Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4468/2
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 Newman) Agreement Act 1964,* Mineral Lease 244SA (AML 70/244)
Local Government Area: Shire of East Pilbara
Colloquial name: Jinidi Exploration Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
417.45		Mechanical Removal	Mineral Exploration and Associated activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 29 July 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 assocations have been mapped within the application area (GIS Database):

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

A two phase flora and vegetation survey was conducted over the application area by Ecologia in Spring 2005 and Autumn 2006 with ENV undertaking an additional survey in March 2008 (ENV, 2010). From these surveys ENV (2010) identified the following 14 vegetation associations as occuring in the application area:

1a: Open Hummock Grassland of *Triodia pungens* and *Triodia longiceps* with Low Open Woodland of *Eucalyptus victrix*, *Eucalyptus xerothermica* and *Eucalyptus camaldulensis* subsp. *refulgens* with High Shrubland of *Acacia aneura*, *Acacia pyrifolia* and *Petalostylis labicheoides* on alluvial red-brown clay loam on floodplains / drainage lines;

1b: Hummock Grassland of *Triodia wiseana* and *Triodia pungens* with Shrubland of *Petalostylis labicheoides*, *Rulingia luteiflora* and mixed *Acacia* species with Low Open Woodland of *Eucalyptus xerothermica*, *Corymbia hamersleyana* and *Eucalyptus gamophylla* (Mallee) on red-brown alluvial clay loam on floodplains;

1c: Hummock Grassland of *Triodia wiseana* and *Triodia pungens* with Shrubland of *Petalostylis labicheoides*, *Acacia aneura* and *Acacia pruinocarpa* with Low Open Woodland of Eucalyptus *xerothermica*, *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* on red-brown loam on drainage lines / floodplains;

1d: Open Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835), *Triodia wiseana* and *Triodia pungens* with Shrubland of *Petalostylis labicheoides*, *Acacia bivenosa* and *Rulingia luteiflora* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* on red-brown loam on drainage levees;

1e: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835), *Triodia wiseana* and *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana*, *Eucalyptus gamophylla* (mallee) and *Corymbia deserticola* subsp. *deserticola* (mallee) with Shrubland of *Acacia bivenosa*, *Acacia inaequilatera* and *Acacia ancistrocarpa* on red-brown loam on footslopes;

1f: Open Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835), *Triodia wiseana* and *Triodia pungens* with Low Open Shrubland of *Gompholobium karijini*, *Acacia arida* and *Acacia hilliana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* on red-brown loam on undulating low hills;

1g: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835), *Triodia pungens* and *Triodia*

wiseana with Low Open Shrubland of *Acacia hilliana*, *Gompholobium karijini and Acacia adoxa var. adoxa with Low Open Woodland of Eucalyptus leucophloia subsp. leucophloia and Corymbia hamersleyana* on red-brown loam on hills;

1h: Open Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia pungens* with Open Shrubland of *Acacia arida*, *Acacia hilliana* and *Acacia adoxa* var. *adoxa* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* on red-brown loam on undulating low hills;

1i: Open Hummock Grassland of *Triodia wiseana*, *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia pungens* with Open Shrubland of *Acacia bivenosa*, *Acacia pyrifolia* and *Acacia pruinocarpa* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* on light brown loam on undulating calcrete plains;

1j: Very Open Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835), *Triodia wiseana* and *Triodia angusta* with Open Shrubland of *Acacia bivenosa* and *Rulingia lutefolia* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *Leucophloia, Corymbia hamersleyana* and *Eucalyptus socialis* subsp. *eucentrica* (mallee) on red-brown loam on calcrete drainage lines;

2a: High Shrubland of *Acacia tumida* var. *pilbarensis*, *Petalostylis labicheoides* and *Rulingia luteiflora* with Open hummock Grassland of *Triodia wiseana* and *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* on red-brown loam on minor drainage lines;

2b: High Shrubland of *Acacia aneura* var. *intermedia*, *Acacia aneura* var. *pilbarana* and *Acacia catenulata* subsp. *occidentalis* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* with Very Open Hummock Grassland of *Triodia pungens* and *Triodia wiseana* on red-brown clay loam on hillcrests and breakaways;

3a: Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* with Low Open Shrubland of *Senna venusta*, *Scaevola parvifolia* subsp. *pilbarae* and *Ptilotus obovatus* with Very Open Tussock Grassland of *Aristida holathera* var. *latifolia* and *Aristida holathera* var. *holathera* on red-brown loam on lower footslopes; and

3b: Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia ferriticola* with Open Shrubland of *Acacia aneura*, *Acacia pyrifolia* and *Rulingia luteifolia* with Very Open Hummock Grassland of *Triodia pungens* and *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) on red-brown loam on gorges/ steep gullies.

