



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4630/2
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 East Pilbara
Colloquial name: South Flank Exploration Drilling Program

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
380		Mechanical Removal	Mineral Exploration, Hydrological Investigations and Supporting Infrastructure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 19 May 2016

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 application area:

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

Four flora and vegetation surveys were conducted by botanical consultants between 2007 and 2010 that cover the entire application area and some of the surrounding area (BHPBIO, 2011). ENV (2008b, 2010) and Onshore (2010, 2011) respectively mapped 29, 14, 14 and 34 vegetation associations over sections of the application area during their surveys. BHPBIO (2011) subsequently combined the surveys to create a composite vegetation association map of the application area. The vegetation associations are listed below along with the broad floristic formation they have been categorised into (BHPBIO, 2011).

Hummock Grasslands

Triodia Hummock Grassland
Triodia Open Hummock Grassland

Tussock Grasslands

Eriachne Tussock Grassland

Shrublands

Acacia High Open Shrubland
Acacia Low Open Shrubland
Acacia Open Scrub
Petalostylis High Shrubland
Petalostylis Open Scrub
Eremophila Shrubland

Woodlands

Acacia Low Closed Woodland
Acacia Low Open Forest
Acacia Low Open Woodland
Acacia Low Woodland
Callitris Low Open Forest
Corymbia Low Open Woodland
Corymbia Low Woodland
Corymbia Open Woodland

Eucalyptus Low Open Woodland
Eucalyptus Low Woodland
Eucalyptus Open Mallee
Eucalyptus Woodland

Completely Degraded

Completely Degraded

Clearing Description	South Flank Exploration Drilling Program BHP Billiton Iron Ore Pty Ltd (BHP Billiton Iron Ore) proposes to clear up to 380 hectares of native vegetation within a total boundary of approximately 11,261.61 hectares for the purposes of mineral exploration, hydrological investigations and supporting infrastructure. The application area is at South Flank, located approximately 80 kilometres north-east of Newman, in the Shire of East Pilbara.
Vegetation Condition	Pristine: No obvious signs of disturbance (Keighery, 1994); To Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).
Comment	CPS 4630/1 was granted by the Department of Mines and Petroleum on 15 December 2011 and authorised the clearing of 280 hectares within a boundary of approximately 12,161 hectares. BHP Billiton Iron Ore has applied to increase the amount of clearing to a total of 380 hectares, decrease the permit boundary and extend the permit duration to 30 November 2029, with no clearing to be undertaken after 30 November 2024.

3. Assessment of application against clearing principles

Comments

BHP Billiton Iron Ore has applied to increase the amount of clearing authorised by 100 hectares to a total of 380 hectares and amend the permit expiry date to 30 November 2029, with no clearing to be undertaken after 30 November 2024. The permit boundary has been reduced by 891.39 hectares to 11,269.61 hectares. The entire permit boundary was assessed in the original clearing permit application CPS 4630/1.

The western boundary of the original application was directly adjacent to, and within the buffer of, the Priority Ecological Community (PEC) 'Coolibah-lignum flats: *Eucalyptus victrix* over *Muehlenbeckia* community' (BHP, 2016). A condition was placed on CPS 4630/1 that restricted the clearing of this PEC. The permit boundary has now been amended to remove this PEC from the application area. The restricted clearing condition of the clearing permit has been removed to reflect this.

No significant flora species listed under the *Environmental Protection and Biodiversity Act 1999* have been identified within the amendment application area BHP (2016). The flora species *Lepidium catapycnon* has previously been recorded within the application area (BHP, 2016). This species has recently been removed from the Threatened flora species list, and is now Priority 4. No other Threatened flora have been recorded within the application area and based on habitat present are not likely to be found within the permit area. The flora management condition has been amended to reflect this.

Since the original application, there have been additional fauna surveys over the amendment application area which have resulted in a number of new habitat types being identified (BHP, 2016). A total of 11 habitat types have now been identified across the permit area (BHP, 2016):

- Crest/Slope;
- Drainage Area;
- Gilgai;
- Gorge / Gully;
- Hardpan;
- Major Drainage Line;
- Minor Drainage Line;
- Mulga;
- Sand Plain; and
- Stony Plain.

The gorge / gully habitat type is considered to be of high conservation value as it provides the greatest microhabitat complexity and is likely to support the greatest diversity of fauna (ENV, 2008a; BHPBIO, 2011). Microhabitats include caves, rock crevices, leaf litter and logs (ENV, 2008a). This habitat type provides refuge sites for various conservation significant fauna species and represents potential habitat for the Pilbara Olive Python (*Liasis olivaceus barroni*), Pilbara Orange Leaf-nosed Bat (*Rhinonictes aurantius*), Ghost Bat (*Macroderma gigas*), Northern Quoll (*Dasyurus hallucatus*) and Gane's Blindsnake (*Ramphotyphlops ganei*)

(BHPBIO, 2011). Potential bat roosting locations in the form of large caves are present in the application area and the gorge/gully habitat provides bat foraging habitat (ENV, 2008a).

Due to the additional surveys undertaken over the application area, there have been additional areas identified as gorge / gully habitat, as well as additional bat caves. As part of the ongoing drilling program at South Flank, BHP (2016) has identified that:

1. Some previous minor disturbance has occurred within areas that have now been mapped as gorge / gully habitat;
2. Further disturbance for drilling and rehabilitation activities will be required within the previously disturbed areas that have been mapped as gorge / gully habitat;
3. Some disturbance has occurred within 50 metres of four bat caves. Three of these caves have been identified as night roosts and the last as a potential day roost. No disturbance has occurred within 25 metres of these caves.

These disturbed areas have been included in the permit area to ensure that rehabilitation activities can be undertaken at these locations (BHP, 2016). The gorge / gully habitat that does not have prior disturbance has been excised from the permit area (BHP 2016; GIS Database). The fauna management condition has been removed from the clearing permit to reflect the above.

The amendment to increase clearing from 280 hectares to 380 hectares within a boundary of 11,269.61 hectares is not likely to result in any significant 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 4630/1.

Methodology BHPBIO (2011)
BHP (2016)
ENV (2008a)

GIS Database:
- Imagery

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

Comments

There are three Native Title Claims (Wc2010/16; WC2011/06; WC2013/03) over the area under application (DAA, 2016). These claims have 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 numerous registered Aboriginal Sites of Significance in the vicinity of 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.

The clearing permit application was advertised on 11 April 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology DAA (2016)

GIS Database:
- Aboriginal Sites of Significance

4. References

- DAA (2016) Aboriginal Heritage Inquiry System, Government of Western Australia, Department of Aboriginal Affairs, Perth, <<http://maps.dia.wa.gov.au/AHIS2/>> (accessed 9 May 2016).
- BHPBIO (2011) South Flank Exploration Drilling Program Supporting Documentation for Vegetation Clearing Permit Application. Report Prepared by BHP Billiton Iron Ore, September 2011.
- BHP (2016) Amendment Application for the South Flank Exploration VCP CPS 4630/1, BHP Billiton Iron Ore Pty Ltd, Western Australia, March 2016.
- ENV (2008a) Area C South Flank Deposit Fauna Assessment. Unpublished Report Prepared by ENV Australia Pty Ltd for BHP Billiton Iron Ore Pty Ltd, March 2008.
- ENV (2008b) Southern Flank Exploration Lease Flora and Vegetation Assessment. Unpublished Report Prepared by ENV Australia Pty Ltd for BHP Billiton Iron Ore Pty Ltd, March 2008.
- 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
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
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.