Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4836/2
Permit type: Purpose

1.2. Proponent details

Proponent's name: **Mount Magnet South NL**

1.3. Property details

Property: Mining Lease 59/233
Mining Lease 59/234
Local Government Area: Shire of Mount Magnet
Colloquial name: Kirkalocka Gold Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 20 June 2013

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 (Government of Western Australia, 2013; GIS Database):

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

A Level 2 flora and vegetation survey was conducted over an area of approximately 4,000 hectares by Niche Environmental Services (Niche) between 30 August and 1 September 2011. The survey identified two vegetation units in the application area. Niche (2011) describes these as follows:

1. Vegetation unit W1: Open Low Woodland B to Low Woodland B of *Acacia aneura* var. *aneura*, *A. ramulosa* var. *ramulosa* and *Acacia fuscaneura* over Open Low Scrub B of mixed species over Very Open Low Grass of *Aristida contorta*, *Austrostipa elegantissima* and *Monachather paradoxus* and Very Open Herbs to Herbs of mixed species on sand loam to clay sand loam.

This vegetation unit was defined by an upper storey to five metres of *Acacia* species, with *Acacia aneura* var. *aneura*, *A. ramulosa* var. *ramulosa* and *A. fuscaneura* the most commonly recorded species, and *A. tetragonophylla*, *A. craspedocarpa* and *A. caesaneura* as other widespread species. There was a scattered, emergent canopy to 15 metres of *Callitris columellaris* and *Eucalyptus kochii* subsp. *plenissima*. The midstorey was variable and was generally dominated by *Eremophila* species, with occasional records of *Senna* species. The understorey was variable in terms of species presence and density. The composition and density of the understorey was linked to hydrology, with a clear increase linked to higher levels of soil moisture. The understorey was observed as fitting into three broad types, either grass dominated, Asteraceae dominated or *Calandrinia* dominated, or an intergrade of the three.

2. Vegetation unit W2: Open Low Woodland B to Low Woodland B of *Acacia aneura* var. *aneura*, *A. ramulosa* var. *ramulosa* and *Acacia fuscaneura* over Open Low Scrub B of mixed species over Very Open Low Grass of *Aristida contorta*, *Austrostipa elegantissima* and *Monachather paradoxus* and Very Open Herbs to Herbs of mixed species on clay loam to clay within unchannelled ephemeral drainage lines.

Clearing Description

Mount Magnet South NL (MMS) has applied to clear 94 hectares within an application area of approximately 616.3 hectares (GIS Database). The application area is located approximately 66 kilometres south, south west of Mount Magnet (GIS Database).

The purpose of the application is to expand various components of the Kirkalocka Gold Mine and construct additional infrastructure. MMS intends to reopen the Kirkalocka Gold Mine including expansion of pits, an upstream lift of the existing tailings storage facility, increasing the existing waste landform and constructing a new waste landform, topsoil stockpiles, haul roads, dewatering water bores and access roads (Mount Magnet South, 2012). Clearing will be by mechanical means.

Vegetation Condition	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).
Comment	Most of the application area is occupied by the Kirkalocka Gold Mine (current disturbance footprint is 327 hectares). The mine has been in care and maintenance since 2008 and drilling programs have been undertaken from 2009. The application area is located on Kirkalocka pastoral station and has been subject to grazing. The Short Range Endemic (SRE) survey had an estimated survey sufficiency of 70%. Although considered adequate, it is possible that some SRE species inhabiting the survey area have not been collected (Ecologia Environment (Ecologia), 2011a). Clearing permit CPS 4836/1 was granted by the Department of Mines and Petroleum (DMP) on 5 April 2012 and allowed for the clearing of 74 hectares of native vegetation. An application to amend this permit was received by DMP on 6 May 2013. The application requests an increase in the area authorised to be cleared.

3. Assessment of application against clearing principles

Comments

MMS has applied to increase the area authorised to be cleared from 74 hectares to 94 hectares to allow for additional stockpile areas for mine closure equipment and materials.

As the permit boundary is not being amended, the vegetation and habitat types present within the application area are consistent with those described in clearing permit decision report CPS 4836/2.

The flora and vegetation assessment conducted over the application area (Niche, 2011) did not record any conservation significant flora or Ecologiaal communities. The vegetation to be cleared is not considered to be remnant on a local or regional scale (Government of Western Australia, 2013; GIS Database).

A Short Range Endemic (SRE) species survey identified the conservation significant species Shield-backed Trapdoor Spider (Schedule 1) as occurring within the application area (Ecologia, 2011a). This species was found to be associated with the W2 vegetation complex (Ecologia, 2011b) which is predominantly located in the northern parts of the application area (Niche, 2011). According to (Ecologia, 2011b), numerous burrows of the Shield-backed Trapdoor Spider were found at survey sites outside of the application area. Furthermore, the W2 vegetation complex was well represented in the greater survey area (Niche, 2011). Considering this species has been found in greater numbers outside of the application area and the availability of habitat in the region, it is not considered likely that the clearing of an additional 20 hectares will significantly impact on this species.

The proposed additional clearing is considered unlikely to impact on significant riparian vegetation or water quality or increase the likelihood of soil degradation or flooding (GIS Database).

Current environmental information has been reviewed and the assessment of the clearing principles is consistent with the assessment contained in Clearing Permit Decision Report CPS 4836/2.

Methodology

Ecologia (2011a)
Ecologia (2011b)
Government of Western Australia (2013)
Niche (2011)
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 Ecologiaal Sites

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

Comments

There are two Native Title Claims (WC96/98 and WC 12/5) over the area under application (GIS Database). These claims have been registered with the National Native Title Tribunal on behalf of the claimant group and filed with the Federal Court of Australia respectively. 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 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 amendment was advertised on 20 May 2013 inviting submissions from the public. One submission was received raising no objections.

Methodology

GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims – Registered with the NNTT
- Native Title Claims – Filed with the Federal Court of Australia

4. References

Ecologia (2011a) Mount Magnet South NL Kirkalocka Gold Mine Short Range Endemic Invertebrate Fauna Survey. Unpublished report for Mount Magnet South NL dated December 2011.

Ecologia (2011b) Mount Magnet South NL Kirkalocka Gold Mine *Idiosoma nigrum* Targeted Survey. Unpublished report for Mount Magnet South NL dated December 2011.

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.

Niche (2011) Level 2 Flora and Vegetation Survey at the Mount Magnet South NL Kirkalocka Gold Project. Unpublished report for Mount Magnet South NL dated October 2011.

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 Ecologiaal 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 Ecologiaal 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.