



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4464/2
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Saracen Gold Mines Pty Ltd

1.3. Property details

Property: Mining Lease 39/129
Mining Lease 39/307
Mining Lease 39/639
Mining Lease 39/740
Mining Lease 39/741
Miscellaneous Licence 39/130
Miscellaneous Licence 39/134
Miscellaneous Licence 39/135
Local Government Area: Shire of Menzies
Colloquial name: Deep South and Safari Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
215		Mechanical Removal	Mineral Production

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 14 July 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 mapped for the whole of Western Australia. One Beard vegetation association has been mapped within the application area:

18: Low woodland; mulga (*Acacia aneura*).

A flora and vegetation survey over a 773 hectare area that included the application areas was conducted in Spring 2010 (Alexander Holm and Associates, 2011a). The following vegetation communities were recorded within the survey area:

Vegetation unit 1: Low hills on basalt or metamorphic rocks

Very scattered to scattered (Projected Foliage Cover (PFC) 5 – 15%) mixed low (<1 metre) and mid height (1 – 2 metres) shrublands dominated by *Ptilotus obovatus*, *Senna artemisioides* ssp. *petiolaris* and *Maireana georgei* or dominated by *Ptilotus obovatus*, *Philotheca brucei* ssp. *brucei*, *Eremophila latrobei* and *Sida calyxhymenia*, isolated *Acacia* ssp.

Vegetation unit 2: Lower footslopes on basalt or metamorphic rocks

Scattered (PFC 10 – 15%) mixed height (0.3 – 5 metres) shrublands dominated by *Acacia sibirica*, *Acacia caesaneura*, *Ptilotus obovatus*, *Senna artemisioides* ssp. *petiolaris* and *Dodonaea lobulata* with numerous other low shrubs and occasional *Casuarina pauper* trees or dominated by *Ptilotus obovatus*, *Dodonaea lobulata*, *Maireana georgei* and *Maireana triptera*.

Vegetation unit 3: Low rises on metamorphic rocks

Very scattered to scattered (PFC 5 – 15%) tall shrublands 4 – 6 metres dominated by *Acacia caesaneura*, *Acacia quadrimarginea*, *Acacia ramulosa* with undershrubs *Ptilotus obovatus*, *Eremophila glandulifera*, *Scaevola spinescens* and *Maireana* ssp. or scattered mixed height (0.3 – 3 metres) generally >20% mixed height (0.3 – 3 metres) shrublands dominated by *Dodonaea lobulata*, *Acacia hemi* and *Ptilotus obovatus* with occasional trees of *Acacia incurvaneura*.

Vegetation unit 4: Sloping sand sheets

Moderately close (PFC 20 – 25%) tall shrublands / woodlands up to about 12 metres with numerous co-dominants including *Acacia caesaneura*, *Bursaria occidentalis*, *Dodonaea rigida*, *Acacia ligulata*, *Senna artemisioides* ssp. *petiolaris* and *Ptilotus obovatus*; occasional *Eucalyptus youngiana*.

Vegetation unit 5: Loamy plains with Acacia shrublands

Very scattered to moderately close (PFC 10 – 50%, occasionally more where vegetation is clumped or groved) tall shrublands to about 8 metres dominated by *Acacia caesaneura* and/ or *Acacia incurvaneura* with numerous undershrubs commonly *Acacia ligulata*, *Acacia tetragonophylla*, *Acacia burkittii*, *Ptilotus obovatus*, *Senna artemisioides* ssp. *petiolaris*, *Rhagodia eremaea*, *Scaevola spinescens*, *Solanum lasiophyllum*, *Eremophila glandulifera* and other *Eremophila* spp.

Vegetation unit 6: Hardpan plains

Very scattered to moderately close (PFC 5 – 25%) tall (4 – 9 metres) shrublands dominated by *Acacia incurvaneura* and *Acacia caesaneura*, also *Acacia tetragonophylla*, *Acacia ramulosa* var. *ramulosa* and *Acacia burkittii*; common low shrubs are *Ptilotus obovatus*, *Ptilotus schwartzii*, *Eremophila metallicorum*, *Eremophila glandulifera*, *Maireana planifolia*, *Senna artemisioides* ssp. *petiolaris*, *Rhagodia eremaea*, *Spartothamnella teucriifolia* and *Solanum lasiophyllum*.

