



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4249/5
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, Special Lease for Mining Operations 3116/5661 (I 123405L), Lot 44 on Deposited Plan 193616
Local Government Area: Shire of East Pilbara
Colloquial name: Shay Gap Aerodrome Expansion

1.4. Application

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|--------------------|-----------|--------------------|---|
| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
| 21 | | Mechanical Removal | Upgrade of airstrip and installation of associated infrastructure |

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 6 August 2012

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).

117: Hummock grasslands, grass steppe; soft spinifex.

An Onshore Environmental botanist conducted a flora and vegetation survey of the application area in September 2010. Vegetation mapping was based on a variety of topographic, vegetation and land system maps, ground truthing and the results of the field survey (Onshore Environmental, 2010).

Eight vegetation associations were described and these were classified into five broad floristic formations:

1. **Acacia low open heath (regrowth):** Low open heath of *Acacia tumida* var. *pilbarensis* (regrowth), *Bonamia rosea* and *Senna notabilis* over very open tussock grassland of *Aristida holathera* and *Chrysopogon fallax*;
- 2a. **Acacia low scattered shrubs:** Low scattered shrubs of *Acacia bivenosa* over open hummock grassland of *Triodia epactia*;
- 2b. **Acacia low scattered shrubs:** Low scattered shrubs of *Bonamia rosea* and *Acacia tumida* var. *pilbarensis* over scattered tussock grasses of *Aristida holathera*, *Aristida inaequiglumis* and *Eriachne aristidea* over scattered hummock grasses of *Triodia epactia*;
3. **Triodia closed hummock grassland:** Closed hummock grassland of *Triodia epactia* over scattered climbers of *Cassytha capillaris*;
- 4a. **Triodia hummock grassland:** Hummock grassland of *Triodia epactia* with low shrubland of *Acacia hilliana* over scattered climbers of *Cassytha capillaris*;
- 4b. **Triodia hummock grassland:** Hummock grassland of *Triodia epactia* with low shrubland of *Acacia tumida* var. *pilbarensis*, *Acacia ancistrocarpa* and *Bonamia rosea* with low open woodland of *Corymbia zygomorpha* and *Erythrophleum chlorostachys*;
- 4c. **Triodia hummock grassland:** Hummock grassland of *Triodia epactia* with low open shrubland of *Acacia tumida* var. *pilbarensis*, *Acacia ancistrocarpa* and *Bonamia rosea* with scattered trees of *Corymbia zygomorpha*; and
5. **Tracks:** No vegetation.

Clearing Description BHP Billiton Iron Ore Pty Ltd (BHPBIO) has applied to clear up to 21 hectares of native vegetation within an application area of 163.5 hectares for the purpose of upgrading an airstrip and installation of associated infrastructure. Clearing is to allow for the extending, modifying and sealing of the existing gravel airstrip, and providing terminal facilities to meet security requirements and industry best practice. The Shay Gap Aerodrome

services BHPBIO's Goldsworthy mining operations and is located approximately 160 kilometres east of Port Hedland.

Vegetation will be cleared using earthmoving equipment. The vegetation and topsoil will be stockpiled and used in rehabilitation activities.

Vegetation Condition

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

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

Comment

The vegetation condition was assessed by a botanist from Onshore Environmental (2010).

Clearing permit CPS 4249/1 was granted by the Department of Mines and Petroleum on 21 April 2011 and was valid from 14 May 2011 to 31 May 2016. The clearing permit authorised the clearing of 20 hectares of native vegetation. An application to amend the permit was received by the Department of Mines and Petroleum on 10 June 2011. The application requested that the annual reporting date be changed from 1 September to 1 October. Additionally, the application requested a change in the definition for 'local provenance' to extend the distance from which vegetative seeds and propagation materials can be collected from within 50 kilometres to within 100 kilometres of the permit area.

An application to amend clearing permit CPS 4249/2 was received by the Department of Mines and Petroleum on 19 April 2012. The application requested a change to the boundary of the clearing permit and an increase in the area approved for clearing from 20 to 21 hectares.

A further application to amend clearing permit CPS 4249/4 was received by the Department of Mines and Petroleum on 17 July 2012. The application requested a change to the boundary of the clearing permit from 71.6 hectares to 163.5 hectares. There was no change to the area approved for clearing (21 hectares).

3. Assessment of application against clearing principles

Comments

BHP Billiton Iron Ore Pty Ltd has applied to increase the boundary of the clearing permit. A review of the proposed increased footprint identified additional impacts to one potential Mulgara burrow (*Dasyercus cristicuada* or *Dasyercus blythi*). Onshore Environmental (2010) identified this burrow to be considerably old, decayed and unused and no active burrows were recorded within the survey area (Onshore Environmental, 2010). It is therefore unlikely that the amended application area represents a significant habitat for fauna. In addition BHP Billiton Iron Ore Pty Ltd (2012) have identified that no clearing will occur within 10 metres of the unused burrow.

The environmental impacts of this proposal have been reviewed and there are no significant additional environmental impacts associated with this amendment (GIS Database; Onshore Environmental, 2010; BHP Billiton Iron Ore Pty Ltd, 2012). Therefore the assessment against the clearing principles has not changed and can be found in the Clearing Permit Decision Report CPS 4249/2.

Methodology

- BHP Billiton Iron Ore Pty Ltd (2012)
- Onshore Environmental (2010)
- Keighery (1994)
- GIS Database:
 - DEC Tenure
 - Evaporation Isopleths
 - Groundwater Salinity, Statewide
 - Hydrography, linear
 - IBRA WA (Regions - Sub Regions)
 - Pre-European Vegetation
 - Public Drinking Water Source Areas (PDWSAs)
 - Rainfall, mean Annual
 - Rangeland Land System Mapping
 - Rivers
 - Threatened Ecological Sites Buffered
 - Threatened and Priority Flora

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

Comments

There is one Native Title Claim (WC99/8) 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 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 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.

The clearing permit amendment was advertised on 13 August 2012 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received to the proposed amendment.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Registered with the NNTT

4. References

- BHP Billiton Iron Ore Pty Ltd (2012) - Supporting Information for clearing permit amendment application, Shay Gap Aerodrome Expansion, 16 July 2012.
- 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 (2010) Level 2 Flora and Vegetation Survey and Level 1 Fauna Survey, Shay Gap Aerodrome, Yarrie Area A, Yarrie Area B. Report Prepared by Onshore Environmental and Biologic Environmental Survey, November 2010.

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.

