



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5246/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Hamersley Iron Pty Ltd

1.3. Property details

Property: Iron Ore (Hope Downs) Agreement 1992, Sub-Lease J771760, Lot 302 on Deposited Plan 50856
Local Government Area: Shire of East Pilbara
Colloquial name: West Angelas Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
6		Mechanical Removal	Access Tracks and Infrastructure Associated with Water Bores

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 15 November 2012

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>Beard vegetation associations have been mapped for the whole of Western Australia. One Beard vegetation association has been mapped within the application area:</p> <p>18: Low woodland; mulga (<i>Acacia aneura</i>) (GIS Database).</p> <p>Large scale biological surveys of the locality have been undertaken by Trudgen (1998), Ecologia (2009) and Rio Tinto (2010) and these overlap parts of the application area. A site visit of the application area was conducted in June 2012 by Rio Tinto and ENV Australia botanists to validate vegetation mapping as well as search for rare flora. Six vegetation units were described within the application area (Rio Tinto, 2012b):</p> <p>Atp-OP: <i>Acacia aptaneura</i>, <i>Acacia pruinocarpa</i> and <i>Corymbia deserticola</i> scattered low trees, over mixed <i>Senna</i> spp. open shrubland/low open shrubland, over <i>Triodia pungens</i> open hummock grassland, over mixed Poaceae spp. very open tussock grassland.</p> <p>Aa-P: Low woodland of <i>Acacia aptaneura</i>, over mixed <i>Senna</i>, <i>Acacia</i> and <i>Ptilotus</i> spp. open shrubland/low open shrubland, over <i>Triodia pungens</i> very open hummock grassland.</p> <p>AsAp-P: Low woodland of <i>Acacia aptaneura</i> and <i>Acacia pruinocarpa</i>, over mixed <i>Senna</i>, <i>Acacia</i> and <i>Ptilotus</i> spp. open shrubland/low open shrubland, over <i>Triodia pungens</i> very open hummock grassland.</p> <p>AaEI-P: <i>Acacia aptaneura</i> low woodland, over <i>Acacia aptaneura</i> and <i>Acacia ayersiana</i> tall open shrubland, over <i>Eremophila latrobei</i>, <i>Acacia</i></p>	<p>Hamersley Iron Pty Ltd has applied to clear up to 6 hectares of vegetation within an application area of approximately 15 hectares for the purpose of access tracks and infrastructure associated with water bores. The clearing is of overgrown access tracks to re-establish access to existing bores and infrastructure such as water pipelines.</p> <p>The application area comprises of two polygons approximately 8.5 kilometres apart. The application area is located approximately 95 kilometres north-west of Newman.</p> <p>Clearing will be undertaken with a dozer. Vegetation will be stockpiled and used in rehabilitation.</p>	<p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).</p>	<p>The vegetation condition was assessed by botanists from Rio Tinto and ENV (Rio Tinto, 2012b).</p>

aneura, and *Rhagodia eremaea* open shrubland, over *Triodia pungens* very open hummock grassland.

AaEf-P: *Acacia aptaneura* tall open scrub, over *Eremophila forrestii* and *Rhagodia eremaea* open shrubland, over *Triodia melvillei* and *Triodia pungens* very open hummock grassland.

AaaTm-OP: *Acacia aptaneura* tall open scrub, over *Eremophila forrestii* and *Rhagodia eremaea* open shrubland, over *Triodia melvillei* and *Triodia pungens* very open hummock grassland.

HDT:Heavily disturbed.

3. Assessment of application against clearing principles

Comments

The application to clear up to 6 hectares of native vegetation for the purposes of access tracks and infrastructure associated with water bores is unlikely to have any significant environmental impacts.

A site visit of the application area was conducted in June 2012 by Rio Tinto and ENV Australia botanists to validate previous vegetation mapping as well as search for Threatened and Priority flora (Rio Tinto, 2012b). Previous large scale biological surveys undertaken by Rio Tinto (2010), Ecologia (2009) and Trudgen (1998) cover most of the application area and were consulted prior to the site visit (Rio Tinto, 2012b). Diversity of the landforms and habitats present within the application area is considered to be within the expected range for the Hamersley subregion (Rio Tinto, 2012b).

No Threatened Flora, Threatened Ecological Communities or Priority Ecological Communities were recorded in the application area during the site visit or have previously been recorded in the application area (Rio Tinto, 2012b; GIS Database).

