



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5898/4
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: AngloGold Ashanti Australia Limited

1.3. Property details

Property: Mining Lease 39/1116
Local Government Area: Shire of Laverton
Colloquial name: Sunrise Dam Gold Mine

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
380.89		Mechanical Removal	Tailings Storage Facility and associated activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 5 July 2018

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description The vegetation of the application area is broadly mapped as the following Beard vegetation associations:

89: Low woodland; mulga (*Acacia aneura*);
389: Succulent steppe with open low woodland; mulga over saltbush (GIS Database).

Flora and vegetation surveys were conducted over the application area by Mattiske Consulting Pty Ltd in July 2013 and November 2017. The following vegetation associations were recorded within the application area (Mattiske, 2013; 2018):

A1: Low Woodland of *Acacia aneura*, *Acacia craspedocarpa* and *Acacia ayersiana* over *Acacia tetragonophylla*, *Acacia ramulosa* var. *linophylla*, *Acacia burkittii*, *Sida calyxhymentia* and *Ptilotus obovatus* var. *obovatus* on sandy-loam soils.

A2: Open Low Woodland to Woodland of *Acacia aneura* and *Acacia ayersiana* over *Acacia ramulosa* var. *linophylla*, *Acacia tetragonophylla*, *Hakea preissii*, *Eremophila latrobei* subsp. *latrobei*, *Eremophila* spp., *Maireana* spp., *Atriplex vesicaria*, *Senna artemisioides* subsp. *filifolia*, *Solanum lasiophyllum*, *Ptilotus obovatus* var. *obovatus* and *Eragrostis eriopoda* on sandy-loam soils.

A3: Open Low Woodland of *Acacia ayersiana* and *Acacia aneura* over *Grevillea sarissa* subsp. *sarissa*, *Senna artemisioides* subsp. *filifolia*, *Eremophila latrobei* subsp. *glabra* over *Rhagodia drummondii* and denser patches of *Triodia* spp. on sandy-loam soils.

A12: Low Woodland of *Acacia ayersiana*, *Acacia ramulosa* var. *linophylla*, *Acacia aneura* over *Acacia burkittii*, *Acacia tetragonophylla*, over *Sida calyxhymentia*, *Maireana sedifolia*, *Eremophila latrobei* subsp. *glabra*, *Dodonaea lobulata*, *Maireana pyramidata* over *Solanum lasiophyllum*, *Ptilotus obovatus* var. *obovatus* over *Triodia* spp. on red clay-loam soils.

C1: Shrubland of Chenopod species dominated by *Maireana sedifolia*, *Maireana pyramidata*, *Maireana glomerifolia* and *Atriplex vesicaria* with occasional emergent *Acacia ayersiana* and *Acacia aneura* over *Acacia ? kalgoorliensis* and *Hakea preissii* and patches of *Cratystylis subspinescens* on clay loam soils.

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

E1: Low Open Woodland of *Eucalyptus horistes*, *Brachychiton gregorii*, *Acacia aneura*, *Acacia pteraneura*, *Acacia tetragonophylla* over *Duboisia hopwoodii*, *Eremophila longifolia*, *Eremophila margarethae* over *Maireana* spp., *Ptilotus obovatus* var. *obovatus*, *Solanum lasiophyllum*, *Spartothamnella teucriflora* over *Triodia* species on red clay loams.

Clearing Description	Sunrise Dam Project AngloGold Ashanti Australia Limited proposes to clear up to 380.89 hectares of native vegetation within a boundary of approximately 919 hectares, for the purpose of a tailings storage facility and associated activities. The project is located approximately 52 kilometres south of Laverton, within the Shire of Laverton.
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 vegetation condition was derived from a vegetation survey conducted by Mattiske (2013). Clearing permit CPS 5898/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 9 January 2014 and was valid from 1 February 2014 to 1 February 2019. The permit authorised the clearing of up to 275.89 hectares of native vegetation within a boundary of approximately 275.89 hectares, for the purpose of a tailings storage facility and associated activities. CPS 5898/3 was granted on 14 December 2017, amending the area authorised to be cleared from 275.89 hectares to 340.89 hectares, increasing the permit boundary, extending the permit duration and updating the tenure. On 3 May 2018, the Permit Holder applied to amend CPS 5898/3 to increase the area authorised to be cleared from 340.89 hectares to 380.89 hectares, and to increase the permit boundary from 604 hectares to 919 hectares.

3. Assessment of application against Clearing Principles

Comments

AngloGold Ashanti Australia Limited (AngloGold) has applied to amend CPS 5898/3 to increase the clearing area and permit boundary. This is to facilitate a new Tailings Storage Facility (TSF) perimeter road and flood diversion to the east of the TSF, and a new borrow pit.

