



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 7628/1  
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 Hub Project

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 10 August 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. Three Beard vegetation association has been mapped over the application area (GIS Database):

**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 & *Acacia bivenosa* over hard spinifex *Triodia basedowii* & *T. wiseana*;

Numerous flora and vegetation surveys have been conducted within and surrounding the application area (Rio Tinto, 2017). A survey conducted by MWH in 2016 has been used and forms the basis of the flora and vegetation desktop assessment for the application (Rio Tinto, 2017). The following thirteen vegetation types have been identified within the application area (Rio Tinto, 2017):

#### Vegetation of Slopes

- *Acacia arida* and *Acacia bivenosa* mid open shrubland over *Triodia wiseana* hummock grassland;
- *Acacia bivenosa*, *Acacia ancistrocarpa* and *Acacia atkinsiana* mid open to sparse shrubland over *Triodia wiseana* hummock grassland;
- *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Acacia arida* low open shrubland over *Triodia wiseana* open hummock grassland;

#### Vegetation of Plains

- *Acacia ancistrocarpa* and *Acacia bivenosa* mid open shrubland over *Sida* sp. Pilbara (A.A. Mitchell PRP 1543) low sparse shrubland over *Triodia epactia* open hummock grassland;
- *Acacia arida* mid open shrubland over *Triodia wiseana* hummock grassland;
- *Acacia atkinsiana* and *Acacia ancistrocarpa* mid to low open to sparse shrubland over *Corchorus tectus* low open to sparse shrubland over *Triodia wiseana* sparse hummock grassland;
- *Acacia atkinsiana* tall to mid open shrubland over *Corchorus tectus* low sparse shrubland over *Triodia wiseana* hummock grassland;
- *Acacia bivenosa*, *Acacia ancistrocarpa*, *Acacia atkinsiana* and *Acacia arida* mid open to sparse shrubland over *Triodia wiseana* hummock grassland;
- *Acacia bivenosa*, *Acacia ancistrocarpa* and *Acacia inaequilatera* mid sparse shrubland over *Triodia wiseana* hummock grassland;
- *Acacia xiphophylla* mid isolated shrubs over *Brachyachne prostrata* and *Sclerolaena costata* open herbland with *Triodia epactia* isolated hummock grasses;
- *Acacia xiphophylla* tall open to sparse shrubland over *Triodia wiseana* open hummock grassland;
- *Corymbia candida* low open woodland over *Acacia ancistrocarpa* and *Acacia bivenosa* tall to mid open to sparse shrubland over *Triodia epactia* with occasional *Triodia wiseana* hummock grassland to open hummock grassland;

#### Vegetation of minor drainage lines

- *Corymbia hamersleyana* scattered low trees over *Acacia arida* shrubland over *Triodia wiseana* open hummock grassland;

The application area also contains various areas of disturbed vegetation.

<b>Clearing Description</b>	Mesa A Hub Project Robe River Limited proposes to clear up to 6 hectares of native vegetation within a total boundary of approximately 50 hectares, for the purpose of mineral exploration, geotechnical investigations and associated activities. The project is located approximately 40 kilometres west of Pannawonica in the Shire of East Pilbara.
<b>Vegetation Condition</b>	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).  To:  Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).
<b>Comment</b>	The vegetation condition was derived from flora and vegetation surveys conducted by MWH in 2016, summarised and presented by Rio Tinto (2017).

### 3. Assessment of application against clearing principles

#### Comments

The application area consists of seven separate areas of varying size. Up to six hectares of native vegetation is proposed to be cleared within a total clearing permit boundary area of 50 hectares. The proposed clearing is required for mineral exploration geotechnical investigations and associated activities that will support future development of the Warramnoo, Mesa B and Mesa C areas, which form part of the Mesa A Mine site.

The application area is located within the Hamersley and Roebourne subregions of the Pilbara Interim Biogeographic Regionalisation for Australia bioregion (GIS Database). At a broad scale, vegetation of the Hamersley subregion can be described as Mulga low woodlands over bunch grasses on fine textured soils in valley floors and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges (CALM, 2002). The Roebourne subregion is comprised of coastal and sub-coastal plains with grass savannah of mixed bunch and hummock grasses, and dwarf shrub steppe of *Acacia stellaticeps* or *A. pyrifolia* and *A. inaequilatera*. Uplands are dominated by *Triodia* hummock grasslands and drainage lines support *Eucalyptus victrix* or *Corymbia Hamersleyana* woodlands (CALM, 2002).

The condition of the vegetation ranges from 'Excellent' to 'Completely Degraded' (Keighery, 1994). The majority of the vegetation proposed to be cleared is considered to be in 'Very Good' (Keighery, 1994) condition (Rio Tinto, 2017). Areas of existing disturbance occur throughout the local area (and parts of the application area) as a result of previous and existing mining operations (Rio Tinto, 2017; GIS Database).

Numerous flora and vegetation surveys and fauna surveys have been conducted within and surrounding the application area (Rio Tinto, 2017). Flora and fauna findings have been taken from survey work conducted by MWH and presented by Rio Tinto (2017).

No Threatened or Priority flora have been recorded within the application area (Rio Tinto, 2017). However, four Priority listed species are known from the local area; *Abutilon* sp. Onslow (F. Smith 10/9/61) (P1), *Triodia* sp. Robe River (M.E.Trudgen et al. MET 12367) (P3), *Goodenia nuda* (P4) and *Rhynchosia bungarensis* (P4). These species are either unlikely to be significantly impacted by the proposed clearing at a species, population or conservation level, or preferred habitat is absent (WA Herbarium, 1998-; Rio Tinto, 2017).

