



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3893/3
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Robe River Mining Co Pty Ltd

1.3. Property details

Property: Iron Ore (Robe River) Agreement Act 1964, Mineral Lease 248SA (AML70/248)
Local Government Area: Shire of Ashburton
Colloquial name: West Angelas Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
7.5		Mechanical Removal	Mineral Exploration and Hydrogeological Investigations

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 10 July 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 have been mapped within the application area (GIS Database):

18: Low woodland; mulga (*Acacia aneura*); and

82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana* (GIS Database).

The CPS 3893/2 permit area was surveyed by Rio Tinto staff on 18-20 May 2010 (Rio Tinto, 2010). The following vegetation types were identified within the application area:

Stony Slope Vegetation

SS1: *Eucalyptus gamophylla* low open forest over *Acacia bivenosa*, *Acacia pruinocarpa* open shrubland over *Eremophila forrestii*, *Keraudrenia velutina* low open shrubland over *Triodia pungens*, *Triodia basedowii* open hummock grassland;

SS2: *Eucalyptus gamophylla*, *Eucalyptus leucophloia*, *Acacia aneura* low open forest over *Acacia bivenosa* open shrubland over *Eremophila forrestii* low open shrubland over *Triodia basedowii*, *Triodia pungens* and *Triodia melvillei* hummock grassland over *Cymbopogon ambiguus* very open tussock grassland;

SS3: *Eucalyptus leucophloia*, *Corymbia hamersleyana* low open forest over *Acacia maitlandii* open shrubland over *Triodia* sp. Mt Ella, *Triodia wiseana* hummock grassland;

SS4: *Eucalyptus leucophloia*, *Eucalyptus gamophylla* low open woodland over *Acacia bivenosa* shrubland over *Acacia effusa*, *Acacia tenuissima* low open shrubland over *Triodia basedowii*, *Triodia wiseana* hummock grassland;

SS5: *Eucalyptus leucophloia* low open woodland over *Acacia bivenosa* open shrubland over *Ptilotus rotundifolius* low open shrubland over *Triodia pungens* hummock grassland;

SS6: *Eucalyptus gamophylla*, *Eucalyptus socialis*, *Acacia catenulata* low open forest over *Rulingia luteiflora* open shrubland over *Keraudrenia velutina*, *Sida cardiophylla*, *Sida arsiniata* low shrubland over *Triodia pungens* open hummock grassland;

SS7: *Eucalyptus leucophloia*, *Corymbia hamersleyana* low open forest over *Acacia adoxa*, *Mirbelia viminalis* low open heath over *Triodia wiseana* hummock grassland;

SS8: *Eucalyptus leucophloia*, *Corymbia ferriticola*, *Hakea lorea* low open forest over *Acacia pyrifolia*, *Acacia bivenosa* open shrubland over *Triodia wiseana*, *Triodia* sp. Mt Ella hummock grassland;

SS9: *Acacia aneura*, *Acacia pruinocarpa*, *Acacia ayersiana*, *Rulingia luteiflora* open heath over *Acacia bivenosa*, *Senna luerssenii*, *Eremophila forrestii* low open shrubland over *Triodia basedowii* open hummock grassland over *Cymbopogon ambiguus* very open tussock grassland;

Vegetation from Rocky Crests

RC1: *Eucalyptus leucophloia* low open forest over *Acacia monticola* open shrubland over *Triodia* sp. Mt Ella, *Triodia wiseana* hummock grassland over *Eriachne mucronata* very open tussock grassland;

RC2: *Eucalyptus leucophloia*, *Acacia aneura* low open forest over *Ptilotus rotundifolius* low open shrubland over *Triodia wiseana*, *Triodia* sp. Mt Ella hummock grassland over *Cymbopogon ambiguus* scattered tussock grass;

Flowline Vegetation

FL1: *Corymbia hamersleyana*, *Grevillea wickhamii*, *Eucalyptus xerothermica* low open forest over *Acacia pyrifolia*, *Gossypium robinsonii*, *Senna glutinosa* shrubland over *Tephrosia rosea* low shrubland over *Triodia pungens* very open hummock grassland over *Themeda triandra*, *Eriachne tenuiculmis*, *Cenchrus ciliaris* tussock grassland (Rio Tinto, 2010).

Based on vegetation mapping done by Ecologia (2013) the following vegetation units are located within the additional areas for CPS 3893/3:

Plain

AaSITp: *Acacia aptaneura* open woodland over *Solanum lasiophyllum* isolated shrubs over *Triodia pungens* open hummock grassland;

AbTp: *Acacia pruinocarpa* sparse woodland over *Triodia basedowii* and/or *T. pungens* open hummock grassland;

PsAjs: *Pterocaulon sphacelatum* sparse herbland and *Aristida jerichoensis* var. *subspinulifera* isolated tussock grasses;

Drainage

EgKvPm: *Eucalyptus gamophylla* sparse woodland over *Keraudrenia velutina* isolated shrubs over *Paraneurachne muelleri* isolated tussock grasses; and

ExPnnTp: *Eucalyptus xerothermica* sparse woodland over *Ptilotus nobilis* supsp. *Nobilis* sparse shrubland over *Themeda triandra* open tussock grassland.

