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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4343/2
Permit type: Puproose Permit

1.2. Proponent details

Proponent's name: **Robe River Mining Co Pty Ltd**

1.3. Property details

Property: *Iron Ore (Robe River) Agreement Act 1964*, Mineral Lease 248SA (AML 70/248)
Local Government Area: Shire of Ashburton
Colloquial name: Robe Valley Drilling Project

1.4. Application

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

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. Five Beard vegetation associations are located within the permit area (GIS Database):

29: Sparse low woodland; mulga, discontinuous in scattered groups;
82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*;
93: Hummock grasslands, shrub steppe; kanji over soft spinifex;
583: Hummock grasslands, sparse shrub steppe; kanji and *Acacia bivenosa* over hard spinifex *Triodia basedowii* and *T. wiseana*; and
620: Hummock grasslands, shrub steppe; snakewood over soft spinifex.

Several flora surveys have been conducted over the original permit area by Biota Environmental Sciences (2011a; 2011b). Biota Environmental Sciences reported 25 vegetation communities within the original permit boundary which are detailed in Decision Report CPS 4343/1.

A flora survey was conducted over the Mesa C area by Biota Environmental Sciences from 2 to 5 September 2014. The following three vegetation units were recorded within the additional permit boundary (Biota Environmental Sciences, 2014):

AarTw: *Acacia arida* shrubland over *Triodia wiseana* open hummock grassland;

ElAarTw: *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia arida* shrubland over *Triodia wiseana* open hummock grassland; and

ElAciTw: *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Acacia citrinoviridis* tall open shrubland over *Triodia wiseana* very open hummock grassland.

Clearing Description Robe Valley Drilling Project.
Robe River Mining Co Pty Ltd proposes to clear up to 46 hectares of native vegetation within a boundary of 1785.64 hectares for the purposes of mineral exploration. The project area is located approximately 85 kilometres east of Onslow in the Shire of Ashburton.

Vegetation Condition Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994);

To

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

Comment The vegetation condition was assessed by botanists from Biota Environmental Sciences. The vegetation conditions were described using a scale based on Trudgen (1988) and have been converted to the corresponding conditions from the Keighery (1994) scale.

Clearing permit CPS 4343/1 was granted by the Department of Mines and Petroleum on 21 July 2011 and

authorised the clearing of up to 16 hectares within an area totalling approximately 1,704 hectares. Robe River Mining Co Pty Ltd has applied to amend CPS 4343/1 to increase the clearing authorised to 46 hectares, increase the permit boundary to 1,785.64 hectares and extend the duration of the permit to 31 July 2024.

3. Assessment of application against clearing principles

Comments

Robe River Mining Co Pty Ltd has applied to increase the clearing authorised by 30 hectares, increase the clearing permit boundary by approximately 84 hectares and increase the duration of the permit to 31 July 2024.

The additional areas for this application expand the permit boundary to include the outer extent of Mesa C. There were three vegetation units mapped within the additional area (Biota Environmental Sciences, 2014). The majority of the vegetation is in 'pristine' condition (Biota Environmental Sciences, 2014). None of the vegetation communities within the additional area are considered to be a Threatened Ecological Community (Biota Environmental Sciences, 2014; GIS Database). The vegetation unit ElAarTw was identified as representing the Priority Ecological Community (PEC) '*Triodia* sp. Robe River assemblages of mesas of the West Pilbara' (Biota Environmental Sciences, 2014). The majority of this PEC recorded at Mesa C is within the additional area. Advice from DPaW (2014) is that this ocurrence of the PEC is significant and the proposed clearing may have a significant impact. Potential impacts to this PEC may be minimised by the implementation of a condition restricting the clearing to access tracks within the PEC.

