



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2877/4
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Robe River Mining Co Pty Ltd

1.3. Property details

Property: Miscellaneous Licence 47/75
Miscellaneous Licence 47/223
Miscellaneous Licence 47/321
Local Government Area: Shire of Ashburton
Colloquial name: Wildflower Construction Camp

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
65		Mechanical Removal and Burning	Construction Camp and Associated Infrastructure and Weed Control

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 18 October 2012

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 association is located within the application area (GIS Database):

- 18: Low woodland; mulga (*Acacia aneura*).

Biota Environmental Sciences (Biota) were commissioned by Robe River Iron Associates to undertake a flora and vegetation assessment for the application area. Biota (2008) carried out the survey on 21 March 2008 and have described the vegetation units that were identified within the application area.

- EgAdAsbAbTsp: *Eucalyptus gamophylla* low open mallee woodland over *Acacia dictyophleba*, *A. steedmanii* subsp. *borealis*, *A. bivenosa* tall open shrubland over *Triodia* sp. Shovelanna Hill hummock grassland;

- AdAsbTp: *Acacia dictyophleba* (*A. steedmanii* subsp. *borealis*) tall open shrubland over *Triodia pungens* hummock grassland; and

- AanTm / AanTp / Aan/G: *Acacia aneura* tall open shrubland to low open forest over *Triodia melvillei* / *T. pungens* open hummock grassland or mixed open tussock grassland;

These three vegetation types were mapped as a mosaic, as they occur in small intermingled patches which are difficult to discriminate using aerial photography (Biota, 2008). The clayey plains in the southern half of the study area supported tall open shrublands to low open forests of Mulga (*Acacia aneura*) over a patchy understory dominated by variable amounts of either the hummock grasses *Triodia melvillei* or *T. pungens*, or the tussock grasses *Chrysopogon fallax*, *Digitaria brownii* and/or *Themeda triandra*. Areas bare of perennial ground cover would probably support numerous annual herbs and grasses in good seasons, including species such as *Aristida contorta*, *Enneapogon polyphyllus* and *Sclerolaena cornishiana*. Other associated species recorded from this vegetation included *Acacia pruinocarpa*, *Alternanthera nana*, *Cassia helmsii*, *Cheilanthes sieberi* subsp. *sieberi*, *Enchylaena tomentosa* var. *tomentosa*, *Eremophila lanceolata*, *Goodenia prostrata*, *Rhagodia eremaea* and *Sida platycalyx*.

In addition, approximately 10% of the application area comprised of areas that had been cleared for a previous accommodation village and associated infrastructure, including access tracks and roads. The village and infrastructure areas have been ripped and support mixed open shrublands dominated by *Petalostylis labicheoides* over scattered grasses. Biota (2008) has described this area as 'Disturbed areas'.

Clearing Description Robe River Mining Co Pty Ltd has applied to clear up to 65 hectares of native vegetation within an application area of approximately 140 hectares for the purpose of establishing the Wildflower Construction Camp and Village which forms part of the 320 Rail Project.

Vegetation will be cleared by a bulldozer and grader with its blade down for large areas, and a front end loader and bobcat will be used for smaller areas (Robe River Iron Associates, 2008). The vegetation and topsoil will be collected and stockpiled for use in future rehabilitation (Robe River Iron Associates, 2008). Vegetation clearing by burning may also be undertaken for the purpose of weed control. This involves the possibility of a controlled burn based on discussions with the Department of Environment and Conservation (DEC) to assist in the eradication of *Melinis repens* (Natal Redtop). Natal Redtop is found within the previous accommodation village located adjacent to the northern boundary of the application area and has been fenced off (an area of up to 15 hectares).

Vegetation Condition

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994);

To

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

Comment

A site visit to the application area was undertaken by an Environmental Officer from the Department of Mines and Petroleum on 4 September 2008. The Assessing Officer concurred with the vegetation units and vegetation conditions described by Biota (2008).