Vegetation unit 7: Drainage tracts – unchannelled

Moderately close to closed (PFC 30 – 80%) tall shrublands or woodlands to 10 metres dominated by *Acacia incurvaneura* and/or *Acacia caesaneura* with poorly developed or no lower layers; other isolated common shrubs are *Grevillea stenobotrya*, *Acacia tetragonophylla*, *Eremophila gilesii* ssp. *variabilis*, *Eremophila glandulifera*, *Rhagodia eremaea*, *Ptilotus obovatus* and *Maireana planifolia*. Occasionally less dense *Acacias*.

Vegetation unit 8: Drainage tracts with creeklines

Moderately close to closed (PFC 20 – 80%) tall shrublands (6 – 10 metres) of *Acacia incurvaneura*, *Acacia tetragonophylla*, *Acacia burkittii* with numerous mid and low shrubs *Eremophila metallicorum*, *Senna cardiosperma*, *Rhagodia eremaea* and *Enchylaena tomentosa*.

Rarely moderately close (PFC about 30%) mid height shrublands (1 – 2 metres) dominated by *Acacia burkittii* with undershrubs such as *Ptilotus obovatus*, *Maireana pyramidata*, *Rhagodia eremaea* and *Senna* spp.

Alexander Holm & Associates conducted an enhanced Level 1 vegetation survey on August 31 and September 2, 2012 over the amendment application area (Saracen, 2016). The following vegetation communities were recorded within the additional area:

Vegetation unit 7a: Loamy plains with acacia shrublands

Very scattered to moderately close (PFC 10 – 50%, occasionally more where vegetation is clumped or groved) tall shrublands to about 8m dominated by *Acacia caesaneura* and/or *A. incurvaneura* with numerous undershrubs commonly *Acacia ligulata*, *A. tetragonophylla*, *A. burkittii*, *Ptilotus obovatus*, *Senna artemisioides* ssp. *petiolaris*, *Rhagodia eremaea*, *Scaevola spinescens*, *Solanum lasiophyllum*, *Eremophila glandulifera* and other *Eremophila* spp. (MUWA, occasionally HPMS).

Vegetation unit 16a: Drainage tracts – unchannelled

Moderately close to closed (PFC 30 – 80%) tall shrublands or woodlands to 10m dominated by *Acacia incurvaneura* and/or *A. caesaneura* with poorly developed or no lower layers; other isolated common shrubs are *Grevillea stenobotrya*, *Acacia tetragonophylla*, *Eremophila gilesii* ssp. *variabilis*, *E. glandulifera*, *Rhagodia eremaea*, *Ptilotus obovatus* and *Maireana planifolia* (DRMS). Occasionally less dense acacias (PFC 15 – 20%). (HPMS).

Vegetation unit 16b: Drainage tracts with creeklines

Moderately close to closed (PFC 20 – 80%) tall shrublands (6 – 10m) of *Acacia incurvaneura*, *A. tetragonophylla*, *A. burkittii* with numerous mid and low shrubs *Eremophila metallicorum*, *Senna cardiosperma*, *Rhagodia eremaea* and *Enchylaena tomentosa* (DRMS). Rarely moderately close (PFC about 30%) mid height shrublands (1 – 2m) dominated by *Acacia burkittii* with undershrubs such as *Ptilotus obovatus*, *Maireana pyramidata*, *Rhagodia eremaea* and *Senna* spp. (DRAS).

Clearing Description	Deep South and Safari Project Saracen Gold Mines Pty Ltd proposes to clear up to 215 hectares of native vegetation within a total boundary of approximately 886.92 hectares for the purposes of mineral production. The application area is located approximately 100 kilometres south of Laverton, in the Shire of Menzies.
Vegetation Condition	Good: Structure significantly altered by multiple disturbance; retains basic structure / ability to regenerate (Keighery, 1994); To Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).
Comment	CPS 4464/1 was granted by the Department of Mines and Petroleum on 1 September 2011 and authorised the clearing of 175 hectares within a boundary of approximately 770 hectares. Saracen Gold Mines Pty Ltd has applied to increase the amount of clearing to a total of 215 hectares, increase the permit boundary and extend the permit duration to 31 July 2021.

