



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2845/2
Permit type: Area Permit

1.2. Proponent details

Proponent's name: BHP Billiton Nickel West Pty Ltd

1.3. Property details

Property: Mining Lease 36/4
Local Government Area: Shire of Leonora
Colloquial name: Koonoonooka Sand Quarry

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 14 August 2014

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*) (Shepherd et al, 2001).

Western Botanical (2008) undertook a flora and vegetation survey of the application area during the period 19 May 2008 to the 22 May 2008. The survey area was traversed on foot, whilst comprehensively describing and mapping the vegetation present (Western Botanical, 2008). Western Botanical (2008) has identified four vegetation units within the application area:

1) Sandplain Spinifex and Myrtaceae Heath (SAMH)

This vegetation unit is characterised by *Homalocalyx thryptomenoides* that dominates the mid stratum. Occasional emergent *Acacia effusifolia*, *A. aneura*, *A. pachyacra*, *Eucalyptus youngiana*, *Grevillea eriostachya* and *Eremophila forrestii* are typical of the upper stratum over *Triodia basedowii* that dominates the lower strata. Associated species include *Enekbatus eremaeus*, *Leptosema chambersii*, *Micromyrtus flaviflora*, *Prostanthera* sp. Bullimore Sandplain, *Hakea minima* and the Priority one taxon *Euryomyrtus inflata*. This vegetation unit was typically long unburnt.

2) Sandplain Spinifex and *Eucalyptus gongylocarpa* Shrubland (SAGS)

These communities are characterised by *Eucalyptus gongylocarpa*, over a mid-stratum of *Acacia aneura* (2 forms), *A. effusifolia*, *A. jamesiana*, *A. ligulata*, *Grevillea eriostachya* and other eucalypts including *Eucalyptus leptopoda* ssp., *E. trivalvis* and *E. youngiana*. The low shrub stratum is dominated by *Triodia basedowii*. Associated species include *Acacia aneura*, *Dodonaea adenophora*, *Eremophila forrestii*, *E. latrobei*, *E. platyhamnos*, *Keraudrenia velutina*, *Micromyrtus flaviflora*, *Pittosporum angustifolia*, *Rhyncharrhena linearis*, *Scaevola spinescens*, *Senna artemisioides* ssp. *sturtii* and *S. glutinosa* ssp. *chatelainiana*. Soils in this vegetation type are typically level and fine, red silty sand.

3) Sandplain Spinifex and *Acacia effusifolia* Shrubland (SAWS)

This vegetation unit is characterised by *Acacia effusifolia* over scattered sclerophyll shrubs including *Dodonaea adenophora*, *Leptosema chambersii*, *Homalocalyx thryptomenoides* and *Senna pleurocarpa* ssp. *angustifolia*. *Triodia basedowii* dominates the lower stratum. This community is also characterised by the absence of Mulga (*Acacia aneura*) due to the more frequent fire regime in this vegetation unit.

4) Sandplain Spinifex and *Acacia effusifolia* Shrubland with Mallee (SAWS-M)

This community is similar to Vegetation Unit 3 but with the addition of emergent mallees including occasional *Eucalyptus gongylocarpa*, *E. youngiana* and *E. leptopoda* spp. *elevata*. Other species in the upper storey included *Grevillea juncifolia* and *Acacia effusifolia*. The mid strata was relatively diverse with *Acacia aneura* (twisted leaf), *Eremophila spuria*, *Acacia longispinea*, *Eremophila forrestii*, *Prostanthera* sp. Bullimore Sandplain, *Philotheca tomentella*, *Brachychiton gregorii*, *Lachnostachys* sp., *Spartothamnella teucriflora*, *Keraudrenia velutina*, *Scaevola spinescens* (narrow leaf form), *Senna artemisioides* ssp. *artemisioides* and *Psydrax attenuate*. The lower strata was dominated by *Triodia basedowii* with *Rulingia loxophylla*, *Leptosema chambersii* and *Prostanthera* sp. Bullimore Sandplain. *Paspalum basicladum* (dead grass) and *Eragrostis* sp. also present. There was also evidence of the fire ephemeral *Codonocarpus cotinifolius* that had died prior to the survey.

Clearing Description

Koonoonooka Sand Quarry.

BHP Billiton Nickel West Pty Ltd (BHP Billiton) proposes to clear up to 92.1ha of native vegetation, for the purpose of sand quarrying. The project is located approximately 18 kilometres north-east of Leinster, in the Shire of Leonora.

Vegetation Condition

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

Comment

Clearing will be done using earthmoving equipment (BHP Billiton, 2008). Topsoil, cleared vegetation and subsoil will be stockpiled for rehabilitation purposes (BHP Billiton, 2008).

The vegetation condition rating is based on a flora and vegetation survey conducted by Western Botanical in May 2008. The vegetation of the application area is reported as being in excellent condition having been long unburnt, resulting in Spinifex in a climax state community (BHP Billiton, 2008).

Clearing permit CPS 2845/1 was granted by the Department of Mines and Petroleum on 5 February 2009, and was valid from 7 March 2009 to 31 October 2014. The permit approved the clearing of 92.1 hectares of native vegetation for a sand quarrying operation.

On 23 May 2014, the permit holder applied to amend CPS 2845/1 to extend the duration of the permit by three years to 31 October 2017.

3. Assessment of application against clearing principles

Comments

The amendment to extend the permit duration by three years is unlikely to result in any significant change in the environmental impacts of the proposed clearing. The size of the area approved to clear (92.1 hectares) and the permit boundaries remain unchanged.

The assessment against the clearing principles remains consistent with the assessment in decision report CPS 2845/1.

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

Comments

There is one Native Title claim (WC2011/007) 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 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 no 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, 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.

Methodology

- GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Determined by the Federal Court
- Native Title Claims - Filed at the Federal Court
- Native Title Claims - Registered with the NNTT

4. References

- BHP Billiton (2008) EP Act - BHP Billiton Nickel West - Clearing Permit application. BHP Billiton Nickel West, 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 (2008) Flora and Vegetation of the Proposed Clearing within the Koonoonooka Sand Quarry, May 2008. Western Botanical, 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
s.17	Section 17 of the <i>Environment Protection Act 1986</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DPaW (2013) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T	Threatened species: Specially protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna or the Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora). Threatened Fauna and Flora are further recognised by the Department according to their level of threat using IUCN Red List criteria. For example Carnaby's Cockatoo <i>Calyptorhynchus latirostris</i> is specially protected under the <i>Wildlife Conservation Act 1950</i> as a threatened species with a ranking of Endangered. <u>Rankings:</u> CR: Critically Endangered - considered to be facing an extremely high risk of extinction in the wild. EN: Endangered - considered to be facing a very high risk of extinction in the wild. VU: Vulnerable - considered to be facing a high risk of extinction in the wild.
X	Presumed Extinct species: Specially protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora (which may also be referred to as Declared Rare Flora).
IA	Migratory birds protected under an international agreement: Specially protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice. Birds that are subject to an agreement between governments of Australia and Japan, China and The Republic of Korea relating to the protection of migratory birds and birds in danger of extinction.
S	Other specially protected fauna: Specially protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice.
P1	Priority One - Poorly-known species: Species that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, rail reserves and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.

- P2** **Priority Two - Poorly-known species:**
Species that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.
- P3** **Priority Three - Poorly-known species:**
Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities 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 localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.
- 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 do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.
- P5** **Priority Five - Conservation Dependent species:**
Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.