Two Priority Flora species were recorded within the application area and a separate Priority Flora species was recorded adjacent to the application area (Rio Tinto, 2012b). *Brunonia* sp. Long Hairs (Priority 1) was recorded adjacent to the application area and whilst the species is likely to occur within the application area in successive years, no plants were recorded within the application area during the survey (Rio Tinto, 2012b). *Rhagodia* sp. Hamersley (M. Trudgen 17794) (Priority 3) was recorded at six locations within the application area, with two locations having scattered individuals and the other locations having one to three plants (Rio Tinto, 2012a). *Rhagodia* sp. Hamersley (M. Trudgen 17794) was recorded at multiple sites adjacent to the application area and the species appeared to be scattered through the Mulga habitats present (Rio Tinto, 2012b). While a small number of individuals may be impacted by the proposed clearing, it is not likely to impact on the conservation of the species (Rio Tinto, 2012b). *Aristida lazaridis* (Priority 2) was recorded at four locations within the application area with a total of ten plants (Rio Tinto, 2012a). While current Herbarium records are limited (DEC, 2012), more recent recordings indicate this species occurs across a wider range in the Pilbara (Rio Tinto, 2012a). The species has been recorded in areas with a basalt sediment influence and significant representations of banded mulga woodlands in the West Angelas, Angelo River, Juna Downs and Rhodes Ridge areas (Rio Tinto, 2012a). Potential impacts to *Aristida lazaridis* as a result of the proposed clearing may be minimised by the implementation of a flora management condition.

The broad fauna habitats within the application area are characterised as 'Mulga groves and open mulga woodlands' and 'hummock grasslands'. These habitats are well represented within the locality and Hamersley subregion (Rio Tinto, 2012b).

Biota (2010) reported several mygalomorph spiders of taxonomic interest have been collected from groved Mulga communities on the clay plains. The clay plains habitat supporting groved and non-groved mulga communities is therefore considered locally significant for supporting possible short-range endemic taxa. While groved Mulga communities are present within the study area, the small amount of clearing proposed is unlikely to have a significant impact on the conservation status of short-range endemic fauna for the locality (Rio Tinto, 2012b).

The vegetation of the application area is broadly described as Beard vegetation type 18, which has approximately 99.8% of its pre-European vegetation remaining (Government of Western Australia, 2011; GIS Database). The vegetation under application is not a remnant of vegetation in an area that has been extensively cleared.

There are no permanent watercourses or wetlands within the application area, however, several minor non-perennial watercourses cross the application area (GIS Database). Minor non-perennial watercourses are common in the Pilbara and the small amount of clearing is unlikely to significantly impact any watercourse or wetland.

The application area is not within conservation estate or a Public Drinking Water Source Area (GIS Database).

The assessment of the application identified that the proposed clearing is at variance to Principle (f), is not likely to be at variance to Principles (a), (b), (c), (d), (g), (h), (i) and (j) and is not at variance to Principle (e).

Methodology Biota (2010)
DEC (2012)
Ecologia (2009)
Government of Western Australia (2011)
Rio Tinto (2010)
Rio Tinto (2012a)
Rio Tinto (2012b)
Trudgen (1998)
GIS Database:
- DEC Estate
- Hydrography, Linear
- Pre-European Vegetation
- Public Drinking Water Source Areas (PDWSAs)
- Threatened and Priority Flora
- Threatened Ecological Sites Buffered

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

Comments

The clearing permit application was advertised on 17 September 2012 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received expressing concern about cumulative impacts of clearing. This is addressed in the assessment of the application against the clearing principles and found not to be at variance to Principle (e).

There are two Native Title Claims (WC10/16 and WC10/11) over the area under application (GIS Database). These claims have been registered with the National Native Title Tribunal on behalf of the claimant groups. 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 is one registered Aboriginal Sites of Significance in the vicinity of the application area (Site ID 11224) (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.

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

4. References

- Biota (2010) A Fauna Survey of the Proposed West Angelas Gas-Fired Power Station and Pipeline Corridor. Unpublished Report Prepared by Biota Environmental Sciences for Rio Tinto Iron Ore.
- DEC (2012) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. <http://naturemap.dec.wa.gov.au/default.aspx> (Accessed 7 November 2012).
- Ecologia (2009) West Angelas Multiple Areas Floristic Survey and Desktop Fauna Report. Report Prepared by Ecologia Environment for Rio Tinto, January 2009.
- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). 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 (2010) Flora and Vegetation Assessment of the Proposed 413KP Ballast Loading Facility (BLF-413), West Angelas. Unpublished Report Prepared by Rio Tinto Iron Ore.
- Rio Tinto (2012a) Additional Supporting Documentation - Populations of Priority Flora Species Recorded Within the Study Area and Potentially Impacted by the Proposed Works. Prepared by Rio Tinto, October 2012.
- Rio Tinto (2012b) Statement Addressing the 10 Clearing Principles West Angelas Access to Water Bores and Reopening of Access Tracks. Report Prepared by Rio Tinto, August 2012.
- Trudgen, M.E. (1998) Flora and Vegetation Surveys of Orebody A and Orebody B in the West Angelas Hill Area, an Area Surrounding Them, and of Rail Route Options Considered to Link Them to the Existing Robe River Iron Associates Rail Line. Unpublished Report Prepared for Robe River Iron Associates.

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.