



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5266/3
Permit type: Purpose Permit

1.2. Proponent details

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

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: Mesa A and Warramboos Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
111		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 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):

583: Hummock grasslands, sparse shrub steppe; kanji and *Acacia bivenosa* over hard spinifex *Triodia basedowii* and *T. wiseana* (GIS Database); and

600: Sedgeland; sedges with open low tree savannah; *Eucalyptus* sp. *aff aspera* over various sedges.

A large flora and vegetation survey was conducted over the original application area and surrounding mesas by Biota Environmental Sciences in October 2010 (Biota, 2011a). The application area comprised of one vegetation type:

AarTw: *Acacia aneura* var. *conifera* low open woodland over *Triodia wiseana* hummock grassland (Biota, 2011a).

The following two vegetation types occur on the edges of the application area and may encroach into the application area in parts:

AiAarTw: *Acacia inaequilatera* scattered tall shrubs over *Acacia arida* open shrubland to open heath over *Triodia wiseana* hummock grassland.

EiAarTw: *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia arida* shrubland to tall shrubland over *Triodia wiseana* hummock grassland (Biota, 2011a).

A vegetation, flora and fauna assessment was conducted over the additional application area by Astron Environmental Services (Astron, 2014). A total of nine vegetation associations were recorded, including:

EiChGwAtpAanAatTw: *Eucalyptus leucophloia* and *Corymbia hamersleyana* low woodland to *Grevillea wickhamii* tall open shrubland over *Acacia ancistrocarpa*, *A. tumida* var. *pilbarensis* and/or *A. atkinsiana* over *Triodia wiseana* open hummock grassland;

ChAiAtTw: *Corymbia hamersleyana* scattered low trees over *Acacia inaequilatera* scattered tall shrubs over *Acacia trachycarpa* open shrubland over *Triodia wiseana* hummock grassland;

AanSaoTeCf: *Acacia ancistrocarpa* tall open scrub over *Senna artemisioides* subsp. *oligophylla* scattered shrubs over *Triodia epactia* open hummock grassland and *Chrysopogon fallax* open tussock grassland;

AanSaoTeCf: *Acacia ancistrocarpa* tall open scrub over *Senna artemisioides* subsp. *oligophylla* scattered shrubs over *Triodia epactia* open hummock grassland and *Chrysopogon fallax* open tussock grassland;

AanAsTwTe: *Acacia ancistrocarpa* tall open shrubland over *Acacia synchronica* scattered shrubs over *Triodia wiseana* and *Triodia epactia* open hummock grassland;

AtCIAanTw: *Acacia trachycarpa* and *Cullen lachnostachys* scattered shrubs over *Acacia ancistrocarpa* open shrubland over *Triodia wiseana* very open hummock grassland (recently burnt);

ChAtpAaTw: *Corymbia hamersleyana* low open woodland over *Acacia tumida* var. *pilbarensis* tall open scrub over *Acacia atkinsiana* shrubland over *Triodia wiseana* very open hummock grassland (recently burnt);

AtTw: *Acacia trachycarpa* tall shrubland over *Triodia wiseana* hummock grassland; and

AaTe: Bare ground with scattered *Acacia ancistrocarpa* shrubs and scattered *Triodia epactia* hummocks.

Clearing Description

Mesa A and Warramboos Project.
Robe River Limited (Robe River) has applied to clear up to 111 hectares of native vegetation, within a total boundary of 585.77 hectares, for the purpose of mineral exploration. The proposed clearing is located approximately 70 kilometres west of Onslow, in the Shire of Ashburton.

Vegetation Condition

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

To:

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

Comment

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. Areas in Very Good condition show signs of historic pastoral and exploration activity.

Clearing permit CPS 5266/1 was granted by the Department of Mines and Petroleum (DMP) on 1 November 2012 and authorised the clearing of up to 11 hectares within an application boundary of 80 hectares. Clearing Permit CPS 5266/2 was granted by the DMP on 7 February 2013 to increase the permit boundary by 3.95 hectares.

3. Assessment of application against clearing principles

Comments

On 22 August 2014, Robe River applied to increase the area permitted to clear from 11 hectares to 111 hectares and the permit boundary from 83.95 hectares to 585.77 hectares. The amended application area includes the Warramboos project area east of the original clearing permit boundary.

