



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 4747/2  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Saracen Gold Mines Pty Ltd

### 1.3. Property details

Property: Miscellaneous Licence 28/42  
Local Government Area: City of Kalgoorlie-Boulder  
Colloquial name: Carosue Dam Airstrip

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 20 December 2016

## 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 broadly mapped for the whole of Western Australia and are useful to look at vegetation in a regional context. The following Beard vegetation association has been mapped within the application area (GIS Database):

20: Low woodland; mulga mixed with *Allocasuarina cristata* and *Eucalyptus* sp.

Two flora and vegetation surveys have been conducted in the application area. Alexander Holm and Associates (Holm) surveyed most of the application area (264 hectares) on 3 - 5 November 2010 as part of an environmental assessment of the clearing permit application (Holm, 2011). Mattiske Consulting Pty Ltd (Mattiske) conducted a survey along the Carosue Dam access road which traverses the southern portion of the application area (Mattiske, 2010). This survey was conducted for a proposed infrastructure corridor project as part of a joint venture between AngloGold Ashanti and Saracen Gold Mines Pty Ltd and was undertaken on 19 and 23 October 2009 and on 2 - 4 November 2009. A small strip along the southern boundary of the application area has not been surveyed as the Mattiske survey did not extend to the full southern extent of the application area.

Holm (2011) identified five land units and associated sub-units in the application area and described the vegetation in each as follows:

#### 1. Land unit 6 (Sand sheets):

Moderately close to closed tall shrublands dominated by *Acacia effusifolia* with *Enekbatus cryptandroides*, and *Phebalium canaliculatum* dominant in the lower layers but also numerous other shrubs including *Eremophila eriocalyx*, *Leptospermum roei*, *Prostanthera grylloana*, *P. althoferi* ssp. *althoferi*, *Baeckea* sp. Comet Vale and *Homalocalyx thryptomenoides*, occasionally with emergent *Acacia caesaneura* trees or *Eucalyptus leptopoda* ssp. *leptopoda* or *E. aff. concinna* mallees. (Sandplain acacia shrublands (SACS)).

#### 2. Land unit 7b (Loamy plains with acacia – mallee – casuarina shrublands/woodlands):

a) Moderately close to closed tall shrublands dominated by *Acacia caesaneura* and *A. ramulosa*; other common shrubs are *Acacia effusifolia*, *Enekbatus cryptandroides*, *Prostanthera althoferi* spp. *althoferi*, *Eremophila eriocalyx*, *E. metallicorum* and *Phebalium canaliculatum*. (Mulga wanderrie grassy shrublands (MUWA)).

b) Moderately close to closed mallee woodlands of *Eucalyptus oleosa* and *E. cylindrocarpa* with prominent shrub layers commonly *Eremophila ionantha*, *Senna artemisioides* ssp. *petiolaris*, *Acacia hemiteles*, *A. colletioides*, *A. burkittii*, *Exocarpos aphyllus* and *Scaevola spinescens*. (Calcareous plain eucalypt mallee/acacia woodlands/shrublands (CEAS)). Occasionally mallees are absent and formation is a shrubland dominated by *Acacia hemiteles* with other shrubs as above. (SACS).

c) Moderately close to closed woodlands of *Casuarina pauper* with prominent shrub layers dominated by *Acacia hemiteles*, *Senna artemisioides* ssp. *petiolaris*, *Scaevola spinescens*, *Eremophila glabra* and *Templetonia egena*. (Calcyphytic casuarina acacia woodlands/shrublands (CCAS)).

#### 3. Land unit 7c (Loamy plains with acacia – mallee – casuarina shrublands/woodlands over spinifex):

Mallee woodlands of *Eucalyptus oleosa*, *E. concinna* with shrub layers dominated by *Acacia hemiteles*, common others include *Acacia burkittii*, *A. colletioides*, *Eremophila caperata*, *E. ionantha*, *Senna artemisioides* ssp. *petiolaris*,

*Westringia rigida* and *Scaevola spinescens* with a prominent ground layer of *Triodia irritans*. (Sandplain mallee spinifex woodland (SAMA)). Less frequently shrublands dominated by *Acacia hemiteles*, *A. effusifolia* and *A. burkittii* with other shrubs and spinifex as above. (Sandplain acacia spinifex hummock grassland/woodland (SAWS)).

**4. Land unit 15b (Drainage foci – non halophytic domain):**

Closed tall shrubland of *Acacia incurvaneura* to about eight metres, only isolated lower shrubs such as *Eremophila metallicorum*, *E. ericalyx*, *E. decipiens* spp. *decipiens*, *Cryptandra connata* and *Acacia burkittii*. (Drainage tract mulga shrublands (DRMS)).

**5. Land unit 15c (Scalded foci):**

Isolated to very scattered shrubs to about five metres of *Acacia caesaneura* and *A. incurvaneura*; occasional *Acacia burkittii*, *A. ramulosa* ssp. *ramulosa*, *Eremophila metallicorum* and *Melaleuca uncinata*. (Hardpan plain mulga shrublands (HPMS)).

Mattiske (2010) mapped four vegetation communities within the application area described as follows:

**1. A8:** Low woodland of *Acacia ayersiana* and *Eucalyptus leptopoda* subsp. *subluta* over *Phebalium canaliculatum*, *Acacia effusifolia*, *Phebalium tomentella* and mixed shrubs on red-brown sandy clay soils on flats.