Five broad fauna habitat types have been identified within the application area and vicinity;

- Stony plain;
- *Acacia* on stony plain;
- Scree slope;
- Mesa plateau; and
- Stony hills and rises

The parts of these habitats within the application area do not contain any significant fauna habitat such as caves, gorges/gullies or surface water pools (Rio Tinto, 2017). The habitats present within the application area are not unique or restricted and are considered to be well represented in the surrounding area (Rio Tinto, 2017; GIS Database). The mapped Beard vegetation associations (29, 93 & 583) are well represented, with all three retaining over 99% within state and bioregion (Government of Western Australia, 2016)

No Threatened Ecological Communities (TECs) are known within the application area (Rio Tinto, 2017; GIS Database). However, sections of the clearing permit boundary intersect the buffer area of two Priority 1 Ecological Communities (PECs);

- Subterranean invertebrate community of pisolitic hills in the Pilbara (P1)
- Subterranean invertebrate communities of mesas in the Robe Valley (P1)

While the root material of vegetation may assist in maintaining a humid subterranean environment, subterranean invertebrate communities are unlikely to be significantly impacted by the proposed clearing of native vegetation for mineral exploration, geotechnical investigations and associated activities. Direct impacts to subterranean fauna species occur through the excavation of habitat (i.e. pit excavation). Mineral exploration does have the potential to disturb subterranean fauna habitat, but not on the same scale as mining operations. Impacts from clearing up to 6 hectares of native vegetation will be negligible.

The application area does not intercept any major drainage lines and no mapped watercourses occur, although a number of minor ephemeral drainage lines that flow after significant rainfall events dissect parts of the application area (Rio Tinto, 2017) and therefore vegetation may be growing in association with these features. Potential impacts to vegetation growing in association with a watercourse as a result of the proposed clearing may be minimised by the implementation of a watercourse management condition.

The proposed clearing of up to 6 hectares of native vegetation, within a setting already exposed to mining related disturbance and infrastructure, is considered unlikely to have any measureable impacts on surface or groundwater quality, increase erosion risks or alter existing flooding regimes.

While no introduced flora species (weeds) are known to occur within the application area, a number of species have been recorded in the vicinity (Rio Tinto, 2017) Clearing activities have the potential to spread existing weed species, and possibly introduce new species to the environment, which may negatively impact on the biodiversity of the local area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

Given the relatively small size of the proposed clearing, the amount of existing disturbance in the vicinity and the large amount of remaining vegetation in the surrounding area, significant environmental impacts are unlikely to result from the proposed clearing.

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 may be at variance to Principle (f), in not at variance to Principle (e) and is not likely to be at variance with the remaining principles.

#### Methodology

CALM (2002)  
DPaW (2017)  
Government of Western Australia (2016)  
Keighery (1994)  
Rio Tinto (2017)  
WA Herbarium, 1998-;

GIS Database:  
- DPaW Tenure  
- Hydrography, linear  
- IBRA Australia  
- Imagery  
- Pre-European Vegetation  
- Public Drinking Water Source Areas (PDWSAs)  
- Threatened and Priority Flora List  
- Threatened and Priority Ecological Communities Buffers  
- Threatened and Priority Ecological Communities Boundaries

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

#### Comments

There is one native title claim over the application area (WC1999/012 (DPLH, 2017)). This claim has been registered with the National Native Title Tribunal on behalf of the claimant groups. However, the mining tenements have 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*.

According to available databases, there are several registered Sites of Aboriginal Significance located in the vicinity of the application area (DPLH, 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 clearing permit application was advertised on 3 July 2017 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received.

#### 4. References

- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management.
- DPaW (2017) NatureMap, Department of Parks and Wildlife <<http://naturemap.dec.wa.gov.au>> Accessed August 2017.
- DPLH (2017) Aboriginal Heritage Inquiry System, Department of Planning, Lands and Heritage, Perth, Western Australia <<http://maps.daa.wa.gov.au>> Accessed August 2017.
- Government of Western Australia (2016) 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2016. 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 (2017) Mesa A Hub Project Native Vegetation Clearing Permit Application, Supporting Information for CPS 7628/1. Prepared by Rio Tinto Iron Ore Ltd on behalf of Robe River Pty Ltd, Perth, Western Australia, June 2017.
- Western Australian Herbarium (1998–) FloraBase—the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <https://florabase.dpaw.wa.gov.au/>

#### 5. Glossary

##### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia (now DPLH)
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia (now DPIRD)
<b>DBCA</b>	Department of Biodiversity Conservation and Attractions, Western Australia
<b>DEC</b>	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
<b>DEE</b>	Department of the Environment and Energy, Australian Government
<b>DER</b>	Department of Environment Regulation, Western Australia (now DWER)
<b>DMIRS</b>	Department of Mines, Industry Regulation and Safety, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia (now DMIRS)
<b>DPIRD</b>	Department of Primary Industries and Regional Development, Western Australia
<b>DPLH</b>	Department of Planning, Lands and Heritage, Western Australia
<b>DRF</b>	Declared Rare Flora
<b>DoE</b>	Department of the Environment, Australian Government (now DEE)
<b>DoW</b>	Department of Water, Western Australia (now DWER)
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia (now DBCA)
<b>DSEWPac</b>	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
<b>DWER</b>	Department of Water and Environmental Regulation, Western Australia
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>TEC</b>	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.