



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6524/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Rio Tinto Exploration Pty Ltd

1.3. Property details

Property: Iron Ore (Yandicoogina) Agreement Act 1996, Mining Lease 274SA (AM 70/274)
Local Government Area: Shire of East Pilbara
Colloquial name: Yandi Tribs Drilling Program Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
219.85		Mechanical Removal	Waste Rock Storage and Associated Infrastructure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 21 May 2015

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. One Beard vegetation associations has been mapped within the application area (GIS Database):

82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*.

Clearing Description Yandi Tribs Drilling Program Project
Rio Tinto Exploration Pty Ltd proposes to clear up to 15 hectares of native vegetation within a total boundary of approximately 1056.508 hectares, for the purpose of mineral exploration and access tracks. The project is located approximately 84 kilometres north-west of Newman in the Shire East Pilbara.

Vegetation Condition Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

Comment Vegetation condition was derived from a the use of aerial imagery.

3. Assessment of application against clearing principles

Comments

The application areas are located within the Hamersley subregion of the Pilbara Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). At a broad scale, vegetation of the Hamersley subregion can be described as Mulga low woodlands over bunch grasses on fine textured soils in valley floors and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges (CALM, 2002).

The application areas do not lie within any Department of Parks and Wildlife managed lands (GIS Database). The nearest conservation area is Karijini National Park (GIS Database). It is located approximately 63 kilometres west of the application areas (GIS Database). From this distance, the proposed clearing is not likely to impact the environmental values of the conservation area.

A flora survey has previously been undertaken over part of the application areas for another project. According to available databases, one Threatened Flora species is known from the local area (10 kilometre radius). *Lepidium catapycnon* was recorded approximately 500 metres north of the southern application area (GIS Database; DPaW 2015). Beard vegetation association 82 (which is mapped as occurring over approximately 2% of the application area) is a known habitat for *Lepidium catapycnon*, however this species prefers skeletal soils on hillsides (DPaW, 2014). Given the small amount of potential available habitat impacted by the proposed clearing, impacts to Threatened flora species are unlikely. However, any potential impacts to *Lepidium catapycnon* may be managed with a flora management condition.

Several Priority listed flora species are known from the local area. Three Priority 4, and two Priority 3 listed flora species has been recorded. (DPaW, 2014). No Priority flora has been recorded within the application areas (GIS Database; DPaW, 2014).

There are no known threatened or priority ecological communities mapped as occurring within the application areas (GIS Database).

No fauna surveys have taken place within the application area, however, based on fauna records for the local area, the following species of conservation significance listed as either threatened species under the *Environment Protection and Biodiversity Conservation Act (EPBC) 1999* or protected under Western Australian legislation (*Wildlife Conservation Act 1950 (WC)*) may occur within the application area (DPaW 2015):

- Pilbara Olive Python (*Liasis olivaceus* subsp. *Barroni*)
- Fork-tailed Swift (*Apus pacificus* – Migratory);and
- Rainbow Bee-eater (*Merops ornatus* – Migratory).

The Pilbara Olive Python has been recorded approximately five kilometres from the application area (DPAW, 2015). The Pilbara Olive Python has been shown to have a home range of around 4 kilometres and prefers escarpments, gorges and water holes (DoE, 2015). Whilst the home range size would not see the Pilbara Olive Python able to seek refuge outside of the clearing envelope, extensive areas of suitable habitat occur throughout the proposed clearing areas that will remain un-impacted and impacts to this species can be minimised. Based on aerial imagery of the area, it does not appear that the application areas provides critical habitat for the Pilbara Olive Python, and a large portion of its habitat is conserved in Karijini National Park (DoE, 2015; GIS Database).

The Rainbow Bee-eater and the Fork-tailed Swift are common migrants that move southwards during summer to breed. Given that these species are widespread and are expected to be an irregular visitor to the application areas (due to its migratory nature), impacts to these species from the proposed clearing are likely to be negligible.

