

# **Clearing Permit Decision Report**

# I. Application details

1.1. Permit application details			
Permit application No.:	4747/3		
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 Miscellaneous Licence 28/54		
Local Government Area:	City of Kalgoorlie-Boulder		
Colloquial name:	Carosue Dam Airstrip		
1.4. Application			
Clearing Area (ha) No. 7 200	Trees Method of Clearing For the purpose of:   Mechanical Removal Airstrip and associated infrastructure		
1.5. Decision on application			
Decision on Permit Application:	Grant		
Decision Date:	1 March 2018		

# 2. Site Information

**Vegetation Description** 

# 2.1. Existing environment and information

# 2.1.1. Description of the native vegetation under application

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.

Previous flora and vegetation surveys conducted by Alexander Holm and Associates (Holm, 2011) and Mattiske Consulting Pty Ltd (Mattiske, 2010), recorded several vegetation associations within the original permit area, and these are outlined in Decision Report CPS 4747/2. A small strip along the southern boundary of the original permit area was not included in these surveys.

Paul Armstrong and Associates (Armstrong, 2016) conducted a flora and vegetation survey over the amendment application area and surrounding areas on 24 – 27 September 2016 (Armstrong, 2016). The survey area covered the whole of Miscellaneous Licence 28/54 (L28/54) and extended a short distance outside the tenement boundaries, to the northeast, southeast and southwest. The survey area did not cross the road which adjoins the northwest boundary of L28/54. The following vegetation associations were recorded within the survey area (Armstrong, 2016):

*Eucalyptus lesouefii* Low Woodland: Low Woodland of *Eucalyptus lesouefii* to 15 metres tall; over Open Low Scrub dominated by *Acacia acuminata*, *Dodonaea lobulata* and *Eremophila oppositifolia*; over Open Dwarf Scrub dominated by *Scaevola spinescens*. Pink-brown sandy clay with considerable calcrete on the surface;

*Eucalyptus oleosa* Tree Mallee: Open Tree Mallee with patches of Tree Mallee, dominated by *Eucalyptus oleosa*, 5 to 10 metres tall; over Scrub variously dominated by *Acacia acuminata*, *Acacia aneura* and *Acacia ramulosa*, 2 to 4 metres tall; over Open Low Scrub; over Open Dwarf Scrub; over Hummock Grass to Mid-Dense Hummock Grass dominated by *Triodia tomentosa*. Red sandy loam to sandy clay loam;

*Eucalyptus salubris* over *Atriplex* Low Woodland: Low Woodland with patches of Low Forest dominated by *Eucalyptus salubris* to 12 metres tall; over patches of Scrub dominated by *Acacia aneura,* 2 to 5 metres tall; over Dwarf Scrub dominated by *Atriplex vesicaria.* Pink sandy clay loam with calcrete;

*Eucalyptus salubris* with scrub Woodland: Low Woodland with patches of Low Forest dominated by *Eucalyptus salubris*, 10 to 15 metres tall; over Open Low Scrub dominated by *Acacia tetragonophylla* and *Eremophila oppositifolia*; over Open Dwarf Scrub dominated by *Ptilotus obovatus*. Red sandy clay loam frequently with calcrete;

*Eucalyptus transcontinentalis* Low Woodland: Open Low Woodland to Low Woodland dominated by *Eucalyptus transcontinentalis* to 10 metres tall; over occasional patches of Open Scrub dominated by *Acacia aneura,* 2 to 3 metres tall; over Open Low Scrub to Low Scrub dominated by *Acacia hemiteles* and *Eremophila caperata*; over Open Dwarf Scrub dominated by *Senna artemisioides* subsp. *filifolia*; over Very Open Hummock Grass dominated by *Triodia tomentosa.* Red sandy clay loam;