Clearing Description	West Angelas Project. Robe River Mining Co Pty Ltd proposes to clear up to 7.5 hectares of native vegetation within a boundary of 19.5 hectares for the purpose of mineral exploration and hydrogeological investigations. The project is located approximately 90 kilometres north-west of Newman.
Vegetation Condition	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).
Comment	Vegetation will be cleared using a raised blade technique where practicable or scrub rake in level terrain. Where previously cleared tracks require maintenance, the track may be graded using blade down technique (Robe, 2010). Clearing permit CPS 3893/1 was granted by the Department of Mines and Petroleum on 30 September 2010 and authorised the clearing of 3.3 hectares within a boundary of 14.8 hectares. On 18 July 2013 the permit was amended to increase the amount of authorised clearing to 5 hectares. Robe River Mining Co Pty Ltd has applied to amend CPS 3893/2 for the purpose of increasing the authorised clearing from 5 hectares to 7.5 hectares and increasing the permit boundary from 14.8 hectares to 19.5 hectares. They have also applied to add hydrogeological investigations to the purpose of the clearing and extend the duration of the permit by a further five years.

3. Assessment of application against clearing principles

Comments

Robe River Mining Co Pty Ltd has applied to increase the amount of clearing by 2.5 hectares, increase the permit boundary by 4.7 hectares, extend the duration of the permit and add hydrogeological investigations to the purpose of the clearing.

A flora and vegetation survey that covered the additional areas identified five vegetation units (Ecologia, 2013). None of these communities were identified as being a Threatened or Priority Ecological Community (Ecologia, 2013; GIS Database). These vegetation units are considered to be typical of those found in the Hamersley subregion (Rio Tinto, 2014).

There have been no records of any Threatened or Priority Flora species recorded within the additional areas (Rio Tinto, 2014; GIS Database). Based on known records and habitats in the area, there are six species of Priority Flora that are considered likely to be found within the additional areas (Rio Tinto, 2014). All of these species are represented within populations in the wider area and should they be present it is likely that there will be successful regeneration of the grass and herb species following rehabilitation (Rio Tinto, 2014). The additional clearing is not expected to have a significant impact on Priority Flora species that were recorded within the CPS 3893/2 permit boundary.

The additional areas consist of the following three broad fauna habitats; hills, alluvial plains and drainage lines (Rio Tinto, 2014). These habitats are widespread in the local area and did not contain any significant microhabitats such as caves, waterholes or gorges (Rio Tinto, 2014). There is the potential for several

conservation significant fauna species to utilise the additional areas, however, the proposed clearing will not impact on any significant habitat for these species.

There are several minor drainage lines within the additional area, however, the proposed clearing is not likely to have a significant impact to surface water flow within the local area (GIS Database). The land systems within the additional area are generally not prone to erosion (Van Vreeswyk et al., 2004).

The amendment is not likely to have any significant environmental impacts and the assessment of the clearing principles is consistent with the assessment in clearing permit decision report CPS 3893/2.

Methodology Ecologia (2013)
Rio Tinto (2014)
Van Vreeswyk et al. (2004)
GIS Database:
- Hydrography, linear
- Threatened and Priority Flora
- Threatened Ecological Sites Buffered

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

Comments

There are two Native Title Claims (WC2010/011 and WC2005/003) over the area under application. These claims have 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 no 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, 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 amendment was advertised on 12 May 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the application.

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

4. References

- Ecologia (2013) Greater West Angelas Vegetation and Flora Assessment. Unpublished report for Rio Tinto Iron Ore.
- 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 (2010) Flora and Vegetation Survey for Proposed Exploration Drilling at West Angelas - Native Vegetation Clearing Permit Supporting Report. Unpublished Report dated July 2010. Rio Tinto, Western Australia.
- Rio Tinto (2014) Flora and Vegetation Survey for Hydrological Drilling at West Angelas - Native Vegetation Clearing Permit Supporting Report. Unpublished report dated April 2014.
- 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, Department of Agriculture, Western Australia.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water

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
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:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P2** **Priority Two - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P3** **Priority Three - Poorly Known taxa:** taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4** **Priority Four – Rare taxa:** taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R** **Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable):** taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X** **Declared Rare Flora - Presumed Extinct taxa:** taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1** **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2** **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3** **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to a agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4** **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2** **Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3** **Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4** **Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on

conservation lands.

- P5** **Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999*)

- EX** **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W)** **Extinct in the wild:** A native species which:
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR** **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN** **Endangered:** A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU** **Vulnerable:** A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD** **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 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.

