



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5427/3
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 & Associated Infrastructure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 19 March 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. One Beard vegetation association has been mapped within the application area (GIS Database):

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, 2012a). This survey identified the following 33 vegetation communities within the survey area (Ecologia, 2012a):

Rocky Hills and Plains

EIApEm - *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;

EIApTw - *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;

AiTb - *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 *Polycarpaea 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

TI - *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 obtectus* 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	Vegetation clearing will be undertaken by mechanical means and the vegetation and topsoil will be stockpiled for use in rehabilitation. 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. On the 30 December 2014 the DMP received an application to amend CPS 5427/2 for the purpose of increasing the clearing permit area from 319 hectares to 349 hectares. The permit boundary area remained unchanged.

3. Assessment of application against clearing principles

Comments

FMG Iron Bridge Limited has applied to increase the clearing permit area from 319 hectares to 349 hectares. The total area of the permit boundary will remain unchanged.

A flora and vegetation survey conducted by Ecologia in April, August and September 2011 identified 453 plant taxa from 55 families and 168 genera within the survey area (FMG, 2014). The families and genera within the application area are considered to be common within the Pilbara region (FMG, 2014). No vegetation communities recorded during the flora and vegetation survey were considered to be Threatened or Priority Ecological Communities and no Threatened Flora species were recorded within the application area. One conservation significant flora species, *Pityrodia* sp. Marble Bar (Priority 1) was recorded within the application area (Ecologia, 2012a). A total of approximately 38 individuals of this species were recorded within the application area (Ecologia, 2012a). Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a flora management condition.

The proposed 30 hectares of additional clearing will occur in Rocky Spinifex Hills habitat (FMG, 2014). This is the most common habitat within the application area and is well represented in the local area with almost 24,000 ha mapped during the 2011 survey (Ecologia, 2012b). This habitat has not been identified as being of conservation significance, although does provide foraging and dispersal habitat for some conservation significant fauna species (FMG, 2014).

There are no conservation areas within or in close proximity to the application area (GIS Database). The closest conservation area is Mungaroon Range Nature Reserve which is approximately 74 kilometres to the south west of the application area (GIS Database).

There are no permanent wetlands or watercourses within the application area (GIS Database). There are several ephemeral drainage lines that intersect the application area however the flora and vegetation survey did not identify any riparian vegetation growing in association with these drainage lines (Ecologia, 2012a).

The proposed additional clearing of 30 hectares is consistent with the assessment contained in the Decision Report for CPS 5427/1 however it is recommended a flora management condition be added for *Pityrodia* sp. Marble Bar (Priority 1) to the amended permit. In addition Condition 5 from CPS 5427/2 has been deleted in order to remain consistent with the variation in conditions on EPBC 2012/6530 approved by the Department of the Environment on 10 February 2015 and Ministerial Statement 993.

Methodology	Ecologia (2012a) Ecologia (2012b) FMG (2014) GIS Database: - DEC Tenure - Hydrography, linear - Threatened Ecological Sites Buffered - Threatened and Priority Flora
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Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

There is one native title claim over the area under application (GIS Database). This claim (WC99/8) 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 no 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 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 January 2015 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
- Native Title Claims - Filed at the Federal Court
- Native Title Claims - Registered with the NNTT

4. References

- Ecologia (2012a) Fortescue Metals Group Ltd North Star Project Level 2 Flora and Vegetation Survey. Unpublished report prepared for Fortescue Metals Group Ltd dated July 2012.
- Ecologia (2012b) Fortescue Metals Group Ltd North Star Project Level 2 Terrestrial Vertebrate Fauna Assessment. Unpublished report prepared for Fortescue Metals Group Ltd dated July 2012.
- FMG (2014) Application to Amend Native Vegetation Clearing Permit CPS 5427/2 – North Star Hematite Project. Unpublished report dated December 2014.
- 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
s.17	Section 17 of the <i>Environment Protection Act 1986</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DPaW (2013) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T **Threatened species:**
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna or the Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

Threatened Fauna and Flora are further recognised by DPaW according to their level of threat using IUCN Red List criteria. For example Carnaby's Cockatoo *Calyptorhynchus latirostris* is specially protected under the *Wildlife Conservation Act 1950* as a threatened species with a ranking of Endangered.

Rankings:

CR: Critically Endangered - considered to be facing an extremely high risk of extinction in the wild.

EN: Endangered - considered to be facing a very high risk of extinction in the wild.

VU: Vulnerable - considered to be facing a high risk of extinction in the wild.

- X Presumed Extinct species:**
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora (which may also be referred to as Declared Rare Flora).
- IA Migratory birds protected under an international agreement:**
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice. Birds that are subject to an agreement between governments of Australia and Japan, China and The Republic of Korea relating to the protection of migratory birds and birds in danger of extinction.
- S Other specially protected fauna:**
Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P1 Priority One - Poorly-known species:**
Species that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, rail reserves and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.
- P2 Priority Two - Poorly-known species:**
Species that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.
- P3 Priority Three - Poorly-known species:**
Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities 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 localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.
- P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:**
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.
Near Threatened. Species that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable. Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.
- P5 Priority Five - Conservation Dependent species:**
Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five 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.