CPS 2877/2 was granted on 28 April 2011 by the Department of Mines and Petroleum. The purpose of this amendment was to extend the duration of the permit to 31 July 2016. The clearing permit boundary and area approved to clear under CPS 2877/1 remained unchanged. No clearing had been undertaken under CPS 2877/1 and 2877/2. A third application to amend the permit (CPS 2877/3) was received on 18 April 2012 to allow for an increase in clearing of 29 hectares. However, this application was withdrawn in preparation of a revised amendment application that was subject to the granting of pending tenure (Miscellaneous Licence 47/223).

A revised application to amend the permit was received by the Department of Mines and Petroleum on 17 August 2012. The application requested an increase of 39 hectares to the proposed clearing amount, the addition of weed control to the purpose for which clearing may be done and the addition of Miscellaneous Licence 47/223 to the land on which clearing is to be done. The proposed amendments remain within the same 140 hectare boundary.

3. Assessment of application against clearing principles

Comments

Robe River Mining Co Pty Ltd has applied to increase the amount of clearing authorised from 26 hectares to 65 hectares (i.e. an increase of 39 hectares), add weed control to the purpose for which clearing may be done and add Miscellaneous Licence 47/223 to the land on which clearing is to be done. The permit boundary will remain the same at 140 hectares.

The March 2008 vegetation survey by Biota identified five vegetation types within the application area, all of which were considered to be typical of such habitats (i.e. stony and clayey plains) in the locality (Biota, 2008). While Biota (2008) reported that no Threatened or Priority flora species were recorded during the survey a review of the survey against current environmental information revealed that one of the species recorded, *Rhagodia* sp. *Hamersley*, is a Priority 3 species (Western Australian Herbarium, 2012). Rio Tinto Iron Ore (RTIO) (2012) notes that this species is quite common in the Juna downs area and estimates there are several hundred thousand individuals in a 50 kilometre radius. This species has also been recorded in several other surveys submitted for nearby clearing permit applications. RTIO (2012) adds it is typically associated with Mulga which is mostly found in the southern section of the application area where less disturbance is proposed. This is consistent with the proposed layout of the construction camp which shows that the majority of the proposed infrastructure and clearing is located in the northern portion of the application area (RTIO, 2012). Based on this and given this species is quite common in the local area, the proposed clearing is unlikely to result in significant impacts to this species.

Biota (2008) reported that most of the Priority Flora known from the locality would not be expected to occur within the application area due to an absence of suitable habitat, however, there is a possibility that conservation significant species, *Goodenia lyrata*, may occur on the clayey plains in the southern section of the application area. Biota (2008) recommended further targeted searches for this species where any clearing is to occur beyond the existing disturbed areas. A flora management condition was, therefore, placed on Permit 2877/2 to minimise potential impacts to this species. However, since the time of the survey this species has been changed from a Priority 1 listing to a Priority 3 listing. Although records from the Western Australian Herbarium (2012) indicate this species is uncommon in the Pilbara, RTIO (2012) have recorded this species at 12 locations within the surrounding area. RTIO (2012) adds that only a small fraction of this area has been surveyed and more records of this species are likely to occur within the area in similar habitat. Given this species has been recorded in the area and the availability of habitat outside the application area, it is unlikely the proposed clearing will have a significant impact on this species. The flora management condition placed on Permit 2877/2 has therefore been removed.

Current Priority Flora records within ten kilometres of the application area show there are three additional Priority Flora species which have the potential to occur within the application area (DEC, 2012). These include *Brachyscome* sp. Wanna Munna Flats (S. van Leeuwen 4662) (Priority 1), *Vittadinia* sp. Coondewanna Flats (S. van Leeuwen 4684) (Priority 1) and *Eremophila forrestii* subsp. *Pingandy* (M.E. Trudgen 2662) (Priority 2) with the closest record of *Brachyscome* sp. Wanna Munna Flats (S. van Leeuwen 4662) located approximately one kilometre south of the application area. According to RTIO (2012), *Brachyscome* sp. Wanna Munna Flats (S. van Leeuwen 4662) and *Vittadinia* sp. Coondewanna Flats (S. van Leeuwen 4684) are ephemeral species from

