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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6171/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Fortescue Metals Group Limited**

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: Cobra East Prospect

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.68		Mechanical Removal	Access Track

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 30 October 2014

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 is located within the application area (GIS Database):

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

A level 2 flora and vegetation survey of the application area and surrounding area conducted by Ecoscape (2012) during May and June 2012 identified one vegetation type within the application area:

ElTwAp: *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* low open woodland over *Triodia wiseana* and *T.* sp. Robe River low hummock grassland with *Acacia pyrifolia* var. *pyrifolia* and *A. maitlandii* low mid scattered shrubs.

Clearing Description

Cobra East Prospect.
Fortescue Metals Group Limited proposes to clear up to 0.68 hectares of native vegetation within a total boundary of approximately 0.68 hectares, for the purposes of an access track. The project is located approximately 133 kilometres north-west of Tom Price, in the Shire of Ashburton.

Vegetation Condition

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994);

To:

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

Comment

The proposed clearing is for the construction of approximately 1.71 kilometres of a new track which will be 4 metres wide. The track will provide temporary access for mineral exploration activities (Fortescue Metals Group Limited, 2014).

Vegetation and topsoil will be cleared together to a minimum of 100 millimetres using a lowered blade. The vegetation and topsoil will be stockpiled and reinstated during rehabilitation.

Vegetation condition within the project area was recorded using the condition scale created by Trudgen (1988). These condition ratings have been converted to those implemented in the condition scale created by Keighery (1994).

3. Assessment of application against clearing principles

Comments

The application area occurs within the Hamersley (PIL3) subregion of the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by mulga low woodland over bunch grasses on fine textured soils in valley floors, and *Eucalyptus leucophloia* over Triodia brizoides on skeletal soils of the ranges (CALM, 2002).

The condition of the vegetation was classified as 'degraded' to 'good' (Ecoscape, 2012, Keighery, 1994). No Threatened Ecological Communities or Priority Ecological Communities were recorded within the application area (Ecoscape, 2012; GIS Database).

A total of 443 flora taxa from 175 genera and 59 families were recorded within the larger survey area (Ecoscape, 2012). No species of Threatened flora have been recorded within the application area (Ecoscape, 2012; GIS Database). There were eight species of Priority flora recorded during the flora survey; however, these were not recorded within the application area or within the same vegetation community (Ecoscape, 2014). The proposed clearing is not likely to impact on any significant flora species.

A level 2 fauna survey by Ecologia Environment (2012) was conducted over the application area and surrounding areas during May 2012 and the targeted conservation significant fauna survey was conducted during July 2012. Six fauna habitat types were identified during the fauna survey, however the application area consisted of the fauna habitat type 'hilltops, hillslopes, ridges and cliffs'. The fauna habitats within the application area support a moderately diverse group of fauna, including conservation significant fauna, but these are not restricted to the application area and occur within the broader region (Ecologia Environment, 2012).

Ecologia Environment (2012) recorded 22 native mammals, 100 bird, 58 reptile, three amphibian and six fish species during the fauna survey, however no species of conservation significance were surveyed within the application area (Ecologia Environment, 2012). There are two conservation significant species, Northern Quoll (*Dasyurus hallucatus*) (EPBC Act - Endangered; WC Act - Schedule 1) and the Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia*) (EPBC Act - Vulnerable; WC Act - Schedule 1) recorded within the habitat type that characterises the application area (Ecologia Environment, 2012). However, based on the small scale clearing (0.68 hectares) and the low impact nature of the proposed activities, it is unlikely that the proposed clearing will impact on the conservation significance of any potential conservation significant fauna species or their faunal habitat.

There are no permanent watercourses or water bodies mapped within the area under application (GIS Database). There was no riparian vegetation mapped within the application area (Ecoscape, 2012).

The land system associated with the application area is not susceptible to erosion (Van Vreeswyk et al., 2004) and the proposed clearing is not likely to cause deterioration in the quality of surface or underground water or increase the incidence or intensity of flooding (GIS Database).

The application area is not located within any conservation area (GIS Database). There are no conservation areas within 80 kilometres of the application area (GIS Database).

There were several weed species identified within the application area and surrounding area (DPaW, 2014). Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The proposal to clear 0.68 hectares of native vegetation within an application area of 0.68 hectares for the purpose of the construction of an access track is unlikely to have any significant environmental impacts.

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*, and the proposed clearing is not likely to be at variance to Principles (a), (b), (c), (d), (f), (g), (h), (i), and (j), and is not at variance to Principle (e).

Methodology

CALM (2002)
DPaW (2014)
Ecologia Environment (2012)
Ecoscape (2012)
Keighery (1994)
Van Vreeswyk et al (2004)
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, Previous EPA decision or other matter.

Comments

There is one Native Title claim over the area under application (GIS Database). The claim WC2001/005 has been registered with the National Native Title Tribunal on behalf of the claimant group. 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 no known 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, Department of Parks and Wildlife 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 clearing permit application was advertised on 15 September 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology

GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Registered with the NNTT
- Native Title Claims - Filed at the Federal Court
- Native Title Claims - Determined by the Federal Court

4. References

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Pilbara3 (PIL3 - Hamersley subregion) Department of Conservation and Land Management, Western Australia.

DPaW (2014) NatureMap Department of Parks and Wildlife, viewed 13 October 2014 <http://naturemap.dec.wa.gov.au>.

Ecologia Environment (2012) Terrestrial Vertebrate Fauna Assessment for the Western Hub Project - Delphine. Report prepared for Fortescue Metals Group Ltd by Ecologia Environment, October 2012.

Ecoscape (2012) Delphine Level 2 Flora and Vegetation Survey. Report prepared for Fortescue Metals Group Ltd, 2012

Fortescue Metals Group Limited (2014) Permit to Clear Native Vegetation for Access Tracks in the Mineral Lease 70/4 (Cobra East Prospect). Internal Document, June 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.

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

Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) Technical Bulletin - An Inventory and Condition Survey of the Pilbara Region, Western Australia, No. 92. Department of Agriculture, Government of Western Australia, Perth, 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	*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
PEC	Priority Ecological Community, Western Australia
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:

{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 *Calyptorynchus 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:**
(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 do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.
(c) 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.