



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4526/4
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
Miscellaneous Licence 52/152
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:
35		Mechanical Removal	Borefield construction and associated activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 5 September 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. Two Beard vegetation associations have been mapped within the application area (Government of Western Australia, 2011; GIS Database):

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

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 Miscellaneous Licences 52/125 and 52/137 however did not cover Miscellaneous Licence 52/152. Seven vegetation types were recorded within Miscellaneous Licences 52/125 and 52/137 (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 flowlines with red/brown clay loam soil.

Clearing Description	Sandfire Resources NL – DeGrussa Copper-Gold Project Borefield. The proposal is for clearing 35 hectares with an application area of approximately 537 hectares for the purpose of borefield construction and associated activities on Miscellaneous Licences L52/125, L52/137, L52/152.
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	The vegetation condition was assessed by botanists from Matiske (2010). Clearing Permit CPS 4526/2 was granted by the Department of Mines and Petroleum on 27 December 2012 and allowed for the clearing of 30 hectares of native vegetation. CPS 4526/2 was then amended on 16 May 2013 for the purpose of changing the reporting period and reporting date. An application to amend CPS 4526/3 was received by the Department of Mines and Petroleum on 15 July 2013. The application requests an increase to the clearing permit boundary by including Miscellaneous Licence 52/152 and an increase to the area authorised to be cleared. The clearing is for the construction and operation of the borefield will provide process water for the processing plant at the DeGrussa Copper-Gold Mine. 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.

3. Assessment of application against clearing principles

Comments

Sandfire Resources NL has applied to amend CPS 4526/3 for the purposes of increasing the permit boundary by 1.3 hectares by including Miscellaneous Licence 52/152 and increasing the area authorised to be cleared from 30 hectares to 35 hectares. The inclusion of L52/152 and increase in clearing is for access to an observation monitoring bore as well as additional infrastructure required for the project.

A flora and vegetation survey was carried out over the greater Doolgunna project area by Matiske (2010), which included L52/125 and L52/137, however did not include L52/152. Vegetation community mapping (Matiske, 2010; MRS Environmental, 2011) and aerial photography indicates that it is highly likely that the vegetation and habitat types within L52/152 is consistent with those found within the original application area.

Current environmental information has been reviewed (GIS Database) and the proposed amendment is considered unlikely to have any significant environmental impacts above those described in Clearing Permit Decision Report CPS 4526/3. The assessment of the proposed clearing against the Clearing Principles is consistent with the assessment in Decision Report CPS 4526/3.

Method

Matiske (2010)
MRS Environmental (2011)
GIS Database:
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSAs)
- Rangeland Land System Mapping
- Threatened Ecological Sites
- Threatened and Priority Flora

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

Comments

There are two native title claims over the area under application; WC06/2 and WC99/46 (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*.

According to available databases there are no registered Aboriginal Sites of Significance within the application area (GIS Database). It is the proponents' 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 Environmental Regulation (formally 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

- 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.
- 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 (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.