heavy clay zones which regularly flood out and experience significant sheet wash. While there are some mulga communities on hard pan clay in the southern section of the application area, the application area is located on the lower footslopes of the surrounding ranges in a sheet wash area that does not tend to see flooding or pooling of water as it is not a topographical low point. Water which might move through this area in peak flow events flows to lower flatter areas downstream (RTIO, 2012). Therefore, the application area would not regularly receive the significant hydrological inputs required to provide core habitat for these species (RTIO, 2012). *Eremophila forrestii* subsp. *Pingandy* (M.E. Trudgen 2662) (Priority 2) was not listed as Priority Flora at the time of the survey. However, according to RTIO (2012), this species would likely have been detected during the survey as its habit and vegetative characteristics are fairly distinctive and when present typically occurs in significant numbers. Based on the above, it is considered unlikely that these species would occur within the application area.

The assessment of Principle (g) in Clearing Permit Decision Report CPS 2877/2 identified a moderate risk of erosion occurring within the loamy soils of the southern half of the application area due to the absence of hard pebble or ironstone mantles (Van Vreeswyk et al. 2004, Biota, 2008). Potential land degradation impacts as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

The application area is not located within any conservation areas or Department of Environment and Conservation (DEC) managed lands, however, Karijini National Park is located approximately 200 metres north west of the application area at its closest point (GIS Database). DEC advice obtained for CPS 2877/1 considered there to be no significant conservation values at risk due to the proposed clearing, however, control of Natal Redtop (*Melinis repens*) is a significant issue for this site (DEC, 2009). This advice is still considered applicable for the increase in the proposed clearing amount. Potential impacts to biodiversity may be minimised by the implementation of a weed management condition.

Based on the above, the proposed clearing may be at variance to Principle (g) and is not likely to be at variance to Principles (a), (c) and (h).

Current environmental information has been reviewed and the assessment of clearing principles (b), (d), (e), (f), (i) and (j) is consistent with the assessment in Clearing Permit Decision Report CPS 2877/2 (GIS Database).

Methodology Biota (2008)
DEC (2009)
DEC (2012)
RTIO (2012)
Van Vreeswyk et al. (2004)
Western Australian Herbarium (2012)
GIS Database:
- DEC Tenure
- Hydrography, linear
- IBRA WA (Regions - Sub Regions)
- Munjina 50cm Orthomosaic – Landgate 2004
- Pre-European Vegetation
- Public Drinking Water Source Areas (PDWSAs)
- Rangeland Land System Mapping
- Threatened Ecological Sites Buffered
- Threatened and Priority Flora

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

Comments

There is one Native Title Claim (WC11/6) over the area under application (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

According to available databases, there are two 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 and Conservation 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 amendment CPS 2877/4 was advertised on 27 August 2012 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 – Registered with the NNTT

4. References

- Biota (2008) Wildflower Rail Construction Camp: Native Vegetation Clearing Permit Report. Prepared for Robe River Mining Company Pty Ltd. Prepared by Biota Environmental Sciences. June 2008.
- DEC (2009) Biodiversity and conservation advice for land clearing application CPS 2877/1. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Mines and Petroleum (DMP), received 3 February 2009. Environmental Management Branch, Department of Environment and Conservation, Western Australia.
- DEC (2012) NatureMap - Mapping Western Australia Biodiversity, Department of Environment and Conservation. <http://naturemap.dec.wa.gov.au/default.aspx>, viewed 12 July 2012.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Robe River Iron Associates (2008) Documentation Accompanying Clearing Permit Application for CPS 2877/1, Prepared by Robe River Pty Ltd, December 2008.
- RTIO (2012) Further Information provided by RTIO in email correspondence dated 15 June to 8 October 2012.
- Van Vreeswyk A.M.E., Payne A.L., Leighton K.A. and Hennig P. (2004) Technical Bulletin - An inventory and condition survey of rangelands in Pilbara Region, Western Australia, No 92, Department of Agriculture, Government of Western Australia, Perth, Western Australia.
- Western Australian Herbarium (2012) Florabase - The Western Australian Flora. Department of Environment and Conservation. Available online at <http://florabase.dec.wa.gov.au/> Accessed in 12 July 2012.

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 an 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.