



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6689/3
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 East Pilbara
Colloquial name: Mesa A to Mesa G Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
620		Mechanical Removal	Mineral exploration, a construction camp, hydrogeological and geotechnical investigations and associated activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 13 July 2017

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. Eight Beard vegetation associations are located within the application area (GIS Database):

Beard vegetation association 29: Sparse low woodland mulga, discontinuous in scattered groups;

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

Beard vegetation association 93: Hummock grasslands, shrub steppe; kanji over soft spinifex;

Beard vegetation association 583: Hummock grasslands, sparse shrub steppe; kanji and *Acacia bivenosa* over hard spinifex *Triodia basedowii* and *T. wiseana*;

Beard vegetation association 600: Sedgeland; sedges with open low tree sananna; *Eucalyptus* sp. aff *aspera* over various sedges;

Beard vegetation association 604: Hummock grasslands, shrub steppe; kanji and snakewood over soft spinifex;

Beard vegetation association 605: Hummock grasslands, shrub steppe; *Acacia pachycarpa* and waterwood over soft spinifex;

Beard vegetation association 620: Hummock grasslands, shrub steppe; snakewood over soft spinifex.

The following vegetation associations have been mapped within the amendment area from flora surveys undertaken by Biota Environmental Sciences in 2011 and MWH in 2016 (Rio Tinto, 2017):

Vegetation of slopes

AarTwTRR - *Acacia arida* mid open shrubland over *Triodia wiseana* and *Triodia* sp. Robe River (M.E. Trudgen et al. MET 12367) hummock grassland;

AbAanAatTw - *Acacia bivenosa*, *Acacia ancistrocarpa* and *Acacia atkinsiana* mid open to sparse shrubland over *Triodia wiseana* hummock grassland;

EIAarTw - *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Acacia arida* low open shrubland over *Triodia wiseana* open hummock grassland;

Vegetation of plains

AarAbTw - *Acacia arida* and *Acacia bivenosa* mid open shrubland over *Triodia wiseana* hummock grassland;

AatCtTw - *Acacia atkinsiana* tall to mid open shrubland over *Corchorus tectus* low sparse shrubland over *Triodia*

wiseana hummock grassland;

AbTw - *Acacia bivenosa* mid sparse to open shrubland over *Triodia wiseana* hummock grassland;

ChAbAttrTw - *Corymbia hamersleyana* low isolated trees over *Acacia bivenosa* and *Acacia trachycarpa* mid sparse to open shrubland over *Triodia wiseana* hummock grassland to open hummock grassland;

ChGrTuTw - *Corymbia hamersleyana* low open woodland over *Gossypium robinsonii* tall sparse shrubland over *Tephrosia uniovulata* and *Hibiscus sturtii* var. *campylochlams* low sparse shrubland over *Triodia wiseana* and *Triodia epactia* open hummock grassland;

EIAaAarTw - *Eucalyptus leucophloia* scattered low trees over *Acacia atkinsiana* (*A. arida*) open shrubland to tall shrubland over *Triodia wiseana* hummock grassland;

AiAaAbTw - *Acacia inaequilatera* scattered tall shrubs over *Acacia ancistrocarpa*, *A. bivenosa* open shrubland to shrubland over *Triodia wiseana* hummock grassland;

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

Vegetation associations within the remainder of the permit boundary are detailed in decision reports CPS 6689/1 and CPS 6689/2.

Clearing Description	Mesa A, to Mesa G Project Robe River Limited proposes to clear up to 620 hectares of native vegetation within a total boundary of approximately 4,648 hectares, for the purpose of mineral exploration, a construction camp, hydrogeological and geotechnical investigations and associated activities. The project is located approximately 20 kilometres south of Pannawonica in the Shire of East Pilbara.
Vegetation Condition	Pristine: No obvious signs of disturbance (Keighery, 1994); To: Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).
Comment	A number of flora and vegetation surveys have been conducted within and surrounding the application area (Rio Tinto, 2015). Given the large size of the application area, a vegetation consolidation exercise was undertaken by Rio Tinto and Eco Logical Australia (Rio Tinto, 2015). Vegetation types identified as occurring within the application area have been based on the results of selected surveys that were deemed to provide the best overall coverage of the application area (Rio Tinto, 2015). The vegetation condition for the amended area (CPS 6689/3) was described using a scale based on Trudgen (1988) and has been converted to the corresponding condition from the Keighery (1994) scale. Clearing permit CPS 6689/1 was amended on 23 June 2016 to increase the amount of clearing from 500 to 600 hectares and increase the clearing permit boundary from 3,750 to 4,600 hectares. The amendment also aligned the reporting date, reporting period and expiry date to Robe River Limited's new standard reporting dates. Robe River Limited has applied to amend CPS 6689/2 to increase the amount of clearing authorised to 620 hectares, increase the clearing permit boundary to 4,648 hectares and include construction camp as a purpose of clearing.

3. Assessment of application against Clearing Principles

Comments

Robe River Limited has applied to increase the area permitted to clear by 20 hectares, and to increase the permit boundary by approximately 48 hectares. The amendment also includes construction camp as a purpose of clearing. Part of the additional permit boundary covers the existing permit CPS 7077/1 which will be surrendered following this amendment.

The flora and vegetation survey within the amended permit boundary identified 11 vegetation associations, which are well represented within the local and regional area (Rio Tinto, 2017). None of the vegetation associations recorded are associated with a Threatened Ecological Community (Rio Tinto, 2017; GIS Database). Part of the amendment area intersects the Priority 1 Ecological Community (PEC) 'Subterranean invertebrate community of pisolitic hills in the Pilbara' (GIS Database). Potential impacts to this PEC as a result of the proposed clearing may be minimised by the existing restricted clearing condition.