**2. E18:** Open low woodland of *Eucalyptus moderata*, *Eucalyptus brachycorys*, *Eucalyptus oldfieldii*, *Eucalyptus rigidula* and *Callitris preissii* over *Phebalium canaliculatum*, *Acacia effusifolia*, *Thryptomene urceolaris*, *Aluta aspera* subsp. *aspera*, *Westringia cephalantha* and mixed shrubs over *Triodia irritans* on red-brown sandy soils on slopes and ridges.

**3. E19:** Low woodland of *Eucalyptus brachycorys* and *Eucalyptus eremicola* over *Acacia oswaldii* and *Acacia ayersiana* over *Senna artemisioides* subsp. *filifolia*, *Acacia hemiteles*, *Westringia rigida* and mixed shrubs on red-brown clay soils on flats.

**4. E20:** Low woodland of *Eucalyptus brachycorys*, *Eucalyptus concinna*, *Eucalyptus cylindrocarpa* and *Eucalyptus eremicola* over *Eremophila caperata*, *Scaevola spinescens*, *Olearia muelleri*, *Westringia rigida* and mixed shrubs over *Triodia irritans* on red-brown sandy clay soils on flats and mid-slopes.

<b>Clearing Description</b>	Carosue Dam airstrip project. Saracen Gold Mines Pty Ltd (Saracen) proposes to clear up to 100 hectares of native vegetation within a total boundary of approximately 337 hectares, for the purpose of constructing an airstrip and associated infrastructure. The project is located approximately 97 kilometres north-east of Kalgoorlie, within the City of Kalgoorlie-Boulder.
<b>Vegetation Condition</b>	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).
<b>Comment</b>	The vegetation condition is derived from a flora and vegetation survey conducted by Alexander Holm and Associates in September 2011 (Holm, 2011).  The proposed clearing is to construct an airstrip and associated infrastructure including an access road and borrow pit. The proposed airstrip will service Saracen's Carosue Dam, Edjudina and Northern mining operations. Vegetation and topsoil will be stockpiled for use in rehabilitation (Saracen, 2011).  Clearing permit CPS 4747/1 was granted by the Department of Mines and Petroleum (DMP) on 19 January 2012 and was valid from 11 February 2012 to 11 February 2017. The permit authorised the clearing of up to 100 hectares of native vegetation within a permit boundary of approximately 337 hectares.  On 22 November 2016, the Permit Holder applied to amend CPS 4747/1 to extend the permit duration to 11 February 2022, as the airstrip construction has been delayed and clearing has not yet commenced. The area of clearing authorised and the permit boundaries remain unchanged.

**3. Assessment of application against clearing principles**

<b>Comments</b>	Saracen Gold Mines Pty Ltd has applied to amend the permit, to extend the permit duration by five years. The size of the area approved to clear (100 hectares) and the permit boundaries remain unchanged.  The amendment to extend the permit duration by five years is unlikely to result in any significant change to the environmental impacts of the proposed clearing (GIS Database).  The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the <i>Environmental Protection Act 1986</i> . Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision report CPS 4747/1.
<b>Methodology</b>	GIS Database: - Hydrography, linear

- Pre-European Vegetation
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities (TEC/PEC) - Boundaries
- Threatened Fauna

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

### Comments

There are no registered Native Title claims over the area under application (DAA, 2016). 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 (DAA, 2016). 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 Regulation, the Department of Parks and Wildlife 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** DAA (2016)

## 4. References

- DAA (2016) Aboriginal Heritage Enquiry System. Department of Aboriginal Affairs. <http://maps.dia.wa.gov.au/AHIS2/> (Accessed 13 December 2016).
- Holm (2011) Environmental Assessment: Proposed Airstrip for Saracen Gold Mines. Report prepared for Saracen Gold Mines Pty Ltd, by Alexander Holm and Associates Natural Resource Management Services, January 2011.
- 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 Infrastructure Corridor GGT / Black Swan Nickel Mine to Carosue Dam Gold Mine. Report prepared for Tropicana Joint Venture and Saracen Gold Mines Pty Ltd, by Mattiske Consulting Pty Ltd, January 2010.
- Saracen (2011) Carosue Dam Airstrip Clearing Permit Application. Saracen Gold Mines Pty Ltd, November 2011.

## 5. Glossary

### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia
<b>DEC</b>	Department of Environment and Conservation, Western Australia (now DPaW and DER)
<b>DEE</b>	Department of the Environment and Energy, Australian Government
<b>DER</b>	Department of Environment Regulation, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia
<b>DRF</b>	Declared Rare Flora
<b>DoE</b>	Department of the Environment, Australian Government (now DEE)
<b>DoW</b>	Department of Water, Western Australia
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia
<b>DSEWPaC</b>	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>TEC</b>	Threatened Ecological Community

## Definitions:

{DPaW (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

- T**            **Threatened species:**  
Published as Specially Protected under the *Wildlife Conservation Act 1950*, 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 Wildlife Conservation Act.
- 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 Wildlife Conservation Act.
- 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.
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- 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 *Wildlife Conservation Act 1950*, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
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- EN**            **Endangered species**  
Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
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- VU**            **Vulnerable species**  
Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
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- 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.
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- 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.
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- 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.
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- 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.
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- 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.