



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4526/2
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Sandfire Resources NL

1.3. Property details

Property: Miscellaneous Licence 52/125
Miscellaneous Licence 52/137
Local Government Area: Shire of Meekatharra
Colloquial name: DeGrussa Copper-Gold Project Borefield

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
30		Mechanical Removal	Borefield Construction and Associated Activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 27 December 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. Two Beard vegetation associations have been mapped within the application area:

- 18:** Low woodland; mulga (*Acacia aneura*); and
- 29:** Sparse low woodland; mulga, discontinuous in scattered groups (GIS Database).

Botanists from Mattiske Consulting Pty Ltd (Mattiske) undertook flora and vegetation surveys over the greater Doolgunna project area in August 2009, and January, March and May 2010 (Mattiske, 2010). These surveys included the application area as well as the proposed sites of the DeGrussa Copper-Gold Mine, an airstrip, accommodation camps and exploration areas (Mattiske, 2010). Seven vegetation types were recorded within the application area (Mattiske, 2010; MBS Environmental, 2011).

S1: Open scrub of *Grevillea berryana*, *Acacia aneura* var. *aneura* and *Acacia kempeana* over *Eremophila incisa*, *Eremophila margarethae*, *Eremophila forrestii* subsp. *forrestii*, *Ptilotus obovatus* and *Ptilotus schwartzii* over *Aristida contorta* and *Monochather paradoxus* on red/brown sandy loam flats with dolerite, ironstone and quartz (rarely) pebbles.

S3: Open scrub of *Acacia aneura* var. *aneura*, *Acacia ramulosa* and *Acacia tetragonophylla* over *Eremophila galeata* and *Senna artemisioides* subsp. *helmsii* over *Chrysopogon fallax* on red/brown clay loam flats.

S8: Open scrub of *Acacia tetragonophylla* and *Acacia ramulosa* over *Eremophila galeata* with occasional emergent *Psyrax latifolia* and *Eucalyptus lucasii* over mixed shrubs and grasses on flats of red/brown clay soils.

LW1: Low woodland of *Acacia aneura* var. *aneura*, *Acacia aneura* var. *microcarpa*, *Acacia pruinocarpa* and *Grevillea berryana* over *Eremophila foliosissima*, *Eremophila forrestii* subsp. *forrestii* and *Eremophila galeata* over *Ptilotus* species and mixed grasses on red/brown sandy loam flats with ironstone pebbles.

LW3: Low woodland of *Acacia aneura* var. *microcarpa*, *Acacia pruinocarpa*, *Acacia sibirica*, *Acacia xanthocarpa*, *Grevillea berryana* with occasional emergent *Corymbia candida* subsp. *dipsodes* and *Corymbia ferritcola* over *Eremophila jucunda* subsp. *jucunda*, *Eremophila forrestii* subsp. *forrestii*, *Eremophila margarethae*, *Ptilotus schwartzii*, *Solanum lasiophyllum* and *Ptilotus obovatus* over mixed grasses on hills and flats with red/brown clay loam soil with ironstone and quartz (rarely).

C4: Scrub of *Acacia aneura* var. *aneura*, *Acacia aneura* var. *conifera*, *Acacia aneura* var. *microcarpa*, *Acacia cyperophylla* over *Psyrax latifolia*, *Eremophila galeata*, *Ptilotus obovatus* and mixed grasses with occasional emergent *Corymbia candida* subsp. *dipsodes* on flow-lines with ironstone and dolerite pebbles on red clay loam.

C5: Woodland of *Eucalyptus victrix* with emergent *Corymbia candida* subsp. *dipsodes* over *Acacia ramulosa*, *Acacia tetragonophylla*, *Acacia xanthocarpa* and *Acacia aneura* var. *microcarpa* over *Isotropis forrestii* and *Eremophila galeata* over mixed grasses on major flow-lines with red/brown clay loam soil.

Clearing Description Sandfire Resources NL has applied to clear up to 30 hectares of native vegetation within an application area of approximately 509 hectares for the purpose of borefield construction and associated activities. The construction and operation of the borefield will provide process water for the processing plant at the DeGrussa Copper-Gold Mine, and includes monitoring bores. The application area is located approximately 130 kilometres north-east of Meekatharra. The vegetation will be cleared using a bulldozer. The vegetation will be stockpiled and used in rehabilitation activities.

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

To

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

Comment

Clearing Permit CPS 4526/1 was granted by the Department of Mines and Petroleum (DMP) on 22 September 2011 and authorised the clearing of up to 18 hectares of native vegetation within an area totalling approximately 69 hectares. On 2 November 2012 Sandfire Resources NL applied to increase the amount of clearing approved to 30 hectares within an increased boundary of 509 hectares to allow for additional borefield development and associated infrastructure.

3. Assessment of application against clearing principles

Comments

The increase in boundary area will include the same habitat and vegetation types (MBS Environmental, 2011). There are no additional vegetation communities or watercourses (GIS Database).

There are no flora or fauna of conservation significance within the proposed amendment application area (MBS Environmental, 2011).

The proposed amendment is not likely to have any significant environmental impacts above those already assessed under Clearing Permit CPS 4526/1. Therefore, the assessment against the clearing principles has not changed and can be found in clearing permit decision report CPS 4526/1.

Methodology MBS Environmental, 2011
GIS Database:
- Hydrography Linear

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

Comments

There are three Native Title Claims (WC99/13, WC99/46 and WC06/2) 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 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 clearing permit application was advertised on 19 November 2012 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 - Determined by the Federal Court
- Native Title Claims - Registered with the NNTT

4. References

- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc).Nedlands, Western Australia.
- Mattiske (2010) Flora and Vegetation Survey of the Doolgunna Project. Unpublished Report Prepared by Mattiske Consulting Pty Ltd for Sandfire Resources NL, June 2010.
- MBS Environmental (2011) Purpose Permit Application: DeGrussa Copper-Gold Project Borefield Native Vegetation Management Plan and Assessment of Clearing Principles. Unpublished Report Prepared by MBS Environmental for Sandfire Resources NL, July 2011.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government.
CALM	Department of Conservation and Land Management, Western Australia.
DAFWA	Department of Agriculture and Food, Western Australia.
DA	Department of Agriculture, Western Australia.
DEC	Department of Environment and Conservation
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DoE), Western Australia.
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia.
DoE	Department of Environment, Western Australia.
DoIR	Department of Industry and Resources, Western Australia.
DOLA	Department of Land Administration, Western Australia.
DoW	Department of Water
EP Act	Environment Protection Act 1986, Western Australia.
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System.
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	Rights in Water and Irrigation Act 1914, Western Australia.
s.17	Section 17 of the Environment Protection Act 1986, Western Australia.
TECs	Threatened Ecological Communities.

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.