



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4768/4
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: Myopic Exploration Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
290		Mechanical Removal	Mineral Exploration, Borrow Pit Excavation, Safety Bunds, Construction and Maintenance of Water Bores and Powerlines, Pipelines and Associated Activities

1.5. Decision on application

Decision on Permit Application:
Decision Date:

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 and are a useful tool to examine the vegetation extent in a regional context. Two Beard vegetation associations are located within the area proposed to be cleared. These vegetation associations are:

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

Four flora and vegetation surveys have been completed over the application area and immediate surrounds by botanists from GHD (2008), Onshore Environmental and Biological Environmental (2009), ENV (2012) and Onshore Environmental (2012). A total of 22 vegetation associations were identified within the proposed application area (BHP Billiton, 2012). The methodology used to classify vegetation associations may vary across surveys according to the classification systems used by separate consultants so each of the surveys are listed separately below.

Vegetation Associations Within the Application Area Mapped by GHD (2008)

Vegetation Type 1: Mixed Shrubs over Mixed (Hummock) Grasslands with Mixed Emergent species:

Acacia species (dominated by *Acacia bivenosa*), *Petalostylis labicheoides*, *Keraudrenia velutina* subsp. *elliptica*, *Senna artemisioides* subsp. *oligophylla* x *helmsii*, *Sida cardiophylla*, over *Triodia pungens* with *Triodia wiseana*, *Aristida inaequiglumis*, *Eragrostis eriopoda*, **Cenchrus ciliaris*, with scattered emergent *Corymbia hamersleyana*, *Codonocarpus cotinifolius*.

Vegetation Type 2: Low Open Mixed Woodlands with Mixed Shrublands over Mixed Grasses (includes

Minor Flowlines): *Eucalyptus gamophylla* over *Petalostylis labicheoides*, *Acacia bivenosa*, *Acacia ancistrocarpa*, *Acacia tenuissima*, *Acacia* species, over *Bonamia erecta*, over *Triodia pungens*, *Triodia basedowii* with *Paraneurachne muelleri* and *Aristida inaequiglumis*.

Vegetation Type 3: Open Mulga Woodland over Mixed Shrubs with Mixed Grasses: *Acacia aneura* var. *conifera*, *Acacia pruinocarpa*, *Acacia wanyu* over *Dipteracanthus australasicus*, *Bonamia erecta*, over **Bidens bipinnata*, over **Cenchrus ciliaris*, *Aristida inaequiglumis*, **Pennisetum setaceum*, *Triodia pungens*, with *Digitaria brownii*.

Vegetation Type 4: Mulga Grove over Mixed Shrublands over Mixed Grasses (Includes Mulga Grove Interzone): *Acacia aneura*, *Acacia pruinocarpa*, *Acacia xiphophylla* over *Eremophila forrestii*, over *Ptilotus* spp. over *Triodia pungens*, **Pennisetum setaceum*, **Cenchrus ciliaris*, *Aristida inaequiglumis*, with *Aristida contorta*, *Digitaria brownii*, and *Eragrostis eriopoda*.

Vegetation Type 5: Hummock Grasslands with Emergent Mixed Shrubs and Tree Species (Density of Emergent Species Variable): *Triodia* spp. (dominated by *T. wiseana*, *T. basedowii*, *T. pungens*, *T. epactia*) with *Iseilema membranaceum*, *Paraneurachne muelleri*, *Eriachne obtusa*, with low shrubland of *Acacia hilliana*, *Acacia adoxa* var. *adoxo*, *Gompholobium polyzygum*, with *Halgania gustafsenii*, *Acacia monticola*, *Corchorus lasiocarpus*, *Mirbelia viminalis*, with emergent *Eucalyptus leucophloia*, *Acacia bivenosa*, *Acacia rhodophloia*, *Grevillea wickhamii*, *Petalostylis labicheoides*, *Senna* spp. and *Acacia* spp.

Vegetation Type 6: Low Open Woodlands with Mixed Shrublands over Mixed (Hummock) Grasses (Typically Gullies and Southfacing Slopes): *Eucalyptus leucophloia* over *Acacia bivenosa*, *Petalostylis labicheoides*, *Acacia aneura*, *Acacia tenuissima*, over *Senna* spp., over *Triodia* spp. (*T. basedowii*, *T. epactia*, *T. pungens*, *T. wiseana*) with *Paraneurachne muelleri*, *Themeda triandra*.

Vegetation Type 7: Open Riparian Woodland over Mixed Shrublands over Mixed (Tussock) Grasses: *Eucalyptus camaldulensis* with *Acacia citrinoviridis* over *Acacia pyrifolia*, *Petalostylis labicheoides*, over *Tephrosia rosea* over *Triodia pungens*, **Cenchrus ciliaris*, *Cymbopogon obtectus*, *Themeda triandra*, **Pennisetum setaceum*.

