Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2552/4
Permit type: Purpose

1.2. Proponent details

Proponent's name: **Robe River Limited**

1.3. Property details

Property: *Iron Ore (Robe River) Agreement Act 1964* Mining Lease 248SA (AML 70/248)
Local Government Area: Shire of Ashburton
Colloquial name: Bungaroo Mineral and Hydrological Exploration

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
21		Mechanical removal	Mineral exploration

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 23 October 2014

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 at a 1:250,000 scale for the whole of Western Australia. One Beard vegetation association is located within the application area (GIS Database):

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

609: Mosaic: Hummock grasslands; open low tree steppe; bloodwood with sparse kanji shrubs over soft spinifexes / Hummock grasslands, open low tree steppe; snappy gum over *Triodia wiseana* on a lateritic crust.

Vegetation and flora surveys were carried out by Biota Environmental Sciences (Biota) in 2005 and 2006 over the Bungaroo project area, which includes the proposed amended application area (Biota, 2007). The following vegetation communities have been identified within the application area:

Drainage Areas

1. AcGOaCEcCEs - *Acacia colei* var. *ileocarpa* tall open scrub over *Gossypium australe* open shrubland over **Cenchrus ciliaris* open tussock grassland.

2. ApyGOaGpyTeTw - *Acacia pyrifolia, Gossypium australe*, *Grevillea pyramidalis* shrubland to tall shrubland over *Tephrosia rosea* var. Fortescue creeks (M.I.H. Brooker 2186) low open shrubland over *Triodia epactia, Triodia wiseana* open hummock grassland.

3. ChAtuTwTe - *Corymbia hamersleyana, Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia tumida* var. *pilbarensis, Petalostylis labicheoides* tall open scrub over *Triodia wiseana* open hummock grassland.

4. ChGpTe - *Corymbia hamersleyana* scattered low trees over *Grevillea pyramidalis* scattered tall shrubs over *Tephrosia rosea* var. Fortescue creeks (M.I.H. Brooker 2186) scattered low shrubs over *Triodia epactia* hummock grassland.

5. ElChAmoAtuTe - *Eucalyptus leucophloia* subsp. *leucophloia, Corymbia hamersleyana* low open woodland over *Acacia monticola* (*Acacia tumida* var. *pilbarensis*) tall closed scrub over *Triodia epactia* very open hummock grassland.

6. EvApyAtrTe - *Eucalyptus victrix* scattered low trees over *Acacia pyrifolia, Acacia trachycarpa* open shrubland over *Tephrosia rosea* var. *glabrior* low shrubland over *Triodia epactia* very open hummock grassland.

Minor Flowlines

7. ChAtuTwTe - *Corymbia hamersleyana* low open woodland over *Acacia tumida* var. *pilbarensis* tall open scrub over *Triodia wiseana*, *T. epactia* very open hummock grassland.

8. ApyGOaGpyTeTw - *Acacia pyrifolia*, *Gossypium australe* (Burrup form), *Grevillea pyramidalis* shrubland to tall shrubland over *Tephrosia rosea* var. *glabrior* low open shrubland over *Triodia epactia*, *T. wiseana* open hummock grassland.

Plains and Low Rises

9. AsyAscTe - *Acacia synchronicia, Acacia sclerosperma* subsp. *sclerosperma* tall shrubland to tall open scrub over *Senna artemisioides* subsp. *oligophylla* low open shrubland over *Triodia epactia* very open hummock grassland.

10. ChAbTe - *Corymbia hamersleyana* scattered low trees over *Acacia bivenosa* open shrubland over *Triodia epactia* hummock grassland.

11. ChAiApyTe - *Corymbia hamersleyana* open woodland over *Acacia inaequilatera, Acacia pyrifolia* tall open shrubland over *Triodia epactia* hummock grassland.

12. ChAiTe - *Corymbia hamersleyana* low open woodland over *Acacia inaequilatera* tall open shrubland over mixed scattered shrubs over *Triodia epactia* hummock grassland.

13. ChAiTw - *Corymbia hamersleyana* scattered low trees over *Acacia inaequilatera* scattered tall shrubs over mixed scattered shrubs over *Triodia wiseana* open hummock grassland.

