Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5460/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: AngloGold Ashanti Australia Limited
Postal address: PO Box Z5046 Perth WA 6000
Contacts: Phone: 08 90803675
Fax:
Email: bdarby@anglogoldashanti.com.au

1.3. Property details

Property: Mining Lease 39/366
Colloquial name: Sunrise Dam Airstrip Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
48.2		Mechanical Removal	Airstrip and associated activties

1.5. Decision on application

Decision on Permit Application:
Decision Date:

2. Background

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. One Beard vegetation association is located within the application area (GIS Database):

18: Low woodland; mulga (*Acacia aneura*) (Government of Western Australia, 2011; GIS Database).

Several flora and vegetation studies have been conducted across the Sunrise Dam Gold Mine leases between 1994 and 2010 (Mattiske Consulting Pty Ltd, 1994; 2010). Analysis of these surveys by AngloGold (2013) identified three vegetation types within the application area:

A2: Open Low Woodland to Woodland of *Acacia aneura* var. *aneura, A. aneura* var. *macrocarpa* and *A. ayersiana* over *A. ramulosa* var. *ramulosa, A. tetragonophylla, Eremophila* spp., *Maireana triptera, Solanum lasiophyllum, Ptilotus obovatus* var. *obovatus* and *Eragrostis eriopoda* in sandy-loam soils;

A3: Open Low Woodland of *Acacia ayersiana* and *A. aneura* var. *aneura* over *Grevillea berryana* and *Triodia basedowii* in sandy-loam soils; and

C2: Shrubland of *Hakea preissii, Acacia tysonii, Eremphila miniata, Pimelea microcephala* subsp. *microcephala, Exocarpos aphyllus* and *Pittosporum angustifolium* over *Atriplex vesicaria, Maireana aphylla, Rhagodia drummondii, Cratystyis subspinescens* and *Senna artemisioides* subsp. *filifolia* over *Aristida holathera* var. *holathera* and *Solanum orbiculatum* subsp. *orbiculatum* and low Chenopod species in clay loam soils.

Clearing Description

AngloGold (2013) is proposing to clear up to 48.2 hectares of native vegetation for the purposes of an airstrip and associated activities. This includes the widening of an existing airstrip for safety reasons and the expansion of aerodrome facilities.

The vegetation will be cleared using a bulldozer.

Vegetation Condition

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994);

To:

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

Comment

The application area is located in the East Murchison subregion of Western Australia and is situated approximately 52 kilometres south of the Laverton town site (GIS Database).

The vegetation condition was derived from a vegetation survey conducted by Mattiske Consulting (1994; 2010).

3. Assessment of application against Clearing Principles

Comments

The proposal to clear 48.2 hectares of native vegetation for the purpose of expanding an airstrip and associated activities are unlikely to have any significant environmental impacts. The application area occurs within the East Murchison (MUR1) sub-region of the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (GIS Database). The vegetation types identified within the application area are well represented locally and regionally (AngoGold, 2013, Mattiske Consulting, 1994; 2010, GIS Database;).

There are no Threatened or Priority Flora species located within the application area (Mattiske Consulting, 1994; 2010; AngoGold, 2013). There are no known Threatened Ecological Communities or Priority Ecological Communities recorded within the application area (GIS Database).

There are no permanent watercourses or drainage lines mapped within application area (GIS Database).

The application area is located near an active gold quarry and overlaps an existing airstrip (GIS Database). Analysis of aerial imagery demonstrates that the application area is in a 'good' to 'completely degraded' condition (GIS Database; Keighery, 1994). Two major fauna studies have been conducted in the local area (Ninox, 1994; 2005). No conservation significant fauna or significant faunal habitats have been identified within the application area (Ninox, 1994; 2005).

The Rainbow land system associated with the application area is generally not susceptible to soil erosion (Pringle et al., 1994) and the proposed clearing is not likely to cause a deterioration in the quality of surface or underground water or increase the incidence or intensity of flooding (GIS Database).

Therefore the proposed clearing is not likely to be at variance to any of the clearing Principles.

Methodology

AngloGold (2013)
Keighery (1994)
Mattiske Consulting (1994)
Mattiske Consulting (2010)
Ninox (1994)
Ninox (2005)
Pringle et al. (1994)
GIS Database:
- DEC Tenure
- Evaporation Isopleths
- Groundwater Salinity
- Hydrography, linear
- IBRA WA (Regions - Sub Regions)
- Lake Carey 50cm Orthomosaic – Landgate 2006
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Rangeland Land System Mapping
- Rainfall, Mean Annual
- Threatened and Priority Flora List
- Threatened Ecological Sites Buffered

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

There are is one Native Title claim over the area under application (WC10/18). This claim was registered with the National Native Title Tribunal on 21 January 2011. 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 18 February 2013 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology

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

Officer Alicia Dudzinska

4. References

Anglogold Ashanti Australia Limited (AngloGold) (2013) Sunrise Dam Gold Mine, Aerodrome Upgrade (Airstrip sealing and terminal expansion) Mining proposal addendum to Sunrise Dam Project NOI M39/366. Internal Document, prepared January 2013.

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 Consulting Pty Ltd (Mattiske Consulting) (1994) Sunrise Dam Project Area Flora and Vegetation. Unpublished Internal Document.

Mattiske Consulting Pty Ltd (Mattiske Consulting) (2010) Flora and Vegetation of the Sunrise Dam Mining Area. Unpublished Internal Document.

Ninox Wildlife Consulting (Ninox) (1995) Survey Report – A Vertebrate Fauna Assessment of the Sunrise Dam Project Area. Unpublished Internal Document.

Ninox Wildlife Consulting (Ninox) (2005) Vertebrate Fauna Survey Results 2004 Sunrise Dam Gold Mine. Unpublished Internal Document.

Pringle, H. J. R., Van Vreeswyk, A. M. E. & Gilligan, S. A., 1994, *An inventory and condition survey of the north-eastern Goldfields*, Western Australia, Technical Bulletin No.90. Department of Agriculture Western Australia.

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.