Vegetation Type 8: Mixed Open Woodland over Mixed Shrubland over Mixed Grassland (Typically on Broad Floodplain): *Eucalyptus xerothermica*, *Corymbia candida*, *Corymbia hamersleyana*, with occasional *Eucalyptus gamophylla*, over *Petalostylis labicheoides*, *Acacia pachyacra*, *Acacia pyrifolia*, over *Dipteracanthus australasicus*, *Sida fibulifera*, over *Euphorbia australis* over **Cenchrus ciliaris*, *Triodia pungens*, *Themeda triandra*, *Eulalia aurea*, *Chrysopogon fallax*, *Eragrostis eriopoda*, **Pennisetum setaceum*, *Paraneurachne muelleri*, *Aristida inaequiglumis*.

Vegetation Type 9: Cleared Areas (Borrow Pits, etc): Typically cleared with scattered native and weed species, including *Acacia bivenosa*, *Petalostylis labicheoides*, *Ptilotus exaltatus*, **Cenchrus ciliaris*.

Vegetation Associations Within the Application Area Mapped by ENV (2012)

1a: Woodland of *Eucalyptus camaldulensis* subsp. *refulgens*, *Acacia citrinoviridis* and *E. victrix* over Low Scattered Shrubs of *Tephrosia rosea* over Open (to Closed) Tussock Grassland of **Cenchrus ciliaris* and *Eulalia aurea*.

1b: Open Woodland of *Eucalyptus victrix* and *Acacia citrinoviridis* over Low Open Shrubland of *Tephrosia rosea* var. *glabrior*, and *Corchorus crozophorifolius* over (Open) Tussock Grassland of **Cenchrus ciliaris* and *Themeda* sp. Mt. Barricade (M.E. Trudgen 2471).

1c: (High) shrubland of *Acacia monticola*, *Petalostylis labicheoides*, *Rulingia luteiflora* (occasionally Scattered Low Trees of *Corymbia candida* and *Eucalyptus victrix*) over Low Open Shrubland of *Tephrosia rosea* var. *glabrior*, *Scaevola spinescens* and *Senna* spp. over Open Tussock Grassland *Themeda* spp. and *Eriachne* spp.

2a: (High Open) Shrubland of *Acacia bivenosa*, *A. sibirica*, *A. tenuissima* over (Very Open) Hummock Grassland of *Triodia pungens*, *T. sp.* Shovelanna Hill (S. van Leeuwen 3835) with Scattered Low Shrubs of *Bonamia rosea*, *Scaevola parvifolia* and *Hibiscus sturtii* var. *grandiflorus*.

2b: Low (Open) Woodland of *Acacia aneura* and related species and *A. pruinocarpa* over Opens Shrubland of *Eremophila forrestii* subsp. *forrestii*, *Acacia tenuissima*, *Senna* spp. over Open Hummock Grassland of *Triodia pungens* and *T. sp.* Shovelanna Hill (S. van Leeuwen 3835).

3a: (Closed) Tussock Grassland of **Cenchrus ciliaris* (*Themeda* spp., **C. setiger*) with Scattered Low Trees to Low Open Woodland of *Acacia pruinocarpa*, *A. aneura* and *Corymbia candida* subsp. *dipsodes* and Scattered (Low) Shrubs of mixed species.

7a: (Very Open) Hummock Grassland of *Triodia pungens* and *T. sp.* Shovelanna Hill (S. van Leeuwen 3835) with Scattered to Very Open Mallee of *Eucalyptus gamophylla* and High Open Shrubland of *Acacia bivenosa* and *A. inaequilatera* with Scattered Mixed Herbs.

7b: Hummock Grassland of *Triodia brixoides* or *T. wiseana* and *T. sp.* Shovelanna Hill (S. van Leeuwen 3835) and Very Open Tussock Grassland of *Eriachne* spp. with Low Open Woodland of *Acacia aneura* (and related species), *Corymbia candida* subsp. *dipsodes*, *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia monticola*, *Senna glutinosa* subsp. *pruinosa*, *A. synchronica*.

7c: Hummock grassland of *Triodia* spp. with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Hakea chordopylla* over Low Open Shrubland of *Acacia hilliana*, *A. adoxa*, *Solanum lasiophyllum*.

Vegetation Associations Extrapolated and Mapped by Onshore Environmental (2012)

4c: Hummock Grassland of *Triodia* sp. Shovelanna Hill with Low Shrubland of *Acacia spondylophylla*, *Acacia hilliana* and *Gompholobium karjini* and Low Open Woodland of *Eucalyptus leucophloia*.