14. ChAiTw/ChAiApyTe - *Corymbia hamersleyana* scattered low trees over *Acacia inaequilatera* scattered tall shrubs over mixed scattered shrubs over *Triodia wiseana* open hummock grassland/ *Corymbia hamersleyana* open woodland over *Acacia inaequilatera, Acacia pyrifolia* tall open shrubland over *Triodia epactia* hummock grassland.

15. ChAiApyTe - *Corymbia hamersleyana* open woodland over *Acacia inaequilatera*, *A. pyrifolia* tall open shrubland over *Triodia epactia* hummock grassland.

16. ChAiTw/ChAiTe - *Corymbia hamersleyana* scattered low trees over *Acacia inaequilatera* scattered tall shrubs over mixed scattered shrubs over *Triodia wiseana* open hummock grassland / *Corymbia hamersleyana* open woodland over *Acacia inaequilatera* tall open shrubland over mixed scattered shrubs over *Triodia epactia* hummock grassland.

Tall Stony Hills and Breakaways

17. AiAbApyTwTe - *Acacia inaequilatera* scattered tall shrubs over *Acacia bivenosa, Acacia pyrifolia, Indigofera monophylla* scattered shrubs to open shrubland over *Triodia wiseana, Triodia epactia* open hummock grassland.

18. AiTw - *Acacia inaequilatera* tall open shrubland over *Triodia wiseana* hummock grassland.

19. ElAiAbTw - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia inaequilatera, Acacia bivenosa* scattered tall shrubs over *Triodia wiseana* hummock grassland.

20. ElAiAprTw - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia inaequilatera, Acacia pruinocarpa* scattered tall shrubs over *Triodia wiseana* (*Triodia* sp. Robe River (M.E. Trudgen *et al*. MET 12367)) open hummock grassland.

21. ElAmaTw - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia maitlandii* open heath over *Triodia wiseana* open hummock grassland.

Clearing Description

Bungaroo Mineral and Hydrological Exploration
Robe River Pty Ltd (Robe River) proposes to clear up to 21 hectares of native vegetation within a total boundary of approximately 2307 hectares for the purpose of mineral exploration. The project is located approximately 130 kilometres east of Onslow within the Shire of Ashburton.

Vegetation Condition

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

To

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

Comment

Clearing permit CPS 2552/1 was granted by the Department of Industry and Resources (now the Department of Mines and Petroleum (DMP)) on 21 August 2008 and authorised the clearing of up to 21 hectares of native vegetation within an area totalling approximately 178 hectares. Robe River Limited (Robe River) applied to DMP on 1 February 2010 to amend clearing permit CPS 2552/1 to extend the timeframe to complete rehabilitation from 6 months to 12 months following clearing. DMP initiated an amendment to CPS 2552/2 on 30 October 2012 to amend an administrative error. The clearing area and permit boundary remained unchanged.

3. Assessment of application against clearing principles

Comments

Robe River has applied to amend Clearing permit CPS 2552/3 for the purpose of increasing the permit boundary from approximately 178 hectares to approximately 2307 hectares. The clearing area will remain unchanged (21 hectares).

A vegetation and flora survey has been undertaken over the amended application area by Biota (2007). The survey recorded an additional 12 vegetation types within the amended application area (Biota, 2007). Given the significant increase in the permit boundary, it is expected that the amended application area would encompass a greater number of vegetation types. These vegetation types are considered to be well represented in the region (Rio Tinto, 2014).

The flora and vegetation survey did not record any Threatened flora species within the amended application area however did record three Priority flora species; *Indigofera* sp. Bungaroo Creek (S. van Leeuwen 4301) (P3), *Triodia* sp. Robe River (M.E. Trudgen *et al*. MET 12367) (P3) and *Rhynchosia bungarensis* (P4). All three of these species have been identified in numerous locations outside of the amended application area and in greater numbers (Rio Tinto, 2014). The proposed amendment will cause Priority flora to fall within the permit boundary, however the proposed clearing of 21 hectares of native vegetation is not likely to significantly impact on these species.

