Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2161/6
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: BHP Billiton Iron Ore Pty Ltd

1.3. Property details

Property: *Iron Ore* (McCameys Monster) *Agreement Act 1972*, Mining Lease 266SA (AM 70/266)
Local Government Area: Shire of East Pilbara
Colloquial name: South Jimblebar Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
755		Mechanical Removal	Mineral Exploration

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 1 November 2012

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description The area applied to clear has been broadly mapped as: Beard Vegetation Association 29: Sparse low woodland; Mulga, discontinuous in scattered groups, Beard Vegetation Association 82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana* and Beard Vegetation Association 216: Low woodland; Mulga (with spinifex) on rises (GIS Database).

Ecologia Environment Pty Ltd (2006) undertook a baseline biological survey of the western portion of the proposed clearing area between 22 and 28 May 2006. The following four vegetation types were identified from the area:

1. *Acacia aneura / Acacia pruinocarpa / Corymbia ferriticola* sometimes with *Eucalyptus leucophloia* open scrub to open low woodland B over *Eremophila fraseri / E. forrestii / Senna artemisioides subsp. oligophylla x helmsii* over mixed open herbs and hummock grass;

2. *Acacia colei var. colei* open scrub to open low woodland, over *Acacia melleodora* open shrubs, over *Aristida sp. / Enneapogon sp.* open low grassland;

3. Scattered *Corymbia hamersleyana / Corymbia ferriticola*, over *Acacia melleodora* open low shrubs, over *Triodia basedowii / Triodia wiseana* moderately dense hummock grass; and

4. Scattered medium shrubs of *G. wickhami / A. pachyacra / Hakea lorea* sometimes with *Eucalyptus gamophylla*, over open to moderately dense *A. ancistrocarpa* sometimes with *Acacia hilliana*, over *Triodia spp.*

Ecologia Environment Pty Ltd (2007) conducted a dual season biological survey over the eastern portion of the proposed clearing area between 24 August and 1 September 2005 and 15 and 21 February 2006. The following seven vegetation types were mapped from the area at a scale of 1:25,000:

1. *Corymbia hamersleyana* open low woodland over *Acacia aneura* open low woodland over *Gossypium robinsonii / Grevillea wickhamii* open scrub over *Acacia sp. / Eremophila fraseri / Eremophila forrestii* open low scrub over *Ptilotus obovatus / Solanum lasiophyllum* open dwarf scrub over **Cenchrus ciliaris* open low grass;

2. *Grevillea wickhamii* open low scrub over *Sida arenicola / Ptilotus calostachyus* open dwarf scrub over *Acacia hilliana / Acacia adoxa / Goodenia stobbsiana / Halgania solanacea / Scaevola parvifolia* open dwarf scrub over *Triodia basedowii* open hummock grass;

3. *Acacia aneura / Acacia pruinocarpa* open low woodland over *Acacia maitlandii* open low scrub over *Ptilotus rotundifolius / Senna glutinosa* open dwarf scrub over *Acacia hilliana / Halgania solanacea / Gompholobium polyzygum* open low scrub over *Triodia basedowii* mid-dense hummock grass;

4. *Eucalyptus victrix* woodland over open low woodland over open scrub over **Cenchrus ciliaris* dense low grass;

5. *Acacia aneura* open scrub *over Eremophila compacta* open dwarf scrub over *Triodia basedowii* open hummock grass;

6. *Corymbia hamersleyana* open low woodland over *Petalostylis labicheoides* open low scrub over *Triodia basedowii* open hummock grass over **Cenchrus ciliaris* open low grass;

7. *Acacia aneura / Acacia rhodophloia* low woodland over *Eremophila latrobei / Eremophila exilifolia / Dodonaea petiolaris / Sida calyxhymenia* low scrub over *Triodia basedowii* hummock grass.

* = introduced flora species

Clearing Description

This clearing permit application is for a Purpose Permit to clear up to 755 hectares within a boundary of approximately 6,753 hectares (as amended) (GIS Database). The proposed clearing area is located south, east and west of the existing Jimblebar mine, situated approximately 50 kilometres east of Newman in the Pilbara Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (BHP Billiton, 2007).

Vegetation Condition

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).

to

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

Comment

A majority of the proposed clearing area is within the Sylvania Pastoral lease (GIS Database). Consequently, Buffel Grass (*Cenchrus ciliaris*) was a dominant component of the understorey vegetation in some areas (particularly fringing the Jimblebar Creek and the bordering floodplain) (Ecologia Environment Pty Ltd, 2007).