4h: Hummock Grassland of *Triodia pungens* and *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* and Open Shrubland of *Acacia bivenosa* and *Eremophila margarethae*.

5a: Tussock Grassland of *Themeda triandra*, *Chrysopogon fallax* and *Eulalia aurea* with Shrubland of *Petalostylis labicheoides* and *Acacia melliodora* and Low Open Woodland of *Eucalyptus xerothermica*.

5b: Tussock Grassland of *Themeda triandra*, *Cymbopogon ambiguus* and **Cenchrus ciliaris* with Woodland of *Eucalyptus camaldulensis*, *Eucalyptus victrix* and *Acacia citrinoviridis* and High Open Shrubland of *Acacia pyrifolia*, *Petalostylis labicheoides* and *Acacia melliodora*.

6a: Open Tussock Grassland of *Themeda triandra*, *Eulalia aurea* and *Paraneurachne muelleri* and Open Hummock Grassland of *Triodia pungens* with Open Shrubland of *Acacia pachyacra*, *Acacia bivenosa* and *Petalostylis labicheoides*.

*denotes weed species

Clearing Description

Myopic Exploration Project
BHP Billiton Iron Ore Pty Ltd (here after referred to as BHP Billiton) have applied to clear 290 hectares within a 3,127 hectare purpose permit boundary as part of the Myopic exploration project. The project will include clearing for the installation of drill pads, sumps, borrow pits, safety bunds, water bores and pipelines and vehicle tracks.

The Myopic application area is located between 3-11 kilometres north-east of the Newman townsite.

Vegetation Condition

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

To:

Pristine: No obvious signs of disturbance (Keighery, 1994).

Comment

The vegetation condition was assessed by botanists from GHD (2008) and ENV (2012).

There are a number of vehicle tracks which intersect the application area. The majority of vegetation within the application area is intact, with the main disturbance resulting from mining activities and cattle grazing. There is some further fragmentation from roads and railways which intersect the application area (GHD, 2008).

Clearing permit CPS 4768/1 was granted on 5 January 2012 and authorised the clearing of 290 hectares of

native vegetation. An application for an amendment to clearing permit CPS 4768/1 was submitted by BHP Billiton on 28 May 2012 to amend the purpose of the permit to include the construction and maintenance of powerlines. Clearing permit CPS 4768/2 was granted on 5 July 2012.

BHP Billiton applied for an amendment to clearing permit CPS 4768/2 on 7 September 2012 to increase the clearing permit boundary to include two additional areas for the installation of water supply bores and pipelines for the Newman Water Treatment Plant. The amount of clearing authorised remained the same. There were no significant additional environmental impacts identified as a result of the amendment. Clearing Permit CPS 4768/3 was granted on 1 November 2012.

BHP Billiton applied for an amendment to clearing permit CPS 4768/3 on 17 December 2014. BHP Billiton requested to: amend the purpose of clearing to include safety bunds; amend the period in which clearing is authorised, the permit expiry date and final reporting date; and to include an additional permit condition limiting clearing in the areas cross hatched red to the purposes of power line, pipeline and creek crossing construction and maintenance.

3. Assessment of application against clearing principles

Comments **Proposal is not likely to be at variance to this Principle**

The amendment to change the purpose for which clearing may be done, adding an additional condition, and to change the reporting dates and the permit expiry date is unlikely to result in any significant change to the environmental impacts of the proposed clearing. The size of the area approved to clear (290 hectares) and the permit boundaries remain unchanged.

The assessment against the clearing Principles remains consistent with the assessment contained in decision report CPS 4768/3.

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

Comments

There is one Native Title claim (WC05/6) over the areas under application (GIS Database). This claim has been registered with the 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 a number of registered Aboriginal Sites of Significance located within the clearing permit 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, the Department of Water, and the Department of Parks and Wildlife, 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 amendment application CPS 4768/4 was advertised on 26 January 2015 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

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

4. References

- BHP Billiton (2012) Supporting Information for Amendment Application CPS 4768/3. Prepared by BHP Billiton, August 2012.
- ENV (2012) Eastern Ridge (OB23/24/25) Flora and Vegetation Assessment. Report prepared for BHP Billiton Iron Ore Pty Ltd, January 2012.
- GHD (2008) Report for Myopic Project Area, Newman, Flora and Fauna Assessment. Unpublished report for BHP Billiton Iron Ore. November 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.
- Onshore Environmental and Biological Environmental (2009) Biological Survey Myopic Exploration Leases Flora and Vegetation Assessment. Report prepared for BHP Billiton Iron.
- Onshore Environmental (2012) Vegetation Mapping of Proposed Exploration Area – Myopic Lease. Letter Prepared for BHP Billiton Iron Ore Pty Ltd, August 2012.

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.