None of the species recorded within the amendment area were identified as a Threatened or Priority Flora species (Rio Tinto, 2017; GIS Database). Four species of Priority flora have been recorded within 10 kilometres of the amendment area with one species; *Triodia* sp. Robe River, recorded within 50 metres of the amendment area (Rio Tinto, 2017). It is considered likely that *Triodia* sp. Robe River is present within the amendment area. The proposed additional clearing of habitat for this species is not likely to have a significant impact.

There has been five broad fauna habitats identified within the amendment area; stony plain, acacia on stony plain, mesa plateau, scree slope and major river (Rio Tinto, 2017). Nearly 80% of the amendment area was identified as being stony plain habitat (Rio Tinto, 2017). Major river habitats are considered significant as they contain a complexity of habitats and both permanent and semi-permanent pools. However, the major river habitat within the application area does not contain any surface water pools or large Eucalypt trees (Rio Tinto,

2017).

A number of conservation significant fauna species may potentially utilise the amendment area. In particular the Northern Quoll (*Dasyurus hallucatus*), Pilbara Leaf-nosed Bat (*Rhinionictes aurantia*), Pilbara Olive Python (*Liasis olivaceus barroni*), Ghost Bat (*Macroderma gigas*) and the Western Pebble-mound Mouse (*Pseudomys chapmani*) are all considered likely to occur within the amendment area (Rio Tinto, 2017). These species are likely to forage within the amendment area, however, there is no significant roosting or breeding habitat present (Rio Tinto, 2017). The proposed additional clearing is not likely to have a significant impact on fauna species. A fauna management and fauna habitat management condition was imposed on Clearing Permit CPS 6689/2 to minimise impacts to conservation significant species identified during previous fauna surveys.

Part of the amendment area (that is covered by the CPS 7077/1 permit boundary) is located within the Robe River which is a major, ephemeral watercourse in the Robe Valley (GIS Database). The vegetation association ChAbAtrTw was associated within this area, of which there is 5.8 hectares within the amendment area (Rio Tinto, 2017). This vegetation is located on lower slopes and is not part of the true flood plain of the Robe River (Rio Tinto, 2017). The proposed clearing is not likely to have a significant impact on the Robe River. Potential impacts to watercourses may be minimised by the vegetation management condition already imposed on the permit.

The amendment area has been mapped as occurring on the Capricorn, Peedamulla, River and Robe land systems (Van Vreeswyk et al., 1994; GIS Database). The Capricorn and Robe land systems are generally not prone to erosion or degradation (Van Vreeswyk et al., 1994). The grassy snakewood shrub communities of the Peedamulla land system can be prone to degradation if vegetation cover is removed (Van Vreeswyk et al., 1994). The River land system is highly susceptible to erosion if vegetation cover is removed (Van Vreeswyk et al., 1994). Impacts from land degradation may be minimised by the staged clearing and watercourse management conditions currently on the permit.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*. The assessment against the clearing Principles remains unchanged, and further information can be found in previous decision reports.

Methodology Rio Tinto (2017)
Van Vreeswyk et al. (1994)

GIS Database:

- Hydrography, linear
- Landsystems Rangelands
- Pre-European Vegetation
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities (TEC/PEC) – Buffered

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

Comments

There are two native title claims over the application area (WC1999/012; WC2016/002) (Department of Planning, Lands and Heritage, 2017). 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 numerous Sites of Aboriginal Significance located in the area applied to clear (Department of Planning, Lands and Heritage, 2017). 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 Water and Environmental Regulation and the Department of Biodiversity Conservation and Attractions, 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 amendment application was advertised on 29 May 2017 by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) inviting submissions from the public. No submissions were received.

Methodology Department of Planning, Lands and Heritage (2017)

4. References

Department of Planning, Lands and Heritage (2017) Aboriginal Heritage Enquiry System. Government of Western Australia, <http://maps.dia.wa.gov.au/AHIS2/>. (Accessed 7 July 2017).

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 (2015) Desktop Flora, Vegetation and Fauna Habitat Assessment at Robe Valley: Native Vegetation Clearing Permit – Supporting Report. Rio Tinto Iron Ore, Perth, Western Australia.

Rio Tinto (2017) Statement Addressing the 10 Clearing Principles at Warrambo, Mesa A and Mesa C, Native Vegetation Clearing Permit Supporting Report. Prepared by Rio Tinto Iron Ore, May 2017.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
DWER	Department of Water and Environmental Regulation, Western Australia
EPA	Environmental Protection Authority, Western Australia (now DWER)
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
TEC	Threatened Ecological Community

Definitions:

{DPaW (2017) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia):-

T

Threatened species:

Published as Specially Protected under the *Wildlife Conservation Act 1950*, listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

Threatened fauna is that subset of ‘Specially Protected Fauna’ declared to be ‘likely to become extinct’ pursuant to section 14(4) of the Wildlife Conservation Act.

Threatened flora is flora that has been declared to be ‘likely to become extinct or is rare, or otherwise in need of special protection’, pursuant to section 23F(2) of the Wildlife Conservation Act.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR

Critically endangered species

Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

EN

Endangered species

Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation

(Rare Flora) Notice for Threatened Flora.

- VU Vulnerable species**
Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
- EX Presumed extinct species**
Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.
- IA Migratory birds protected under an international agreement**
Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- CD Conservation dependent fauna**
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- OS Other specially protected fauna**
Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P Priority species**
Species which are poorly known; or
Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.
- P1 Priority One - Poorly-known species:**
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
- P2 Priority Two - Poorly-known species:**
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
- P3 Priority Three - Poorly-known species:**
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations 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 locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
- 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 are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

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.