



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2296/3
Permit type: Purpose

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, Mineral Lease 244 SA (AML 70/244)
Local Government Area: Shire of East Pilbara
Colloquial name: Mesa Gap Exploration Project

1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|--|
| 152 | | Mechanical Removal | Mineral Exploration, Hydrological and Geotechnical Investigations, Water Pipelines, Supporting Infrastructure and Associated Activities. |

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 22 October 2015

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description The vegetation of the permit area is broadly mapped as the following Beard vegetation associations:

29: Sparse low woodland; mulga, discontinuous in scattered groups;
82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*; and
216: Low woodland; mulga (with spinifex) on rises (GIS Database).

GHD Pty Ltd (GHD) conducted a flora survey of the permit area, in September-October 2007 (GHD, 2007).

The following vegetation types were identified within the permit area, broadly associated with topographic features (GHD, 2007):

1. Rocky slopes: Found on the rocky southern hills of the survey area.

1a: Hummock grassland on top of low rocky hills: *Triodia basedowii*, with scattered *Acacia adoxa*, *Acacia hilliana*, with isolated emergent *Acacia bivenosa*, *Eucalyptus leucophloia*.

1b: Hummock grasslands with scattered low shrubs and isolated tall shrubs on slopes of low rocky hills: *Triodia basedowii*, with *Acacia hilliana*, *Acacia adoxa*, *Gompholobium polyzygum*, with scattered *Grevillea wickhamii*, *Acacia bivenosa*, *Acacia inaequilatera*, *Hakea lorea*, *Hakea chordophylla*. *Goodenia* sp. Sandy Creek occurs in disturbed areas. *Triodia pungens* occurs with *Triodia basedowii* in deeper soils at the base of low rocky hills.

1c: Hummock grasslands with scattered low shrubs and isolated tall shrubs on outcrops of low rocky hills: *Triodia basedowii*, with scattered *Acacia hilliana*, *Acacia adoxa*, *Ptilotus obovatus*, *Eremophila latrobei*, *Senna* species, *Tribulus platypterus*, with mixed bunch grasses dominated by *Aristida* species, and isolated emergent *Eucalyptus leucophloia*.

2. Drainage Lines

2a: Mixed *Acacia* scrubland over mixed bunch and hummock grasses with scattered emergent tree species: *Acacia monticola*, *Acacia ancistrocarpa*, *Acacia pachyacra*, *Acacia coriacea*, *Santalum lanceolatum*, *Petalostylis labicheoides*, *Gossypium robinsonii*, with scattered emergent *Corymbia hamersleyana* over *Dodonaea coriacea*, *Senna* species, *Triodia pungens*, *Cymbopogon* sp., etc.

2b: Mulga Woodlands on major drainage lines (recently burnt and lacking in understorey species): *Acacia aneura* (two variants), *Acacia coriacea*, *Gossypium robinsonii* over bunch grasses dominated by *Cymbopogon*, *Themeda triandra*, *Eragrostis tenellula*, *Eulalia brownii*, *Aristida* sp, with *Pterocaulon*, *Polycarpaea*, *Sida* species.

3. Broad Valley Plains: Very open tree steppe, over scattered shrubs with mixed bunch and hummock grasslands: *Eucalyptus leucophloia*, *Eucalyptus gamophylla*, *Corymbia deserticola* with scattered *Acacia pruinocarpa*, *Acacia aneura*, isolated *Grevillea pyramidalis* over *Acacia ancistrocarpa*, *Acacia pachyacra*, *Eremophila fraseri*, *Solanum*, *Sida* species, *Senna* species, over mixed hummock and bunch grasslands dominated by *Triodia pungens*, *Aristida* species, *Eragrostis* species, with mixed herbs, including *Goodenia* sp.

Sandy Creek. This vegetation type is considered to be the most variable, and the most diverse.

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| Clearing Description | Mesa Gap Exploration Project. BHP Billiton Iron Ore Pty Ltd (BHP Billiton) has applied to clear up to 152 hectares of native vegetation within a total application area of approximately 2,709 hectares, for the purposes of the Mesa Gap exploration drilling project. The project area is roughly rectangular in shape, approximately 13 kilometres long and 2 kilometres wide. The western end of the project area is located approximately 27 kilometres east of Newman, within the Shire of East Pilbara. |
| Vegetation Condition | Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994); to Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994). |
| Comment | The vegetation condition was derived from a vegetation survey conducted by GHD Pty Ltd (2007). Initial clearing will be for approximately 88 drill pads, and associated sumps and access tracks. Additional drilling may be undertaken subsequently, dependant upon the initial results. Each drill pad will be approximately 20 metres x 20 metres, each sump will be approximately 5 metres x 2 metres x 1 metre deep, and access tracks will be approximately 4 metres wide (BHP Billiton, 2007). Existing tracks and other previously disturbed areas will be utilised wherever possible. Where new tracks are required, they will be established using raised blade clearing techniques wherever practicable (BHP Billiton, 2008). Drill pads and sumps will be mechanically cleared using earth moving equipment with a lowered blade. All topsoil and vegetation will be stockpiled for later use in rehabilitation. All drill pads and sumps will be rehabilitated within twelve months. Clearing permit CPS 2296/1 was granted by the Department of Mines and Petroleum on 12 June 2008 and authorised the clearing of 152 hectares within a boundary of 2,709 hectares. This permit was amended on 28 March 2013 to extend the duration of the permit to 30 June 2028, amend the annual reporting date and add hydrological investigations, geotechnical investigations, supporting infrastructure and associated activities as purposes of the clearing. BHP Billiton has applied to amend CPS 2296/2 to add water pipelines to the purposes of clearing and extend the duration of the permit to 30 November 2028. |

3. Assessment of application against clearing principles

Comments

BHP Billiton Iron Ore Pty Ltd has applied to amend the permit to include water pipelines as a purpose for clearing and extend the duration of the permit by an additional five months to 30 November 2028.

The proposed amendment is unlikely to result in any change to the environmental impacts of the proposed clearing. The assessment against the clearing principles remains consistent with the assessment contained in decision report CPS 2296/1.

Methodology

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

Comments

There is one native title claim over the area under application: WC2005/006 (Department of Aboriginal Affairs, 2015). 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*.

According to available databases, there are five 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.

Methodology Department of Aboriginal Affairs (2015)

4. References

- BHP Billiton (2007) Exploration Environmental Management Plan, Revision 1. BHP Billiton Iron Ore Pty Ltd, Western Australia.
BHP Billiton (2008) Mesa Gap. Purpose Permit Vegetation Clearing Permit Application. Supporting Documentation, Revision 1. BHP Billiton Iron Ore Pty Ltd, Western Australia.
Department of Aboriginal Affairs (2015) Aboriginal Heritage Inquiry System. Accessed on 14 October 2015.
GHD (2007) Mesa Gap Flora and Fauna Survey: Mesa Gap Preliminary Assessment Outcomes. GHD Pty Ltd, Western

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 | <i>Environmental Protection Act 1986</i> , Western Australia |
| EPBC Act | <i>Environment Protection and Biodiversity Conservation Act 1999</i> (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 | <i>Rights in Water and Irrigation Act 1914</i> , Western Australia |
| s.17 | Section 17 of the <i>Environment Protection Act 1986</i> , 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 *Calyptorhynchus 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.