Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6213/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Rio Tinto Exploration Pty Ltd**

1.3. Property details

Property: *Iron Ore (Mount Bruce) Agreement Act 1972*, Mineral Lease 252SA (AML 70/252)
Local Government Authority: Shire of Ashburton
Colloquial name: Mount Windell North Drilling Program

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
12		Mechanical Removal	Mineral Exploration and Associated Activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 18 September 2014

2. Background

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 useful to look at vegetation in a regional context. The following Beard vegetation associations are located within the application area (GIS Database):

18: Low woodland; mulga (*Acacia aneura*)
82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*

A survey conducted by Western Botanical identified the following 3 vegetation associations within the application area:

- **IREII**: Ironstone Hills with *Eucalyptus* and *Corymbia* over mixed *Acacia* low shrubs, over mixed *Triodia* Hummock grasses;
- **DRMS**: Drainage Channels with mixed Shrubs over *Triodia* hummock grasses; and
- **IRPEg**: Ironstone plateaux with *Eucalyptus* and *Corymbia* over mixed *Acacia* low shrubs, over mixed *Triodia* hummock grasses.

Clearing Description

Mount Windell North Drilling Program.
Rio Tinto Exploration Pty Ltd proposes to clear up to 12 hectares of native vegetation within a total boundary of approximately 88.3 hectares for the purpose of mineral exploration. The application area is located approximately 43 kilometres southeast of Wittenoom in the Shire of Ashburton.

Vegetation Condition

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

Comment

The vegetation condition was assessed by botanists from Western Botanical (2014).

3. Assessment of application against Clearing Principles

Comments

The application to clear for the purpose of mineral exploration is unlikely to have any significant environmental impacts. The vegetation within the application area has been mapped in pristine condition (Keighery, 1994; Western Botanical, 2014), however, the vegetation type is well represented. Beard vegetation associations 18 and 82 retain greater than 99% of their pre-European extent at a state level (Government of Western Australia, 2013).

A survey undertaken by Western Botanical (2014) identified 138 taxa, representing 31 families and 69 Genera. The survey identified 3 vegetation associations none of which are representative of a Threatened or Priority Ecological community (GIS Database; Western Botanical, 2014). No Threatened flora were identified during the 2014 survey.

Western Botanical (2014) identified one Priority Flora species *Eremophila magnifica* subsp. m*agnifica* (P4) within the application area. 269 individual plants were identified of which 126 are within the proposed project alignment buffer (30 metres). During the Western Botanical survey observations were also made of significant fauna habitat. Of significance during the survey were 58 mounds of the Western Pebble Mound mouse (P4) of which 46 were recorded within the proposed alignment buffer (30 metres).

Information provided by Rio Tinto (2014) has identified that the impacts to these P4 species is likely to be very low. The equipment used to clear access tracks, drill pads and camp sites is loaded with GIS data which includes the location of all Priority Flora and Western Pebble mouse mounds. This data restricts clearing of these locations, identifying the allowable ground disturbance area. The surveyed corridor for the proposed exploration activities (30 metres for access tracks and 80 metres/ 200 metres diameter for pads and camp sites) provides scope for track re-alignment and infrastructure placement to avoid impacts to significant environmental features (Rio Tinto, 2014). In addition, the habitat for these species is well represented outside of the application area and the proposed clearing is not, therefore, likely to impact upon significant habitat for these species.

The application area is located at its closest point within 30 metres of the border to the Karijini National Park (GIS Database). Given the low impact nature and small size of the disturbance associated with the proposed exploration activities there are unlikely to be any significant impacts to the National Park. However, no weed species were recorded within the survey area (Western Botanical, 2014). It is therefore important that the introduction and spread of weeds is controlled. Potential impacts due to the introduction of weed species may be minimised through the implementation of a weed management condition.

The application area intersects numerous ephemeral drainage lines and one mapped vegetation association is associated with drainage channels (Western Botanical, 2014). However, these ephemeral drainage channels are a common feature locally and throughout the Pilbara landscape and vegetation associated with ephemeral drainage lines is well represented outside of the application area.

The proposed clearing is for low impact exploration activities requiring the clearing of 12 hectares within an 88.3 hectare area. Given the small area of disturbance it is unlikely that the proposed clearing will cause any deterioration in the quality of surface or underground water or increase the incidence or intensity of flooding (GIS Database).

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 at variance to Principle (f), is not likely to be at variance to Principles (a), (b), (c), (d), (g), (h), (i), and (j) and is not at variance to Principle (e).

Methodology

Government of Western Australia (2013)
Keighery (1994)
Rio Tinto (2014)
Western Botanical (2014)
GIS Database:
- DEC Tenure
- Evaporation Isopleths
- Groundwater Salinity
- Hydrography, linear
- IBRA WA (Regions - Sub Regions)
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Rangeland Land System Mapping
- Rainfall, Mean Annual
- Threatened and Priority Flora
- Threatened Ecological Sites Buffered

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

There are no Native Title Claims over the area under application (GIS Database). 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 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, 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 advertised on 18 August 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology

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

4. References

Government of Western Australia (2013), 2013 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). 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.

Rio Tinto (2014) Email received from Jarl Anderson re Western Pebble Mound mouse and Priority Flora dated 6/09/2014.

Western Botanical (2014), Mount Lockyer Drilling Program, Level 1 Flora and Vegetation Survey prepared for Rio Tinto Exploration Pty Ltd, July 2014.

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	*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
PEC	Priority Ecological Community, Western Australia
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:

{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 usin IUCN Red List criteria. For example Carnaby's Cockatoo *Calyptorynchus 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 ha 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.