



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4639/2
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 Goldsworthy) Agreement Act 1964, Mineral Lease 281SA (AML 70/281)
Local Government Area: Shire of Ashburton and Shire of East Pilbara
Colloquial name: Hill 65

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
140.2		Mechanical Removal	Mineral exploration, hydrogeological investigations, bore field establishment and associated infrastructure.

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 24 October 2013

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. Two Beard vegetation associations have been mapped within the proposed amended permit area (GIS Database):

- Beard vegetation association 18: Low woodland; mulga (*Acacia aneura*); and
- Beard vegetation association 82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*.

Flora and vegetation surveys of the proposed amended permit area have identified the following broad vegetation communities within this area (Astron Environmental Services, 2010; Onshore Environmental Services, 2011a and 2011b):

- *Acacia* low woodland;
- *Acacia* low open woodland;
- *Acacia* low open forest;
- *Acacia* high shrubland;
- *Aristida* open tussock grassland;
- *Corymbia* low woodland;
- *Eucalyptus* woodland;
- *Themeda* open tussock grassland;
- *Themeda* tussock grassland;
- *Themeda* closed tussock grassland;
- *Triodia* hummock grassland; and
- *Triodia* open hummock grassland.

Clearing Description

Hill 65.
BHP Billiton Iron Ore Pty Ltd proposes to clear up to 140.2 hectares of native vegetation within a total boundary of 10,679 hectares for the purposes of mineral exploration, hydrogeological investigations, the establishment of a potable water supply bore field and associated infrastructure. The project is situated approximately 105 kilometres northwest of Newman in the Shire of Ashburton and the Shire of East Pilbara (GIS Database).

Vegetation Condition

Excellent: Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species;

to

Degraded: Basic vegetation structure severely impacted by disturbance. Scope for regeneration, but not to a state approaching good condition without intensive management (Keighery, 1994).

Comment

Clearing permit CPS 4639/1 was granted by the Department of Mines and Petroleum (DMP) on 22 December 2011 and allowed for the clearing of 140.2 hectares of native vegetation within a 10,216 hectare permit area. An application to amend clearing permit CPS 4639/1 was received by DMP on 23 August 2013. The application requested a 463.5 hectare increase to the permit area.

3. Assessment of application against clearing principles

Comments

BHP Billiton Iron Ore Pty Ltd has applied to increase the clearing permit boundary of CPS 4639/1 from approximately 10,216 hectares to 10,679 hectares (BHP Billiton Iron Ore Pty Ltd, 2013). Within this proposed amended permit area 140.2 hectares of native vegetation will be cleared to facilitate mineral exploration activities, hydrogeological investigations and the establishment of a potable water supply bore field with associated infrastructure (BHP Billiton Iron Ore Pty Ltd, 2013).

Flora and vegetation surveys of the proposed amended permit area have been undertaken by Astron Environmental Services (2010) and Onshore Environmental Services (2011a and 2011b). The additional permit area contains similar vegetation associations to those found within the current permit area (BHP Billiton Iron Ore Pty Ltd, 2013). Vegetation condition within the proposed amended permit area ranges from Excellent to Degraded due to the impacts of pastoral activities, the presence of weed species, fire, and clearing associated with the establishment of mining and mineral exploration infrastructure (BHP Billiton Iron Ore Pty Ltd, 2013). There are no known Threatened Ecological Communities or Priority Ecological Communities within the proposed amended permit area (GIS Database).