There is also one Priority listed fauna species, recognised by the Department of Parks and Wildlife as being of conservation significance that is known from the local area (DPaW, 2014) such as the:

- Western Pebble-mound Mouse, Ngadji (*Pseudomys chapmani* – Priority 4)

Given the small size of the proposed clearing, and that suitable habitat is known throughout the wider area and region (DPaW, 2014), impacts to this species are likely to be negligible.

There are no major watercourses within the application area; however two minor non-perennial watercourses do occur (GIS Database). While potential impacts to drainage lines are likely to be minimal, it is important to maintain natural water flow throughout the area following rain events. Potential impacts to watercourses within the application areas as a result of the proposed clearing may be minimised by the implementation of a watercourse management condition.

There is one Beard vegetation associations mapped over the area under application; Beard vegetation association 82. This vegetation association is well represented and retains at least 99% of pre-European levels of vegetation within the state and bioregion (Government of Western Australia, 2013).

Land degradation issues are unlikely given that the dominant soil type mapped over the application area (deep earthy loams) has low wind erosion and water erosion risk (Van Vreeswyk *et al.* 2004).

The application to clear 15 hectares of native vegetation for the purpose of mineral exploration and access tracks, (that will result in 73 new drill holes and drill pads) within an application area of approximately 1056.508 hectares is unlikely to have any significant environmental impacts.

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*, and the proposed clearing is not likely to be at variance to Principles (a), (b), (d), (g), (h), (i), and (j), may be at variance to Principles (c) and (f) and is not at variance to Principle (e).

Methodology CALM (2002)
DEC (2009)
DoE (2015)
DPaW (2014)
DPaW (2015)
Government of Western Australia (2013)
Keighery (1994)
Van Vreeswyk *et al.* (2004)
GIS Database:
- Clearing Regulations – Schedule One Areas
- DEC Tenure

- EPA Red Book 1976-91
- Imagery
- Groundwater Salinity
- Hydrographic Catchments – Catchments
- Hydrography, linear
- IBRA WA (Regions - Sub Regions)
- Pre-European Vegetation
- Public Drinking Water Source Areas (PDWSAs)
- RIWI Act, Groundwater Areas
- Soils, statewide
- Threatened and Priority Flora List
- Threatened Ecological Sites Buffered
- Threatened and Priority Ecological Communities Buffers
- Threatened and Priority Ecological Communities Boundaries

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

Comments

There are no native title claims over the application area (GIS Database; DAA, 2014). 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 Sites of Aboriginal Significance located in the area applied to clear (GIS Database; DAA, 2014). 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.

The clearing permit application was first advertised on 13 April 2015 by the Department of Mines and Petroleum (DMP) inviting submissions from the public. One submission was received that opposed the proposed clearing, the issue raised within the submission related to the cumulative impacts of all clearing in the local area. This issue has been addressed within the assessment when considering Principle (e).

Methodology

DAA (2015)
 GIS Database:
 - Aboriginal Sites of Significance

4. References

- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management
- DAA (2014) Aboriginal Heritage Inquiry System, Government of Western Australia, Department of Aboriginal Affairs, Perth, viewed 4 March 2015 < <http://maps.dia.wa.gov.au/AHIS2/> >.
- DoE (2015) *Liasis olivaceus barroni* in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <http://www.environment.gov.au/sprat>. Accessed Fri, 15 May 2015
- DPaW (2014) NatureMap Department of Parks and Wildlife, viewed 24 April 2015 <<http://naturemap.dec.wa.gov.au>>
- DPaW (2015) FloraBase, Department of Parks and Wildlife, viewed 24 April 2015 <<https://florabase.dpaw.wa.gov.au/>>
- Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Van Vreeswyk, A.M.E.; Payne, A.L.; Leighton, K.A.; Hennig, P. (2004) An inventory and condition survey of the Pilbara Region, Western Australia, Technical Bulletin No. 92 Department of Agriculture Western Australia, South Perth.

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.