



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit Application No.: 2788/2
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: BHP Billiton Nickel West Pty Ltd

1.3. Property details

Property: Exploration Licence 69/2201
Mining Lease 69/74
Mining Lease 69/75
Local Government Area: Shire of Ngaanyatjaraku
Colloquial name: West Musgrave Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
50		Mechanical Removal	Mineral Exploration

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 25 July 2013

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

The area applied to clear has been broadly mapped as Beard Vegetation Association 18: low woodland; mulga (*Acacia aneura*); and Beard Vegetation Association 19: low woodland; mulga between sandridges (GIS Database).

Western Botanical (2007) undertook a flora and vegetation survey of the West Musgraves project area, for an area that included the application area. The survey was conducted from the 16th to the 24th of May 2007 and included a six day field assessment (Western Botanical, 2007). Western Botanical (2007) have identified thirteen habitat units within the entire survey area:

- 1) **WABS: Wanderrie Bank Mulga Shrubland.** Scattered Mulga over perennial Wanderrie grasses including *Eragrostis eriopoda*.
- 2) **HPMS: Hardpan Mulga Shrubland.** Hardpan plains with Mulga, perennial shrubs and annual grasses and herbs.
- 3) **CPX: Discrete, small, calcrete rises within WABS, SASP or SAMA habitat units.** Vegetation is characterised by *Petalostylis cassioides* shrubs and scattered Spinifex on a stony mantle, often 1 to 1.5m above the surrounding habitat.
- 4) **SASP-C: Sandplain Spinifex Hummock Grasslands with underlying calcrete.** Extensive sand sheets supporting *Acacia ligulata*, *Acacia* species and Spinifex with calcrete outcropping and subcropping.
- 5) **SDAGS: Sand Dune Acacia - Grevillea Shrubland.** Low to moderate Aeolian red sands supporting shrublands of *Grevillea stenobotrya*, *Acacia ligulata* and *Gyrostemon ramulosus* with minor occurrence of Spinifex.
- 6) **SDAGS + Myrtaceae: Aluta maisonneuvei shrubland.** Footholds of moderate dunes supporting thickets of *Aluta maisonneuvei*, long unburnt.
- 7) **SAEC: Sandplain Acacia - Eucalypt Calcrete Shrubland.** Extensive level to gently undulating sandplains supporting, mallee, *Acacia* and Spinifex.
- 8) **MTS: Melaleuca - Acacia - Triodia Shrubland on stony calcrete plain.** *Melaleuca glomerata* shrublands on stony calcrete plains with *Acacia ligulata* and Spinifex.
- 9) **SAMS: Sandplain Mallee Spinifex.** Spinifex hummock grasslands with emergent mallees. Species of mallee may vary.
- 10) **SAWS: Sandplain Spinifex and Acacia (other than Mulga).** Extensive sand sheets supporting *Acacia* shrublands (other than *Acacia aneura*) and Spinifex hummock grasslands.
- 11) **SAMU: Sandplain Mulga Spinifex.** Sandplains supporting Mulga and Spinifex hummock grasslands.
- 12) **GRMU: Mulga groves.** Internally drained resource gaining sites supporting dense stands of Mulga and associated Sclerophyll shrubs.
- 13) **CPN: Clay pan, vegetated.** Internally drained clay pans with perennial grasses and annual herbs and

grasses.

Clearing Description

BHP Billiton Nickel West Pty Ltd (BHP Billiton) has applied to clear up to 50 hectares of native vegetation within an application area of approximately 6,286 hectares (GIS Database). The proposed clearing is located on Mining Leases 69/74, 69/75 and Exploration Licence 69/2201, approximately 75 kilometres south-east of Warburton (GIS Database).

The purpose of the proposed clearing is mineral exploration. BHP Billiton (2008) propose to clear for the construction of drill holes, drill pads and sumps, and access tracks. Vegetation clearing will be undertaken by mechanical means and the topsoil and vegetation will be stockpiled for rehabilitation purposes (BHP Billiton, 2008).

Vegetation Condition

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

Comment

The vegetation condition rating is based on photographic and vegetation description information provided by Western Botanical (2007). Western Botanical (2007) report that there is minimal weed infestation and minimal effects from camel grazing although there have been some effects from relatively recent fire. Areas that have been relatively recently burnt have shown good regeneration of annuals, perennial grasses and shrubs and resprouter trees (e.g. *Eucalyptus*, *Corymbia*, *Hakea lorea* ssp. *lorea*), however Mulga regeneration has been limited (Western Botanical, 2007).

Clearing permit CPS 2788/1 was granted by the Department of Industry and Resources on 4 December 2008 and was valid 3 January 2009 to 31 July 2013. The clearing permit authorised the clearing of up to 50 hectares of native vegetation. An application for an amendment was submitted to the Department of Mines and Petroleum on 10 June 2013 to extend the duration of the permit for an additional two years and to reduce the clearing permit boundary. The clearing permit boundary requires reduction after part of Exploration Licence 69/2201 was surrendered in April 2013 and the new clearing permit boundary reflects the amended tenement area. The amount of clearing that was approved under clearing permit CPS 2788/1 will remain unchanged.

3. Assessment of application against clearing principles

Comments

BHP Billiton Nickel West Pty Ltd has applied to extend the duration of the clearing permit by two years and reduce the clearing permit boundary from approximately 9,226 hectares to 6,286 hectares. There are no additional environmental impacts associated with this amendment. Therefore, the assessment against the clearing principles has not changed and can be found in the Clearing Permit Decision Report CPS 2788/1.

Methodology

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

Comments

There is one native title claim (WC04/003) over the area under application (GIS Database). This claim has been registered with the Native Title Tribunal on behalf of the claimant group. However, the tenement has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of that 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 is one Aboriginal Site of Significance (Site ID: 2888) 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 (formerly the Department of Environment and Conservation) 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

GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims – Determined by the Federal Court

4. References

- BHP Billiton (2008) EP Act - BHP Billiton Nickel West Pty Ltd - Clearing Permit 2788/1. BHP Billiton Nickel West Pty Ltd, Western Australia.
- 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 Botanical (2007) Flora and Vegetation Assessment, West Musgraves Tenements, Gt Victoria Desert, May 2007. Western Botanical, Western Australia.

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.

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.