The flora survey over the whole of Mesa C recorded a total of 111 flora species from 62 genera and 31 families (Biota Environmental Sciences, 2014). This is within the range expected for an area this size and is not considered to represent a high species richness (Biota Environmental Sciences, 2014). No species of Threatened flora have been recorded within the additional area (Biota Environmental Sciences, 2014; GIS Database). The Priority 3 flora species *Triodia* sp. Robe River was recorded within the additional area (Biota Environmental Sciences, 2014). There was 4,555 individuals of this species recorded from 287 locations during the flora survey over Mesa C (Biota Environmental Sciences, 2014). Almost all of the records are from the southern end of Mesa C and are closely associated with the occurrence of the PEC (Biota Environmental Sciences, 2014). Advice from DPaW (2014) indicates that the proposed clearing is unlikely to impact on the conservation of this species, however, the cumulative impacts on habitat for this species (namely the PEC) may have a significant impact. Potential impacts on this species may be minimised by the implementation of a condition restricting the clearing within the PEC to access tracks.

There were three fauna habitats identified within the additional areas; mesa plateau, rocky mesa edges and steep stony slopes, and minor rocky gullies (Biota Environmental Sciences, 2014). The majority of the additional area is comprised of the rocky mesa edges and steep stony slopes habitat. This habitat contains foraging habitat for Northern Quolls (*Dasyurus hallucatus* - Schedule 1; Endangered) and also has potential denning habitat (shallow caves and overhangs) (Biota Environmental Sciences, 2014). The shallow caves present in the mesa free faces are not suitably large enough to provide roosting habitat for Pilbara Leaf-nosed Bats (*Rhinonicteris aurantius* - Schedule 1; Vulnerable) or Ghost Bats (*Macroderma gigas* - Priority 4) (Biota Environmental Sciences, 2014). There were two mounds of the Western Pebble-mound Mouse (*Pseudomys chapmani* - Priority 4) recorded during the Mesa C survey, both of which are located within the original permit boundary (Biota Environmental Sciences, 2014). Suitable habitat for this species is well represented in the Hamersley region and the proposed clearing is not likely to have a significant impact. The rocky mesa edges and steep stony slopes habitat occupies a similar area to the PEC. Therefore, the implementation of a condition restricting clearing within the PEC will also minimise the impacts to this fauna habitat.

There are no permanent watercourses within the additional area (GIS Database). The vegetation unit ElAciTw is associated with several minor drainage lines from the mesa plateau (Biota Environmental Sciences, 2014). The groundwater quality in the additional area ranges from 500-1,000 milligrams per litre total dissolved solids (GIS Database). The proposed clearing is not likely to have a significant impact on surface or groundwater quality in the local region.

The closest conservation area is the Cane River Conservation Park which is located approximately 24 kilometres south-west of the permit boundary (GIS Database). The proposed clearing is not likely to have any impacts on conservation areas in the region.

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

Methodology

Biota Environmental Sciences (2014)
DPaW (2014)
GIS Database:
- DPaW Tenure
- Groundwater Salinity, Statewide
- Hydrography, linear
- Threatened and Priority Ecological Communities – Boundaries
- Threatened and Priority Flora

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

Comments

There is one Native Title Claim (WC99/12) over the area under application (GIS Database). This claim has been registered with the National 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*.

There are multiple registered Aboriginal Sites of Significance 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, 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 1 December 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology

GIS Database:
- Aboriginal Sites Register System

4. References

Biota (2011a) A Vegetation and Flora Survey of Mesa G. Report by Biota Environmental Sciences Pty Ltd for Rio Tinto Iron Ore, January 2011.

Biota (2011b) Baseline Flora and Vegetation Assessment of Robe Valley Mesas (Mesas B, C, D, E, F, H and I). Report by Biota Environmental Sciences Pty Ltd for Rio Tinto Iron Ore, April 2011.

Biota Environmental Sciences (2014) Mesa C Native Vegetation Clearing Permit Report. Unpublished report for Rio Tinto Pty Ltd, dated November 2014.

DPaW (2014) Advice to assessing officer from Species and Communities Branch, Department of Parks and Wildlife. Received 19 December 2014.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Trudgen, M.E. (1998) A Report on Flora and Vegetation of the Port Kennedy Area. Unpublished report prepared for Bowman Bishaw and Associates, West 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	*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 DPaW according to their level of threat using 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 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.