *Triodia pungens* open hummock grassland and *Cenchrus ciliaris* sparse tussock grassland;

EvCc - *Cenchrus ciliaris* tussock grassland;

PfTp - *Pluchea ferdinand muelleri* open low shrubland, over *Triodia pungens* sparse hummock grassland and *Cenchrus ciliaris*, *Eriachne lanata* and *Chrysopogon fallax* open tussock grassland;

Granite Sandy Plains and Outcrops

ImTp - *Indigofera monophylla* and *Solanum phlomoides* sparse open shrubland, over *Triodia pungens* and *Triodia basedowii* sparse hummock grassland with *Mollugo molluginea* and *Bonamia linearis* isolated herbs;

SpTI - *Solanum phlomoides* isolated low shrubs, over *Triodia lanigera* open hummock grassland; and

Tp - *Triodia pungens* open hummock grassland.

Clearing Description

North Star Hematite Project

FMG Iron Bridge Limited (FMG) proposes to clear up to 349 hectares of native vegetation within a total boundary of approximately 2,259 hectares, for the purpose of developing an open pit and construct a processing plant, accommodation camp, roads and other associated infrastructure. The project is located approximately 70 kilometres west of Marble Bar, in the Shire of East Pilbara.

Vegetation Condition	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994); To Pristine: No obvious signs of disturbance (Keighery, 1994).
Comment	The vegetation condition was derived from a flora and vegetation survey conducted by Ecologia (2012). Clearing Permit CPS 5427/1 was granted by the Department of Mines and Petroleum (DMP) for mineral production on 3 July 2013 and authorised the clearing of 319 hectares of native vegetation within a total boundary of approximately 2,145 hectares. Clearing permit CPS 5427/1 was amended by the DMP on 27 March 2014 for the purpose of increasing the permit boundary from 2,145 hectares to 2,259 hectares. Clearing permit CPS 5427/2 was amended on 14 August 2014 for the purpose of increasing the amount of clearing from 319 hectares to 349 hectares. The permit boundary area remained unchanged. On 21 December 2016, FMG Iron Bridge Limited applied to amend CPS 5427/3 in order to alter Condition 7 so that the Tailings Storage Facility (TSF) is not included in areas where existing surface flows are to be maintained. The TSF was approved for construction under the <i>Mining Act 1978</i> (approved mining proposal) and as the valley fill TSF embankment is designed to act as a dam, adherence to Condition 7 is not currently possible.

3. Assessment of application against clearing principles

Comments

The amendment to alter Condition 7 so that the Tailings Storage Facility (TSF) is not included in areas where existing surface flows are to be maintained is unlikely to result in any significant change to the environmental impacts of the proposed clearing, as the TSF (approved under the *Mining Act 1978*) has already been constructed and surface flows have already been compromised. The proposed amendment will align approvals and allow for compliance with requirements imposed under Condition 7. The size of the area approved to clear (349 hectares) and the permit boundaries remain unchanged.

The assessment against the clearing principles remains consistent with the assessment contained in decision report CPS 5427/3.

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

Comments

There is one native title claim over the area under application (DAA, 2017). This claim (WC1999/008) has been registered with the Native Title Tribunal on behalf of the claimant group (GIS Database). 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*.

According to available databases, there are several registered Aboriginal Sites of Significance within close proximity to the application area (DAA, 2017). 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 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 9 January 2017 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the application.

Methodology

DAA (2017)
GIS Database:
- Aboriginal Sites of Significance

4. References

- DAA (2017) Aboriginal Heritage Inquiry System, Department of Aboriginal Affairs, Perth, Western Australia < <http://maps.dia.wa.gov.au> > (Accessed February 2017).
- Ecologia (2012) Fortescue Metals Group Ltd North Star Project Level 2 Flora and Vegetation Survey. Unpublished report prepared for Fortescue Metals Group Ltd, July 2012
- 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 **Threatened species:**
Published as Specially Protected under the *Wildlife Conservation Act 1950*, 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).

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.

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.

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.

CR **Critically endangered species**
Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

EN **Endangered species**
Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

VU **Vulnerable species**
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.

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.