3. Assessment of application against clearing principles

Comments
Saracen Gold Mines Pty Ltd has applied to increase the amount of clearing authorised by 40 hectares to a total of 215 hectares, increase the permit boundary by approximately 117 hectares and amend the permit expiry

date to 31 July 2021.

According to available databases and flora survey results, there is no Threatened flora, Priority flora, Priority Ecological Communities, or Threatened Ecological Communities identified within the amendment application areas (Saracen, 2016; GIS Database).

Coffey Environments (2011) conducted a Level 2 fauna survey of the application areas and adjacent areas in December 2010. A total of six habitat types have been identified within the amended application area (Saracen, 2016):

- *Acacia* (Mulga) Shrubland on clay soils, termed Dense Mulga;
- *Acacia* Shrubland on rocky soils, termed Open Mulga;
- *Eucalyptus* Woodland;
- Drainage Lines;
- Rocky Outcrops; and
- Disturbed areas of cleared vegetation.

These habitats are typical to those found in the region (Coffey Environments, 2011). A total of 81 taxa were recorded during the Level 2 assessment; these included 18 mammals, 21 reptiles and 42 birds in five major fauna habitats/land systems. No amphibians were recorded. The data collected indicated that there were differences in the number and type of species recorded in each of the fauna habitats with between 19 and 37 species recorded in each habitat. The Eucalyptus Habitat had the highest diversity of species, followed by the Open Mulga habitat. The Drainage Lines had the lowest species diversity.

The fauna assemblage that occurs in the amendment application area is typical of the broader region, when compared to other surveys (Coffey Environments, 2011). The lower diversity of avifauna and amphibians compared to other surveys is likely to reflect the climatic conditions during surveys and lower habitat diversity (Coffey, Environments, 2011).

Clearing of the vegetation within the application areas will impact on the vertebrate fauna in these areas (Coffey Environments, 2011). Direct mortality of small reptiles, amphibians and mammals will occur during the clearing process (Coffey Environments, 2011). Other taxa, particularly larger mammals and reptiles and many birds, will be displaced and are likely to move into adjacent areas which is likely to increase competition for resources (Coffey Environments, 2011). However, it is the opinion of Coffey Environments (2011) that the proposed clearing is unlikely to significantly impact on an ecosystem of conservation significance, or significantly reduce or alter a terrestrial fauna assemblage of conservation significance in a regional context.

The amendment to increase clearing from 175 hectares to 215 hectares within a boundary of approximately 886.92 hectares is not likely to result in any significant change to the environmental impacts of the proposed clearing.

The assessment against the clearing Principles remains consistent with the assessment contained in decision report CPS 4464/1.

Methodology Coffey Environments (2011)
Saracen (2016)

GIS Database:
- Imagery
- Threatened and Priority Flora

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

Comments

There is no Native Title Claim over the areas 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*.

According to available databases 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 Regulation, 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.

The clearing permit application was advertised on 6 June 2016 by the Department of Mines and Petroleum inviting submissions from the public. One submissions was received raising no objections to the amended clearing permit.

4. References

- DAA (2016) Aboriginal Heritage Inquiry System, Government of Western Australia, Department of Aboriginal Affairs, Perth, <<http://maps.dia.wa.gov.au/AHIS2/>> (accessed 27 June 2016).
- Coffey Environments (2011) Vertebrate Fauna Survey: Saracen Mineral Holding Ltd. Safari and Deep South Mining Tenements. Prepared for Saracen Gold Mines Pty Ltd. Unpublished report prepared by Coffey Environments Australia Pty Ltd, Western Australia, June 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.
- Saracen (2016) DCPS 4464/1 (Deep South and Safari) Clearing Permit Amendment (Deep Well Addition) Supporting Information. Saracen Gold Mines Pty Ltd, April 2016.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DPaW and DER)
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DotE	Department of the Environment, Australian Government
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
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 (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.

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.

- 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.
- 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.
- 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.