



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2296/4

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, Hauls Roads and Associated Activities.

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 17 November 2016

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.

Clearing Description	Mesa Gap Exploration Project. BHP Billiton Iron Ore Pty Ltd (BHP Billiton) proposes to clear up to 152 hectares of native vegetation within a total boundary of approximately 2,709 hectares for the purposes of mineral exploration, hydrological and geotechnical investigations, water pipelines, supporting infrastructure, haul roads and associated activities. The project 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. CPS 2296/2 was amended on 10 September 2015 to add water pipelines to the purposes of clearing and extend the duration of the permit to 30 November 2028. An application to amend CPS 2296/3 was received on 27 September 2016 to include haul roads in the purpose of the clearing permit.

3. Assessment of application against clearing principles

Comments

BHP Billiton Iron Ore Pty Ltd has applied to amend the permit to include haul roads as a purpose for clearing.

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.

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

Comments

There is one native title claim (WC2005/006) over the area under application (Department of Aboriginal Affairs, 2016). 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 (2016)

4. References

- BHP Billiton (2006) Exploration Environmental Management Plan, Revision 1. BHP Billiton Iron Ore Pty Ltd, Western Australia, 2006.
- BHP Billiton (2008) Mesa Gap. Purpose Permit Vegetation Clearing Permit Application. Supporting Documentation, Revision 1. BHP Billiton Iron Ore Pty Ltd, Western Australia, 2008.
- Department of Aboriginal Affairs (2016) Aboriginal Heritage Enquiry System. Government of Western Australia, <http://maps.dia.wa.gov.au/AHIS2/>. (Accessed 7 November 2016).

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)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
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
TEC	Threatened Ecological Community

Definitions:

{DPaW (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia):-

T	Threatened species: Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora). Threatened fauna is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act. Threatened flora is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the Wildlife Conservation Act. The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.
CR	Critically endangered species Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
EN	Endangered species Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
VU	Vulnerable species Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

- EX Presumed extinct species**
Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.
- IA Migratory birds protected under an international agreement**
Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- CD Conservation dependent fauna**
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- OS Other specially protected fauna**
Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P Priority species**
Species which are poorly known; or
Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.
- P1 Priority One - Poorly-known species:**
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
- P2 Priority Two - Poorly-known species:**
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
- P3 Priority Three - Poorly-known species:**
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations 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 locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
- 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 are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

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.