Several vegetation surveys have been undertaken over the amendment area by Mattiske, which have been consolidated into a single vegetation community map (Mattiske, 2018). According to Mattiske (2018), the vegetation of the amendment area is consistent with the vegetation communities recorded in the existing permit area (Mattiske, 2013), and are considered representative of vegetation in the region. None of the vegetation communities recorded by Mattiske (2013; 2018) are considered Threatened or Priority Ecological Communities. There are no known Threatened or Priority Ecological Communities in the area (GIS Database).

There are no records of Threatened or Priority flora species occurring within the amendment area (DPaW, 2018; GIS Database). The nearest Priority flora records to the amendment area belong to the Priority 1 species *Tecticornia mellarium* (DPaW, 2018). There is limited information on the habitat preference of this species but aerial imagery shows all records within 20 kilometres of the amendment area occurring on the fringes of a large salt lake. Therefore it is not considered likely that this species would occur within the amendment area.

Four Priority 3 flora species and one Priority 4 species are also known to occur within 20 kilometres of the amendment area (DPaW, 2018). The flora survey of the existing permit area did not identify any Threatened or Priority flora species (Mattiske, 2013). Given the vegetation within the amendment area is consistent with the existing permit area, which is well represented in the surrounding area, the proposed amendment is not likely to impact on habitat for Threatened or Priority flora species.

Fauna habitats within the amendment area are likely to be consistent with the existing permit area, based on the similar vegetation communities (Mattiske, 2013; 2018). Fauna surveys undertaken over the greater Sunrise Dam Project (Ninox, 1995; 2005) found that the fauna habitats within the project area are typical of the area, and not considered significant.

According to available databases, there are six conservation significant fauna species known to occur within 20 kilometres of the amendment area (DPaW, 2018). Three of the species are highly mobile bird species that would not be reliant on the amendment area for habitat. The Priority 1 *Branchinella simplex* (WA Fairy Shrimp) is confined to inland waters and would not occur in the amendment area. The amendment area may contain suitable habitat for *Leipoa ocellata* (Malleefowl) and *Sminthopsis longicaudata* (Long-tailed Dunnart). These species were not recorded in the existing permit area (Nixon 1995; 2005) and there are extensive areas of similar habitat outside of the amendment area. Therefore the proposed amendment is not likely to significantly impact on the habitat for these species.

There are no major watercourses within the amendment area (GIS Database). According to Mattiske (2013), minor drainage lines in the local area only flow following sporadic rainfall events, particularly after cyclonic rain. These drainage lines remain dry for most of the year (Mattiske, 2013). The proposed amendment is not likely to

significantly impact on vegetation communities growing in association with minor watercourses.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*. Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision reports CPS 5898/1 and 5898/3.

Methodology Mattiske (2013)
Mattiske (2018)
Ninox (1995)
Ninox (2005)

GIS Database:
- DPaW Tenure
- Hydrography, Lakes
- Hydrography, Linear
- IBRA Australia
- Imagery
- Landsystem Rangelands
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Soils, Statewide
- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities buffers
- Threatened and Priority Flora
- Threatened Fauna

Planning Instrument, Native Title, previous EPA decision or other matter.

Comments

There are no Native Title claims over the area under application (DPLH, 2018). 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 several Aboriginal Sites of Significance located within the application area (DPLH, 2018). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no sites of Aboriginal significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity Conservation and Attractions, 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 21 May 2018 by the the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

Methodology DPLH (2018)

4. References

- DPaW (2018) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. <https://naturemap.dpaw.wa.gov.au/> (Accessed 25 June 2018).
- DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 25 June 2018).
- 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 (2013) Flora and Vegetation Survey of Sunrise Dam Gold Mine Proposed CTD Expansion. Report prepared for AngloGold Ashanti, by Mattiske Consulting Pty Ltd, November 2013.
- Mattiske (2018) Updated Vegetation Communities Map for Sunrise Dam Gold Mine. Map prepared for AngloGold Ashanti, by Mattiske Consulting Pty Ltd, 2018.
- 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.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
DWER	Department of Water and Environmental Regulation, Western Australia
EPA	Environmental Protection Authority, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (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
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DPaW (2017) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T	Threatened species: Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora). Threatened fauna is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the <i>Wildlife Conservation Act 1950</i> . Threatened flora is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the <i>Wildlife Conservation Act 1950</i> . The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.
CR	Critically endangered species Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
EN	Endangered species Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
VU	Vulnerable species Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora)

Notice for Threatened Flora.

- EX Presumed extinct species**
Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.
- IA Migratory birds protected under an international agreement**
Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- CD Conservation dependent fauna**
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- OS Other specially protected fauna**
Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P Priority species**
Species which are poorly known; or
Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.
- P1 Priority One - Poorly-known species:**
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
- P2 Priority Two - Poorly-known species:**
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
- P3 Priority Three - Poorly-known species:**
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
- P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:**
(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.
(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

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.