No threatened flora species have been recorded within the proposed amended permit area (BHP Billiton Iron Ore Pty Ltd, 2013). Twelve Priority listed flora species have been recorded in the proposed amended permit area; *Acacia bromilowiana* (Priority 4), *Aristida jerichoensis* var. *subspinulifera* (Priority 1), *Aristida lazaridis* (Priority 2), *Brachyscome* sp. Wanna Munna Flats (S. van Leeuwen 4662) (Priority 1), *Eremophila magnifica* subsp. *magnifica* (Priority 4), *Goodenia lyrata* (Priority 3), *Goodenia nuda* (Priority 4), *Indigofera* sp. Gilesii (M.E. Trudgen 15869) (Priority 3), *Oxalis* sp. Pilbara (M.E. Trudgen 12725) (Priority 2), *Rhagodia* sp. Hamersley (M. Trudgen 17794) (Priority 3), *Triodia* sp. Mt Ella (M.E. Trudgen 12739) (Priority 3) and *Vittadinia* sp. Coondewanna Flats (S. van Leeuwen 4684) (Priority 1). The locations of these species have been recorded by the proponent and no clearing will occur within 10 metres of these records. To mitigate the impact the clearing activities could have on the biodiversity of the area, a flora management condition has been placed on the permit. Five weed species were identified in the proposed amended permit area. A weed management condition has been placed on the permit to minimise the impact clearing activities could have on the biodiversity of the area.

Fauna surveys of the current permit area, additional permit area and the surrounding environment identified that fauna habitats similar to those within the proposed amended permit area occur in the surrounding environment and therefore these habitats are not confined to this area (BHP Billiton Iron Ore Pty Ltd, 2013). Consequently, the proposed amended permit area will not constitute significant habitat for fauna species within the local area (BHP Billiton Iron Ore Pty Ltd, 2013). The gorge/gully habitat found in the current permit area and additional permit area is deemed to be potentially suitable habitat for a number of conservation significant fauna species. To mitigate the impact of clearing on biodiversity values within the area, a fauna management condition has been placed on the permit. Whilst a number of conservation significant fauna species either have been recorded or could occur within the proposed amended permit area, most of these species are able to leave areas undergoing disturbance. In addition, all these species have been recorded outside of the proposed amended permit area (BHP Billiton Iron Ore Pty Ltd, 2013).

The additional permit area does not contain any permanent watercourses or wetlands (GIS Database). Consequently, no additional impact to surface water flows or quality beyond those assessed for CPS 4639/1 is expected to result from the clearing activities.

The incorporation of additional area into the permit boundary is not expected to cause environmental impacts in addition to or different from those assessed for CPS 4639/1. Based on current environmental information the assessment of the clearing principles is consistent with the assessment in the clearing permit decision report for CPS 4639/1.

Methodology

Astron Environmental Services (2010)
BHP Billiton Iron Ore Pty Ltd (2013)
Department of Natural Resources and Environment (2002)
Government of Western Australia (2013)
Keighery (1994)
Onshore Environmental Services (2011a)
Onshore Environmental Services (2011b)
Van Vreeswyk et al (2004)

GIS Database:
-Hydrography, linear properties
-Threatened ecological sites

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

There is one Native Title Claim (WC2011/006) over the area under application (GIS Database). This claim has been registered with the 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 several 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 (formerly 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.

The clearing permit amendment application was advertised on 2 September 2013 by DMP inviting submissions from the public. No submissions have been received from the public regarding this application.

Methodology GIS Database
-Aboriginal sites of significance
-Native Title Claims – Registered with the NNTT

4. References

- Astron Environmental Services (2010) Packsaddle West Vegetation and Flora Survey and Fauna Assessment. Prepared for BHP Billiton Iron Ore Pty Ltd.
- BHP Billiton Iron Ore Pty Ltd (2013) CPS 4639/1 Hill 65 Native Vegetation Clearing Permit. Application to amend CPS 4639/1.
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Onshore Environmental Services (2011a) Level 2 Flora and Vegetation Survey, Level 1 Fauna Assessment Camp Hill Exploration Leases. Prepared for BHP Billiton Iron Ore Pty Ltd.
- Onshore Environmental Services (2011b) Flora and vegetation survey, Area C and surrounds. Prepared for BHP Billiton Iron Ore Pty Ltd.
- Van Vreeswyk, A.M.E.; Payne, A.L.; Leighton, K.A.; Hennig, P. (2004) Technical Bulletin 92: An inventory and condition survey of the Pilbara region, 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.