Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3164/2

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **BHP Billiton Iron Ore Pty Ltd**

1.3. Property details

Property: *Iron Ore (Mount Newman) Agreement Act 1964*, Special Lease for Mining Operations 3116/3687, Document I 154279 L, Lot 19 on Deposited Plan 48921

Local Government Area: Shire Of East Pilbara

Colloquial name: Paroo, Sandhill and Ethel Sidings Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
308		Mechanical Removal	Railway construction and maintenance and associated works.

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 28 August 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 and are useful to look at vegetation extent in a regional context. The following Beard Vegetation Associations are located within the application areas (GIS Database):

29: Sparse low woodland; mulga, discontinuous in scattered groups; and
111: Hummock grasslands, shrub steppe; *Eucalyptus gamophylla* over hard spinifex.

ENV Australia Pty Ltd (ENV Australia) (2008) undertook flora and vegetation surveys that covered the railway reserve between Jimblebar Junction and Yandi Junction, encompassing the locations of the Paroo, Sandhill and Ethel railway sidings. ENV Australia (2008) identified 13 vegetation communities within the application areas:

AdAnTp/*CC (*Acacia dictyophleba* shrubland):
Acacia dictyophleba high open shrubland over mixed *Acacia* shrubland over *Triodia pungens* open hummock grassland over **Cenchrus ciliaris* tussock grassland. Vegetation condition ranged from 'Good' to 'Very Poor'.

AaAnTp/*Cc (*Acacia aneura* open woodland):
Acacia aneura (mixed subspecies) low open woodland over *Acacia ancistrocarpa* shrubland over *Triodia pungens* open hummock grassland over **Cenchrus ciliaris* tussock grassland. Vegetation condition ranged from 'Good' to 'Very Poor' and one survey site was determined to be 'Completely Degraded'.

AaAsCf/*Cc (*Acacia aneura* shrubland):
Acacia aneura (mixed subspecies), *Acacia ancistrocarpa*, *Acacia pruinocarpa* and *Acacia synchronicia* shrubland over *Triodia pungens* very open hummock grassland over *Chrysopogon fallax* and **Cenchrus ciliaris* tussock grassland. Vegetation condition ranges from 'Very Good' to 'Very Poor'.

EgApTp*Cc (*Eucalyptus gamophylla* low open mallee woodland):
Eucalyptus xerothermica low open woodland over *Eucalyptus gamophylla* low open mallee woodland over mixed *Acacia* shrubland over *Triodia pungens* open hummock grassland over **Cenchrus ciliaris* tussock grassland. Vegetation condition ranges from 'Good' to 'Poor'.

ChAp*Cc (*Corymbia hamersleyana* woodland - plains):
Corymbia hamersleyana, *Corymbia semiclara* and *Corymbia* aff. *opaca* scattered low trees over mixed *Acacia* shrubland over *Triodia basedowii* and *Triodia pungens* very open hummock grassland over **Cenchrus ciliaris* tussock grassland. Vegetation condition ranges from 'Good' to 'Very Poor'.

ApAsCf/*Cc (*Acacia pruinocarpa* low woodland):
Acacia pruinocarpa low woodland over mixed *Acacia* shrubland over *Chrysopogon fallax* and **Cenchrus ciliaris* tussock grassland. Vegetation condition ranges from 'Good' to 'Very Poor'.

ExAa*Cc (*Eucalyptus xerothermica* low open woodland - riparian):
Eucalyptus xerothermica low open woodland over mixed *Acacia citrinoviridis* and other *Acacia* species shrubland

over *Triodia pungens* open hummock grassland over **Cenchrus ciliaris* open tussock grassland. Vegetation condition ranges from 'Good' to 'Poor'.

AcAs*Cc (*Acacia citrinoviridis* woodland/shrubland - drain / riparian):
Acacia citrinoviridis and mixed *Acacia* species high shrubland over **Cenchrus ciliaris* tussock grassland. Vegetation condition ranges from 'Poor' to 'Very Poor'.

