



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2836/2
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*, Special Lease for Mining Operations 3116/3687, Document I 154279 L, Lot 19 on Deposited Plan 48921, Lot 65 on Deposited Plan 48920;
Iron Ore (Mount Newman) Agreement Act 1964, Special Lease for Mining Operations 3116/4028, Lot 24 on Deposited Plan 60348, Lot 25 on Deposited Plan 60349, Lot 26 on Deposited Plan 60350, Lot 92 on Deposited Plan 60351, Lot 94 on Deposited Plan 60707, Lot 95 on Deposited Plan 60708, Lot 96 on Deposited Plans 60709

Local Government Area: Shire of East Pilbara and Town of Port Hedland
Colloquial name: Turner Camp to Spring Siding Rail Duplication Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
358		Mechanical Removal	Railway construction and maintenance and associated works

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 21 August 2014

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	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 application area (GIS Database): 93: Hummock grasslands, shrub steppe; kanji over soft Spinifex; and 619: Medium woodland, River Gum (<i>Eucalyptus camaldulensis</i>). Ecologia Environment (Ecologia) conducted a Level 1 flora and vegetation survey of the Mainline Rail Lease (80 metres wide, 60 kilometres long) between Turner Camp and Spring Siding (the application area) between 30 March and 4 April 2008. Further to this, Ecologia conducted a flora and vegetation survey over two sites where the proposed Rail Repeater Stations will be built totalling 2.25 hectares each. Repeater Stations Three and Four were surveyed on 3 April 2008 and 28 March 2008, respectively.

The field surveys involved systematic flora sampling in quadrats approximately 50 metres x 50 metres or of an equivalent area within the narrow corridor of the existing rail lease. In total 31 quadrats were sampled from Turner Camp to Spring Siding. Quadrat sites were selected on the basis of topography, and interpretation and ground truthing of aerial photographs. From these surveys the following vegetation associations were identified:

Mainline Rail Lease

Sandy/Rocky Undulating Plain

- Scattered *Corymbia hamersleyana* low trees, over sparse *Acacia trudgeniana*, *A. inaequilatera*, *A. orthocarpa* high shrubs, over mixed open *A. bivenosa*, *A. orthocarpa*, *A. ancistrocarpa* and *A. eriopoda*, sometimes with *A. colei* var. *colei* and *A. tumida* var. *tumida* medium shrubs, over sparse mixed low shrubs of *Indigofera monophylla*, *Bonamia rosea*, *Corchorus parviflorus* and *Aerva javanica* (weed), over moderately dense varying *Triodia lanigera*, *T. epactia*, *T. wiseana* and *T. secunda* hummock grass, sometimes with patches of mixed *Cenchrus ciliaris* (weed), *Aristida contorta* and *Paraneurachne muelleri* tussock grasses.
- Scattered *Corymbia hamersleyana* low trees, over scattered *Acacia trudgeniana* and *A. inaequilatera* high shrubs, over scattered medium to low shrubs of *A. bivenosa*, *A. orthocarpa* and *A. stellaticeps*, over moderately dense varying *Triodia longiceps*, *T. lanigera*, *T. angusta* and *T. epactia* hummock grasses, with

- sparse patches of *Aristida contorta*, *Cenchrus ciliaris* (weed) and *Eriachne lanata* tussock grass.
- River Bed/Bank
- Open to moderately dense *Eucalyptus camaldulensis* var. *obtusata*, *E. victrix* and *Melaleuca argentea* medium trees, over moderately dense mixed *Acacia ampliceps* and *Erythrina vespertilio* low trees, over open mixed *Acacia ampliceps*, *A. trachycarpa*, *A. colei* var. *colei*, *Melaleuca glomerata* and *M. linophylla* high to medium shrubs, over moderately dense *Cenchrus ciliaris* (weed) and open *Triodia angusta* hummock grasses, with open *Cyperus blakeanus* or *Cyperus ixiocarpus* sedges.

Minor Channel/Creepline

- Scattered *Eucalyptus camaldulensis* var. *obtusata*, *Acacia coriacea* subsp. *pendens* and *Corymbia hamersleyana* low trees, over mixed open to moderately dense *A. trachycarpa*, sometimes with *A. ampliceps*, *A. acradenia* and *A. pyriformis* high shrubs, over open *Triodia lanigera*, *T. angusta*, *T. basedowii* and *T. epactia* hummock grasses, with scattered patches of *Cenchrus ciliaris* (weed).
- Scattered *Corymbia hamersleyana* low trees, over moderately dense *Petalostylis labicheoides* and *Acacia acradenia* high to medium shrubs, over open mixed *Cenchrus ciliaris* (weed) and *Triodia epactia* and *T. angusta* hummock grasses.
- Scattered *Corymbia hamersleyana* low trees, over sparse *Acacia bivenosa* high shrubs, over moderately dense mixed *Adriana urticoides* var. *urticoides* and *Pluchea ferdinandi-muelleri* medium to low shrubs, over moderately dense *Cenchrus ciliaris* (weed), with sparse *Triodia secunda* hummock grass.
- Moderately dense *Acacia tumida* var. *tumida* and *Grevillea wickhamii* high shrubs, over open *Cajanus cinereus* medium shrubs, over sparse mixed *Aerva javanica* (weed) and *Indigofera monophylla* low shrubs, over open *Triodia epactia* hummock and open mixed tussock grasses, dominated by *Perotis rara*.