Clearing Description

Jinidi Exploration Project.
BHP Billiton Iron Ore Pty Ltd (BHP Billiton Iron Ore) proposes to clear up to 417.45 hectares of native vegetation within a boundary of approximately 12,866 hectares, for the purpose of mineral exploration and associated activities. The project is located approximately 53 kilometres northwest of Newman, in the Shire of East Pilbara.

Vegetation Condition

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

Comment

Clearing permit CPS 4468/1 was granted by the Department of Mines and Petroleum on 18 August 2011 and authorised the clearing of 417.45 hectares of native vegetation within a boundary of approximately 12,866 hectares, for the purpose of mineral exploration. The permit was valid from 10 September 2011 to 31 July 2016.

On 15 June 2016, the Permit Holder applied to amend CPS 4468/1 to remove the flora management condition, amend the annual reporting dates, and extend the permit duration to 30 November 2026. The area approved to clear and the permit outer boundary will remain unchanged.

3. Assessment of application against clearing principles

Comments

BHP Billiton Iron Ore has applied to amend the permit to remove the flora management condition, amend the annual reporting dates and extend the permit duration to 30 November 2026.

The flora management condition (Condition 5 on CPS 4468/1) restricted the clearing of native vegetation within 50 metres of Threatened flora. This permit condition had been imposed on the permit to protect *Lepidium catapycnon* which was listed as Threatened flora and was known to occur within the application area. This species is no longer listed as Threatened flora and is now classified as Priority 4 (Western Australian Herbarium, 2016). No other species of Threatened flora have been recorded within or in close proximity to the application area (BHP Billiton Iron Ore, 2016; GIS Database). Hence, this condition is no longer required on the permit.

The amendment to extend the permit duration by ten years is unlikely to result in any significant change to the environmental impacts of the proposed clearing. The size of the area approved to clear (417.45 hectares) and the outer boundaries of the permit area remain unchanged.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986.* Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision report CPS 4468/1.

Methodology BHP Billiton Iron Ore (2016)
Western Australian Herbarium (2016)

GIS Database:
- DPaW Tenure
- Hydrography, linear
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Threatened and Priority Flora
- Threatened Fauna
- Threatened and Priority Ecological Communities (TEC/PEC)

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

Comments

There is one Native Title Claim (WC2005/006) over the area under application (DAA, 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*.

There are several registered Aboriginal Sites of Significance within or within close proximity of the application area (DAA, 2016). 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, the 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 27 June 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology DAA (2016)

4. References

BHP Billiton Iron Ore (2016) CPS 4468/1 - Renewal of Native Vegetation Clearing Permit. BHP Billiton Iron Ore Pty Ltd, Western Australia, June 2016.

DAA (2016) Aboriginal Heritage Enquiry System. Department of Aboriginal Affairs. http://maps.dia.wa.gov.au/AHIS2/ (Accessed 28 July 2016).

ENV (2010) Jinayri Mining Lease Flora and Vegetation Survey. Report prepared for BHP Billiton Iron Ore Pty Ltd, by ENV Australia Pty Ltd, August 2010.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Western Australian Herbarium (2016) FloraBase - the Western Australian Flora. Department of Parks and Wildlife. https://florabase.dpaw.wa.gov.au/

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	*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
PEC	Priority Ecological Community, Western Australia
RIWI Act	*Rights in Water and Irrigation Act 1914*, 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 *Wildlife Conservation Act 1950,* 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 *Wildlife Conservation Act 1950,* 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 *Wildlife Conservation Act 1950,* 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 *Wildlife Conservation Act 1950,* 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.