Overgrazing by cattle was noted at several survey sites throughout the proposed clearing area, whilst some areas were observed to be in a post-fire regrowth stage (Ecologia Environment Pty Ltd, 2007).

Clearing Permit CPS 2161/1 (granted on 14 February 2008) contained two clerical errors that were corrected by the grant of Clearing Permit CPS 2161/2 on 20 March 2008.

BHP Billiton contacted the Department of Mines and Petroleum (DMP) on 2 February 2009 to point out a discrepancy with Clearing Permit CPS 2161/2 that had been uncovered during mineral exploration activity within the area approved to clear under the permit. Permit Condition 7 sets out coordinates for Priority Flora locations to be avoided during vegetation clearing, and these are marked green on the attached Permit Plan 2161/2. BHP Billiton noted that one of the coordinates listed under Condition 7 is not consistent with areas marked green on attached Plan 2161/2. DMP conducted a review of the discrepancy and found that an inadvertent error was made. The error was corrected by deleting the coordinates listed under Condition 7 (i), and including the following coordinates in their place: Zone 51 199099E 7410100N. No additional assessment of the ten Clearing Principles was required to correct the inadvertent error made on Clearing Permit CPS 2161/2.

On 30 July 2009 BHP Billiton applied to increase the purpose permit boundary of Clearing Permit CPS 2161/3 by 813 hectares. BHP Billiton did not apply to increase the total number of hectares to be cleared under this amendment. On 7 December 2010 BHP Billiton applied to amend the area subject to Condition 3. Condition 3 does not authorise clearing within the area shaded red, which represents the Jimblebar Creek and associated riparian vegetation. BHP Billiton applied to remove an approximate 300 metre stretch of the conditioned area to change the location of the creek crossing.

On 7 September 2012 BHP Billiton applied to reduce the clearing permit boundary from approximately 6,753 hectares to 1,461 hectares. BHP Billiton has also applied to amend the annual reporting date to 1 October and extend the duration of the permit by five years.

3. Assessment of application against clearing principles

Comments

BHP Billiton Iron Ore Pty Ltd has applied to reduce the clearing permit boundary, extend the duration of the permit and change the annual reporting date. Given the areas requested to be removed from the permit still have rehabilitation requirements, the permit boundary will remain the same at this time. As the other changes are administrative changes only, there are no additional environmental impacts and the assessment of the clearing principles is consistent with the assessment in the decision report for CPS 2161/5.

Methodology

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

Comments

There is one Native Title Claim (WC05/6) over the area under application (GIS Database). This claim 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 a number of 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 and Conservation 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

4. References

BHP Billiton (2007) Exploration: South Jimblebar. Purpose Permit Vegetation Clearing Permit Application - Supporting Documentation. Revision 1. October 2007.

Ecologia Environment Pty Ltd (2006) Jimblebar Marra Mamba Exploration Biological Survey. Unpublished report for BHP Billiton Iron Ore.

Ecologia Environment Pty Ltd (2007) Hashimoto Exploration Project Biological Survey: Flora and Vegetation. Unpublished report for BHP Billiton Iron Ore.

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
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
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
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:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005.* Department of Conservation and Land Management, Como, Western Australia} :-

P1 **Priority One - Poorly Known taxa**: taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

P2 **Priority Two - Poorly Known taxa**: taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa

are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

P3 **Priority Three - Poorly Known taxa**: taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.

P4 **Priority Four – Rare taxa**: taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.

R **Declared Rare Flora – Extant taxa** *(= Threatened Flora = Endangered + Vulnerable)*: taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

X **Declared Rare Flora - Presumed Extinct taxa**: taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

Schedule 1 **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.

Schedule 2 **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.

Schedule 3 **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.

Schedule 4 **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna*. Department of Conservation and Land Management, Como, Western Australia} :-

P1 **Priority One: Taxa with few, poorly known populations on threatened lands**: Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P2 **Priority Two: Taxa with few, poorly known populations on conservation lands**: Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P3 **Priority Three: Taxa with several, poorly known populations, some on conservation lands**: Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P4 **Priority Four: Taxa in need of monitoring**: Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.

P5 **Priority Five: Taxa in need of monitoring**: Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999)*

EX **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.

EX(W) **Extinct in the wild:** A native species which:
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.

CR **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.

EN **Endangered:** A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.

VU **Vulnerable:** A native species which:

(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

CD **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 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.