Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3233/2
Permit type: Purpose

1.2. Proponent details

Proponent's name: **Hamersley Iron Pty Ltd**

1.3. Property details

Property: *Iron Ore (Hamersley Range) Agreement Act 1963,* Mineral Lease 4SA (AML 70/4)
Local Government Area: Shire of Ashburton
Colloquial name: Brockman 2

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
27.5		Mechanical	Mineral Exploration

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 17 April 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. Two Beard vegetation associations are located within the application area (Government of Western Australia, 2013; GIS Database):

82: Hummock Grasslands, low tree steppe; snappygum over *Triodia wiseana.*

567: Hummock grasslands, shrub steppe; mulga & kanji over soft spinifex & *T. basedowii*;

A vegetation and flora survey has been conducted over the amended application area by botanists from Rio Tinto Iron Ore Pty Ltd (Rio Tinto, 2012). As a result of these flora surveys seven vegetation types were identified within the application area.

Hilltops and Slopes

AbTw - *Acacia bivenosa*, *Senna glutinosa* subsp. *glutinosa* and *Maireana georgei* low open shrubland over *Triodia wiseana* scattered hummock grasses.

EllApTw - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Eucalyptus gamophylla* open mallees over *Acacia pruinocarpa* scattered shrubs over *Triodia wiseana* and *Triodia brizoides* hummock grassland over *Eriachne mucronata* scattered tussock grasses.

EllHcTw - *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* low open woodland over *Hakea chordophylla* scattered tall shrubs over *Acacia maitlandii* and *Senna glutinosa* subsp. *glutinosa* shrubland over *Triodia wiseana* open hummock grassland.

EllEgTw - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Eucalyptus gamophylla* open mallees over *Acacia maintlandii* and *Acacia monticola* scattered shrubs over *Triodia wiseana* open hummock grassland over *Erianche mucronata* and *Cymbopogon ambiguus* very open tussock grassland.

EllSgTw - *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Senna glutinosa* subsp. *glutinosa*, *Acacia maitlandii* and *Acacia ancistrocarpa* open shrubland over *Triodia wiseana* open hummock grassland over *Eriachne mucronata*, *Paraneurachne muelleri* and *Aristida contorta* very open tussock grassland.

Gorges and Breakaways

EllAmTp - *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia ferriticola* scattered low trees over *Acacia monticola*, *Acacia hamersleyana* and *Dodoneae pachyneura* open shrubland over *Triodia pungens*, *Triodia brizoides* and *Triodia epactia* open hummock grassland.

EllTwEm - *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia ferriticola* and *Corymbia hamersleyana* scattered low trees over *Triodia wiseana* very open hummock grassland over *Eriachne mucronata*, *Themeda triandra* and *Cymbopogon ambiguus* very open tussock grassland.

Clearing Description	Brockman 2 Mineral Exploration Project. Hamersley Iron Pty Ltd (Hamersley) proposes to clear 27.5 hectares of native vegetation within a total boundary area of 186 hectares for the purpose of mineral exploration. The proposal is approximately 50 kilometres north-west of Tom Price in the Shire of Ashburton.
Vegetation Condition	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994) To Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).
Comment	The works at Brockman 2 will include drill hopes, drill pads, drill lines and access tracks. Clearing will be done using the raised blade technique where practicable. Where already cleared tracks require maintenance, the track may be graded using blade down. The vegetation descriptions were derived from descriptions by Rio Tinto (2012). Clearing Permit CPS 3233/1 was granted by the Department of Mines and Petroleum (DMP) on 24 September 2009 and authorised the clearing of 3.5 hectares of native vegetation within an area of approximately 34 hectares.

3. Assessment of application against clearing principles

Comments

Hamersley has applied to amend the permit to increase the amount of clearing authorised from 3.5 hectares to 27.5 hectares, increase the permit boundary from approximately 34 hectares to approximately 186 hectares and extend the permit period by five years. The additional 24 hectares of clearing is for exploration drilling.

A vegetation and flora survey covering the amended permit area was undertaken by botanists from Rio Tinto (2012). The vegetation types found in the amended application area are consistent with those found in the original application area.

The amended application area falls within the buffer zone of the “Themeda grasslands on cracking clays (Hamersley Station)” Threatened Ecological Community (TEC) (Rio Tinto, 2012; GIS Database). No vegetation communities considered representative of this TEC were identified within the application area (Rio Tinto, 2012). There were no Priority Ecological Communities recorded in the amended application area (Rio Tinto, 2012; GIS Database).

The flora and vegetation survey did not identify any Threatened flora species within the amended application area (Rio Tinto, 2012).

The flora and fauna surveys undertaken by Rio Tinto (2012) recorded two additional habitat types; Hilltops and Gorge/breakaways. The Gorge/breakaway habitat has been identified as having relatively greater conservation value for two reasons. Firstly, the flora and vegetation survey recorded three additional Priority flora species within the amended application area, which were mostly found within the gorge/breakaway habitat (Rio Tinto, 2012). These species are *Spartothamnella puberula* (Priority 2), *Sida* sp. Barlee Range (S. van Leeuwen 1642) (Priority 3) and *Acacia bromilowiana* (Priority 4) (Rio Tinto, 2012). The second reason is gorges and breakaways have the potential to provide habitat for the Northern Quoll (Rio Tinto, 2012). With the exception of some access tracks, the proponent has advised that these areas will likely be avoided (Rio Tinto, 2012). Potential impacts to Priority flora and Northern Quoll habitat may be minimised by the implementation of a condition permitting only clearing for access tracks in these areas.

In addition to the Northern Quoll, a desktop search identified 14 other conservation significant fauna species that may potentially occur within the application area (Rio Tinto, 2012). Based on their preferred habitat and distribution, the proposed amendment is not likely to significantly impact these species.

There are no permanent wetlands or watercourses within the amended application area (GIS Database). There are some ephemeral drainage lines within the application area (Rio Tinto, 2012). The flora and vegetation survey did not identify any riparian vegetation growing in association with these drainage lines (Rio Tinto, 2012).

The soil types within the amended application area are consistent with the soils of the original permit area (GIS Database). The proposed additional clearing is not likely to impact on surface water quality nor increase the incidence or intensity of flooding.

The proposed additional clearing of 24 hectares may be at variance to Principle (b). The assessment of the remaining Principles is consistent with the assessment contained in the Decision Report for CPS 3233/1.

Methodology Rio Tinto (2012)
GIS Database:
- Hydrography, linear
- IBRA WA (Regions - Sub Regions)
- Pre-European Vegetation
- Public Drinking Water Source Areas PDWSAs

- Rangeland Land System Mapping
- Threatened and Priority Flora
- Threatened Ecological Sites

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

Comments

There is one Native Title Claim (WC1997/089) over the area under application (GIS Database). This claim has been determined by the Federal Court of Australia. 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 proponents' 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 application was advertised on 9 December 2013 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 – Determined by the Federal Court

4. References

Government of Western Australia (2013) 2012 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 (2012) Flora and Vegetation Survey of Brockman 2 and Brockman 3 - Native Vegetation Clearing Permit Supporting Report. Rio Tinto Iron Ore.

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.