A total of 73 taxa from 23 families and 50 genera were recorded within the Warramboos project area during a vegetation and flora assessment conducted by Astron (2014). Flora diversity was not considered to represent an area of high floristic diversity, and is similar to survey records within adjacent areas (Astron, 2014). A desktop assessment conducted by Astron (2014) identified six Priority flora which had the potential to occur within the additional application area, including *Abutilon* sp. Onslow (F. Smith s.n. 10/9/61) (Priority 1), *Acacia glaucocaesia* (Priority 3), *Owenia acidula* (Priority 3), *Solanum albotellatum* (Priority 3), *Eremophila youngii* subsp. *Lepidota* (Priority 4), and *Goodenia nuda* (Priority 4). However, no Threatened or Priority flora were recorded during the subsequent field survey, and Astron (2014) advises that the habitat types within the application area are unlikely to support the Priority flora listed above. Areas within the Warramboos project area which were not traversed by Astron (2014) have been searched for rare and priority flora during previous surveys (Biota, 2010; Biota, 2012). No rare or priority flora were identified by these surveys (Astron, 2014). No Threatened Flora, Priority Flora, Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) were recorded within the original application area (Biota, 2011).

Three weed species were recorded within the additional application area, including *Cenchrus ciliaris* (buffel grass), *Cenchrus setiger* (birdwood grass) and *Malvastrum americanum* (spiked malvastrum) (Astron, 2014). Weeds can decrease the biodiversity value of an area, as they out-compete native vegetation for available resources, contribute to land degradation and increase the frequency and intensity of fires (DEC, 2011). Potential impacts to biodiversity via weed invasion may be minimised by the implementation of a weed management condition.

No TECs were recorded by Astron (2014) or Biota (2011) within the amended application area. The amended application area occurs within the mapped boundary of the Priority 1 PEC 'subterranean invertebrate community of pisolitic hills in the Robe Valley' (GIS Database). However, DPaW (2014) has advised that the proposed clearing is not likely to impact this PEC, given the community is subterranean in nature.

Three broad fauna habitats were recorded within the additional application area, including 'drainage line', 'stony plain', and 'clay plain' (Astron, 2014). During the field assessment, three reptile species, 19 bird species and three mammals species were recorded directly (observation) or indirectly (tracks or scats) (Astron, 2014). Three conservation significant fauna species were recorded, including the Australia Bustard (*Ardeotis australis*; Priority 4), Rainbow Bee-eater (*Merops ornatus*; Migratory), and the Western Pebble-mound Mouse (*Pseudomys chapmani*; Priority 4) (Astron, 2014). Records for the Western Pebble-mound Mouse were limited to one observation of an inactive mound (Astron, 2014). This species is unlikely to occur within the application area in large numbers, and is not likely to be dependent on habitat within the application area on a local or regional scale. The three conservation significant fauna recorded are unlikely to be significantly dependent on habitat within the application area, given the availability of similar habitat outside the clearing permit boundary.

Therefore, the proposed clearing is not likely to be at variance to Principles (a), (b), (c) and (d).

The application area falls within the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, in which approximately 99.6% of the pre-European vegetation remains (see table) (Government of Western Australia, 2013; GIS Database). The vegetation within the application area has been mapped as Beard vegetation associations 583 and 600 (GIS Database). Over 90% of these Beard vegetation associations remain at both a state and bioregional level (Government of Western Australia, 2013). Based on aerial imagery, the vegetation within the application area is neither a remnant itself nor does it form part of any remnants within the local area (GIS Database). Therefore, the proposed clearing is not at variance to Principle (e).