CaAn*Cc (*Corymbia aspera* low open woodland):
Corymbia aspera low open woodland over mixed *Acacia* species shrubland over *Triodia pungens* open hummock grassland over **Cenchrus ciliaris* open tussock grassland. Vegetation condition ranges from 'Good' to 'Very Poor'.

EvAc*Cc (*Eucalyptus victrix* low woodland - riparian):
Eucalyptus victrix low woodland over mixed *Acacia* species shrubland over *Triodia pungens* very open hummock grassland over **Cenchrus ciliaris* tussock grassland. Vegetation condition ranges from 'Good' to 'Poor'.

ApSaCf (*Acacia pruinocarpa* shrubland over *Senna artemisioides* scrub):
Acacia pruinocarpa and mixed *Acacia* species shrubland over *Senna artemisioides* (mixed subspecies) low shrubland over *Chrysopogon fallax* and **Cenchrus ciliaris* tussock grassland. Vegetation condition ranges from 'Poor' to 'Very Poor'.

AsTp/*Cc (*Acacia synchronicia* shrubland):
Acacia synchronicia and mixed *Acacia* species shrubland over *Triodia pungens* hummock grassland over **Cenchrus ciliaris* and *Chrysopogon fallax* tussock grassland. Vegetation condition ranges from 'Very Good' to 'Very Poor'.

AdTp (*Acacia dictyophleba* and *Acacia ancistrocarpa* high shrubland - drain / riparian):
Acacia dictyophleba, *Acacia marramamba* and *Acacia ancistrocarpa* high shrubland over *Triodia pungens* very open hummock grassland over **Cenchrus ciliaris*, *Chrysopogon fallax* tussock grassland. Vegetation condition was determined to be 'Poor'.

The majority of vegetation communities at the survey sites were described to be in 'Poor' to 'Very Poor' condition due to previous disturbance from the establishment of the Port Hedland to Newman Railway (ENV Australia, 2008).

Clearing Description

Paroo, Sandhill and Ethel Sidings Project.

BHP Billiton Iron Ore Pty Ltd (BHP) proposes to clear up to 308 hectares of native vegetation within a total boundary of 491 hectares for the purpose of railway construction and maintenance and associated works. The project is located approximately 27 kilometres north-east of Newman, in the Shire of East Pilbara.

Vegetation Condition

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

To:

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

Comment

Vegetation clearing will be undertaken using mechanical means. The majority of the proposed clearing will be rehabilitated following the completion of the proposed activities (approximately 280 hectares or 91% of the total proposed clearing) (BHP, 2009).

Vegetation condition rating is derived from information provided by ENV Australia (2008).

Clearing permit CPS 3164/1 was granted by the Department of Mines and Petroleum on 3 September 2009. The clearing permit authorised the clearing of 308 hectares of native vegetation within a total boundary of approximately 491 hectares. On 18 June 2014, BHP Billiton Iron Ore Pty Ltd applied to extend the permit expiry date to 30 November 2024 and amend the annual reporting date to 1 October.

3. Assessment of application against clearing principles

Comments

The amendment to extend the permit duration and change the annual reporting date is unlikely to result in any additional environmental impacts. The size of the area approved to clear and the permit boundaries remain unchanged.

The assessment against the clearing principles remains consistent with the assessment in decision report CPS 3164/1.

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

Comments

There are two native title claims over the application area (GIS Database). These claims (WC11/006 and WC05/006) have been registered with the National Native Title Tribunal on behalf of the claimant groups. 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 registered sites of Aboriginal Significance in the application area. It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Sites of Aboriginal Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation, the 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.

Methodology

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

4. References

BHP (2009) Application to clear native vegetation (purpose permit) under the Environmental Protection Act 1986: Paroo, Sandhill and Ethel Sidings. BHP Billiton Iron Ore Pty Ltd, Western Australia.

ENV Australia (2008) Rapid Growth Project 5: Jimblebar Junction to Yandi Junction Railway Reserve, Flora and vegetation assessment, ENV Australia Pty Ltd, 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.

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 the Department 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.