There are no Threatened Ecological Communities within the amended application area (Rio Tinto, 2014; GIS Database). The amended application area falls within the buffer of the Priority 1 'Stygofaunal community of the Bungaroo Aquifer' Priority Ecological Community (PEC) (Rio Tinto, 2014). This PEC is an aquatic subterranean fauna assemblage and does not correlate with any vegetation units (Rio Tinto, 2014). As the proposed amendment will not increase the area to be cleared, the proposed amendment is not likely to have a greater impact than what was approved under clearing permit CPS 2552/1.

The amended application area falls within Beard vegetation associations 82 and 609, which both retain approximately 99% of their pre-European extents (Government of Western Australia, 2013; GIS Database). The proposed amendment to increase the permit boundary will not impact on any remnants of native vegetation.

Three broad fauna habitats have been identified within the amended application area (Biota, 2006), which are consistent with the fauna habitat types identified in the assessment of clearing permit CPS 2552/1. Two of the habitat types; lower slopes and plains and rocky hills and slopes, are considered to be representative of the major habitats available in the Hamersley subregion, however the drainage line habitat is unlikely to be widespread in the region (Biota, 2006). Drainage line habitat was however the most widespread habitat within the amended application area, covering an approximately 63 percent (Rio Tinto, 2014).

No fauna of conservation significance have been recorded within the amended application area (Rio Tinto, 2014). The following conservation significant fauna species have been recorded within 4 to 13 kilometres of the amended application area; Northern Quoll, Pilbara Olive Python, Orange Leaf-nosed Bat, Rainbow Bee Eater, Australian Bustard, Bush Stone-curlew, Ghost Bat and Lined Soil-crevice Skink (Rio Tinto, 2014). These species may potentially occur within the amended application area however the proposed amendment is not expected to significantly impact on these species given there are substantial areas of suitable habitat within and surrounding the application area (Rio Tinto, 2014).

The amended application area covers the upper reaches of the Bungaroo Creek within the Bungaroo Valley (Rio Tinto, 2014). Bungaroo Creek is subject to seasonal inundation; however no permanent waterholes or wetlands have been observed within the amended application area (Biota, 2007). Vegetation units associated with drainage areas are the most widespread vegetation units within the amended application area (Rio Tinto, 2014). The clearing of 21 hectares within a proposed permit boundary of 2307 hectares is not expected to have a greater impact on Bungaroo Creek than what was approved under CPS 2552/1.

The amended application area covers an additional land system; Newman Land System (GIS Database). Like the Boolgeeda and Urandy Land Systems that also occur within the amended application area, the Newman Land System is not susceptible to erosion (Van Vreeswyk et al, 2004).

The proposed amendment is not expected to impact on any conservation areas (GIS Database).

The proposed increase in the permit boundary is not likely to have a greater impact on surface or groundwater, nor increase the incidence in flooding.

The assessment of the clearing principles is consistent with the assessment contained in decision report CPS 2551/1.

Methodology

Biota (2006)
Biota (2007)
Government of Western Australia (2013)
Rio Tinto (2014)
Van Vreeswyk et al (2004)
GIS Database:
- DEC Tenure
- IBRA WA (regions - Sub Regions)
- Pre-European Vegetation
- Rangeland Land System Mapping
- Threatened and Priority Flora

- Threatened Ecological Sites

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

Comments

There is one Native Title Claim (WC1999/012) 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 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.

The clearing permit application was advertised on 18 August 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions have been received in relation to the application.

Methodology

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

4. References

Biota (2006) Fauna Habitats and Fauna Assemblage of the Mesa A Transport Corridor and Warramboo. Unpublished report prepared for Robe River Limited.

Biota (2007) A Vegetation and Seasonal Flora Survey of the Bungaroo Trial Pit and Transport Corridor to Mesa J, and Sampling of the Broader Bungaroo Valley. Unpublished report prepared for Robe River Limited.

Government of Western Australia (2013) 2012 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) Statement Addressing the 10 Clearing Principles - Geotech Drilling at Bungaroo, Robe Valley. Unpublished report.

Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) Technical Bulletin - An Inventory and Condition Survey of the Pilbara Region, Western Australia, No. 92. Department of Agriculture, Government of Western Australia, Perth, 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	*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.