	Pre-European Area (ha)*	Current Extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW Managed Lands
IBRA Bioregion – Pilbara	17,808,657	17,733,584	~99.6	Least Concern	8.4
Beard Veg Assoc. – State					
583	243,111	243,111	~100.0	Least Concern	40.9
600	67,125	66,964	~99.8	Least Concern	0.0
Beard Veg Assoc. – Bioregion					
583	243,111	243,111	~100	Least Concern	40.9
600	67,036	66,955	~99.9	Least Concern	0.0

* Government of Western Australia (2013)

** Department of Natural Resources and Environment (2002)

The additional application areas lie within the Peedamulla and Cane land systems (GIS Database). The Peedamulla land system is characterised by gravelly plains supporting hard spinifex grasslands and minor snakewood shrublands (Van Vreeswyk et al., 2004). Tussock grasslands and grassy snakewood shrub communities in this land system are prone to degradation, including erosion (Van Vreeswyk et al., 2004). Approximately 7.8% of the application area lies within the Cane land system (Astron, 2014), which comprises alluvial and flood plains supporting snakewood shrublands, soft and hard spinifex grasslands and tussock grasslands (Van Vreeswyk et al., 2004). Soils within this land system are highly susceptible to erosion if vegetation cover is removed, and as such the proposed clearing has the potential to cause erosion in this area (Van Vreeswyk et al., 2004).

The 111 hectares proposed to be cleared is dispersed across a 585 hectare area, which minimises the potential for widespread soil destabilisation and erosion following a loss of vegetative cover. Further land degradation via soil erosion may be minimised by the rehabilitation condition that exists on the previous version of the permit, which requires all cleared land to be rehabilitated within 12 months. The proposed clearing is not likely to be at variance to Principle (g).

The amended application area intersects two minor, non-perennial watercourses (Astron, 2014; GIS Database). While the period of inundation of ephemeral watercourses within the application area is likely to be restricted, the clearing of native vegetation has the potential to destabilise soils and cause temporary sedimentation to watercourses.

One vegetation association (EICHGwAtpAanAatTw) was recorded in association with drainage lines (Astron, 2014) and is therefore considered to be riparian in nature. However, this vegetation community did not contain any unusual or restricted flora assemblages, and is considered to be widespread within the surrounding landscape (Astron, 2014). Therefore, the proposed clearing is not likely to impact on the conservation status of riparian vegetation on a local or regional scale. Potential impacts to surface water and riparian vegetation as a result of the proposed clearing may be minimised by the implementation of a watercourse management condition.

Based on the above, the proposed clearing is at variance to Principle (f), and not likely to be at variance to Principle (i).

Current environmental information has been reviewed and the assessment of clearing principles (h) and (j) is consistent with the assessment in clearing permit decision report CPS 5266/1 and clearing permit decision report CPS 5266/2.

Methodology Astron (2014)
Biota (2010)
Biota (2011)

Biota (2012)
DEC (2011)
Department of Natural Resources and Environment (2002)
DPaW (2014)
Government of Western Australia (2013)
Van Vreeswyk et al. (2004)
GIS Database:
- Hydrography, linear
- Pre-European Vegetation
- Rangeland Land System Mapping
- Threatened Ecological Sites Buffered

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

Comments

There is one native title claim over the area under application (GIS Database). This claim (WC1999/012) has been registered with the Native Title Tribunal on behalf of the claimant group (GIS Database). However, 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 Sites of Aboriginal Significance located in the area applied to clear (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.

The clearing permit application was advertised on 8 September 2014 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

Methodology

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

4. References

- Astron (2014) Warramboos and Highway Deposit RE Drilling AR-13-11882 Vegetation, Flora and Fauna Assessment. Consultants report prepared by Astron Environment Services for Rio Tinto Iron Ore.
- Biota (2010) Vegetation and Flora Survey of Warramboos - Summary Report. Consultants report prepared by Biota Environmental Sciences for Rio Tinto Iron Ore, Perth.
- Biota (2011) Baseline Flora and Vegetation Assessment of Robe Valley Mesas (Mesas B, C, D, E, F, H and I). Consultants report prepared by Biota Environmental Sciences Pty Ltd for Rio Tinto Iron Ore.
- Biota (2012) Warramboos Extension Section 45C Biological Assessment. Consultants report prepared by Biota Environmental Sciences Pty Ltd for Rio Tinto Iron Ore.
- DEC (2011) Invasive Plant Prioritisation, Department of Environment and Conservation, Perth.
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- DPaW (2014) Advice provided to the assessing office on 15 October 2014 by Species and Communities Branch, Department of Parks and Wildlife.
- 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 <i>the 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.