Granite Outcrop

- Moderately dense *Acacia acradenia*, *Cajanus cinereus* and *A. pyriformis* medium shrubs, over open *A. acradenia* low shrubs, over moderately dense *Triodia pungens* hummock grass, with open *Cenchrus ciliaris* (weed) and sparse *Cyperus cunninghamii* subsp. *cunninghamii* sedges.

Repeater Station Three

Granite Outcrop

- Scattered *Gossypium australe* medium shrubs, over sparse *Gossypium australe* and *Cajanus cinereus* low shrubs, over open *Ptilotus incanus* var. *incanus* very low shrubs, over isolated clumps of *Cymbopogon ambiguus* tussock and sparse *Triodia pungens* hummock grasses.

Rocky Hill Slope

- Scattered *Corymbia hamersleyana* low trees, over sparse *Grevillea wickhamii* subsp. *aprica* high, medium and low shrubs, over moderately dense *Triodia pungens* hummock grass.
- Recently Burnt: Open *Acacia inaequilatera* high shrubs, over open to moderately dense mixed low shrubs of *Corchorus laniflorus* and *Tribulus macrocarpus*, over open to moderately dense mixed *Triodia pungens* and *Triodia lanigera* hummock, with open *Aristida contorta* tussock grasses.

Rocky Plain

- Open *Corymbia hamersleyana* low trees, over sparse *Acacia eriopoda* and *A. inaequilatera* medium shrubs, over open *Senna notabilis* and *Corchorus laniflorus* low shrubs, over moderately dense *Triodia lanigera* and *Triodia pungens* hummock and sparse *Aristida contorta* tussock grasses.

Repeater Station Four

Rocky Hill Slope/Ridgetop

- Open *Acacia maitlandii* and *A. orthocarpa* high shrubs, over scattered *Grevillea wickhamii* medium shrubs, over dense *Triodia pungens* hummock, with sparse *Cymbopogon ambiguus* tussock grasses.
- Open *Eucalyptus victrix* and *Acacia coriacea* subsp. *pendens* medium trees, over open *A. trachycarpa* and *A. ancistrocarpa* high to medium shrubs, over open *Stemodia grossa* low shrubs, over open *Cyperus squarrosus* sedges, with sparse mixed *Cenchrus ciliaris* tussock and *Triodia pungens* hummock grasses.

Clearing Description

Turner Camp to Spring Siding Rail Duplication Project.
BHP Billiton Iron Ore Pty Ltd (BHP) proposes to clear up to 358 hectares of native vegetation within a total boundary of approximately 478 hectares for the purpose of railway construction and maintenance and associated works. The project is located approximately 128 kilometres south of Port Hedland, in the Shire of East Pilbara and Town of Port Hedland.

Vegetation Condition

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994);

to:

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

Comment

Associated works include replacement of an existing bridge at Coonarrie Creek, installation of communications cabling, upgrade of Rail Repeater Stations and signalling infrastructure, improvement of access roads and the establishment of borrow pits and laydown areas.

Vegetation condition was determined following a flora and vegetation survey conducted by Ecologia (2008). Factors taken into consideration when determining the vegetation condition were weeds, grazing, litter and ground disturbance (tracks and other cleared areas).

Clearing Permit CPS 2836/1 was granted by the Department of Mines and Petroleum on 12 February 2009. The clearing permit authorised the clearing of 358 hectares within a total boundary of 478 hectares. On 18 June 2014, BHP applied to extend the permit expiry date to 30 November 2024 and amend the annual reporting date to 1 October.

3. Assessment of application against clearing principles

Comments

The amendment to extend the permit duration and change the annual reporting date is unlikely to result in any additional environmental impacts. The size of the area approved to clear and the permit boundaries remain unchanged.

The assessment against the clearing principles remains consistent with the assessment in decision report CPS 2836/1.

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

Comments

There are three native title claims over the application area (GIS Database). These claims (WC14/001, WC99/016 and WC99/003) have been registered with the National Native Title Tribunal or Filed at the Federal Court on behalf of the claimant groups (GIS Database). However, the mining tenements have 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 Sites of Aboriginal 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 Sites of Aboriginal 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.

Methodology

GIS Databases:

- Aboriginal Sites of Significance
- Native Title Claims - Registered with the NNTT
- Native Title Claims - Filed at the Federal Court

4. References

Ecologia (2008) Turner Camp to Springs Siding and Rail Repeater Stations Three and Four Flora Report, consultant report prepared for BHP Billiton Iron Ore Pty Ltd.

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
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 *Wildlife Conservation Act 1950*, 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 *Calyptorhynchus latirostris* is specially protected under the *Wildlife Conservation Act 1950* as a threatened species with a ranking of Endangered.
Rankings:
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 *Wildlife Conservation Act 1950*, 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 *Wildlife Conservation Act 1950*, 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 *Wildlife Conservation Act 1950*, 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.

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.