	<b>Eucalyptus yilgarnensis Tree Mallee:</b> Open Tree Mallee to Very Open Tree Mallee dominated by <i>Eucalyptus yilgarnensis</i> , 4 to 8 metres tall; over Open Low Scrub to Open Dwarf Scrub dominated by <i>Eremophila caperata</i> or <i>Eremophila scoparia</i> ; over Hummock Grass dominated by <i>Triodia tomentosa</i> . Red sandy clay loam with lateritic gravel.
	<b>Drainage Line Thicket:</b> Thicket to Scrub dominated by <i>Casuarina pauper</i> , 4 to 8 metres tall; over Low Scrub dominated by <i>Dodonaea lobulata</i> and <i>Scaevola spinescens</i> ; over Open Dwarf Scrub. Red sandy clay loam with lateritic and quartz stones.
	Laterite Scree Scrub: Very Open Tree Mallee dominated by <i>Eucalyptus oleosa,</i> 4 to 8 metres tall; over the dominant stratum of Scrub dominated by <i>Acacia aneura,</i> 3 to 6 metres tall; over Low Scrub dominated by <i>Acacia acuminata</i> ; over Open Dwarf Scrub dominated by <i>Westringia rigida</i> ; over Open Hummock Grass dominated by <i>Triodia tomentosa.</i> Red-brown sandy clay loam with lateritic stones 5 to 20 centimetres in diameter;
	<b>Mixed Heath:</b> Scrub dominated by <i>Casuarina pauper</i> to 8 metres tall; over Open Scrub dominated by <i>Acacia aneura</i> , 3 to 5 metres tall; over Open Low Scrub dominated by <i>Senna artemisioides</i> subsp. <i>filifolia</i> ; over Open Dwarf Scrub dominated by <i>Olearia muelleri</i> . Red sandy clay with calcrete and ironstone gravel;
	<b>Mulga Scrub:</b> Scrub with patches of Thicket dominated by <i>Acacia aneura</i> , 2 to 5 metres tall and occasionally up to 8 metres tall; over Low Heath to Dwarf Scrub to Open Dwarf Scrub variously dominated by <i>Eremophila forrestii</i> subsp. <i>forrestii</i> , over Hummock Grass to Open Hummock Grass dominated by <i>Triodia tomentosa</i> . Red sandy loam clay often with ironstone gravel;
	<b>Mulga with other</b> <i>Acacia</i> <b>Scrub:</b> Scrub with patches of Thicket dominated by <i>Acacia aneura</i> with frequent <i>Acacia acuminata</i> or <i>Acacia ramulosa,</i> 2 to 6 metres tall and occasionally up to 10 metres tall; over Dwarf Scrub to Open Dwarf Scrub dominated by <i>Eremophila forrestii</i> subsp. <i>forrestii</i> . Red-orange sandy loam clay with lateritic gravel;
	Atriplex and Frankenia Dwarf Scrub: Open Low Scrub dominated by Eremophila scoparia; over Dwarf Scrub dominated by Atriplex vesicaria and Frankenia fecunda. White sandy clay in the upper areas and saline light brown loamy clay in the lower areas, all with white quartz; and
	<b>Rehab Scrub:</b> Scrub dominated by <i>Acacia aneura</i> , 1 to 3m tall; over Open Dwarf Scrub. Orange sandy loam with much lateritic gravel.
	The most common vegetation association was Mulga Scrub, accounting for approximately 42 percent of the survey area (Armstrong, 2016).
Clearing Description	Carosue Dam airstrip project. Saracen Gold Mines Pty Ltd (Saracen) proposes to clear up to 200 hectares of native vegetation within a total boundary of approximately 608 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.
Vegetation Condition	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994);
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	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).
Comment	The vegetation condition is derived from a flora and vegetation survey conducted by Paul Armstrong and Associates in September 2016 (Armstrong, 2016).
	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, 2017).
	Clearing permit CPS 4747/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety (DMIRS)) 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.
	CPS 4747/2 was granted on 20 December 2016, extending the permit duration to 11 February 2022, as the airstrip construction had been delayed and clearing had not yet commenced. The area of clearing authorised and the permit boundaries remained unchanged.
	On 13 November 2017, the Permit Holder applied to amend CPS 4747/2 to increase the area of clearing authorised to 200 hectares and increase the permit boundary to include the whole of tenement L28/54.

# 3. Assessment of application against Clearing Principles

#### Comments

Saracen Gold Mines Pty Ltd has applied to amend the permit, to increase the area of clearing authorised by 100 hectares, and to increase the permit boundary by approximately 271 hectares. The amendment is required, as the proposed design and location of the airstrip has been changed after hydrological investigations determined that the previously proposed airstrip site was unsuitable (Saracen, 2017).

The amendment application area is separate from the original permit area, on Miscellaneous Licence 28/54, which is located approximately 1.2 kilometres to the northeast of the previously granted area, at its nearest point.

The permit area is located within the Eastern Murchison subregion of the Murchison Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). The Eastern Murchison subregion is characterised by its internal drainage, salt lake systems, broad plains of red-brown soils, breakaway complexes and extensive red desert sandplains (CALM, 2002). Vegetation is dominated by Mulga woodlands, often rich in ephemerals; hummock grasslands, saltbush shrublands and *Halosarcia* shrublands (CALM, 2002).

The amendment represents a substantial increase in both the amount of proposed clearing and the permit boundary. The total area of proposed clearing will double to 200 hectares, while the permit boundary will almost double, increasing from approximately 337 hectares to approximately 608 hectares.

The amendment application area is broadly mapped as Beard vegetation association 20, which is consistent with the original permit area (GIS Database). Approximately 99% of the pre-European extent of this vegetation association remains uncleared at both the state and bioregional level (Government of Western Australia, 2016). Hence, the vegetation proposed to be cleared does not represent a significant remnant of native vegetation in an area that has been extensively cleared.

The amendment area has suffered some previous disturbance from historical mining and grazing activities, however the majority of the vegetation in the amendment area was considered to be in Excellent condition on the Keighery scale (Armstrong, 2016).

Armstrong (2016) conducted a flora and vegetation survey over the amendment application area and surrounding areas on 24 – 27 September 2016. The survey recorded a total of 110 native plant taxa, from 24 families, the majority of which were considered to be common and widespread in the region (Armstrong, 2016; Saracen, 2017). Analysis of aerial imagery indicates that the vegetation associations and landform types occurring within the amendment area are similar to those occurring within the original permit boundary, and are well represented in the region (GIS Database). The areas proposed to be cleared are unlikely to represent an area of higher biodiversity than surrounding areas.

No Threatened flora, Threatened Ecological Communities or Priority Ecological Communities have been recorded within or in close proximity to the permit area (GIS Database), and none were found during any of the flora and vegetation surveys conducted over the area (Armstrong, 2016; Saracen, 2017). A desktop survey identified 22 Priority flora species with the potential to occur within the amendment area based on known distributions, however no Priority flora has been recorded by any of the flora surveys undertaken over either the original permit area or the amendment area (Armstrong, 2016; Saracen, 2017).

No weed species were recorded during the survey of the amendment area (Armstrong, 2016). However, weeds have the potential to out-compete native flora, and may significantly reduce biodiversity. Continued implementation of the existing weed management condition may minimise the risk of the introduction or spread of weeds.

Level 1 fauna surveys were conducted over the original clearing permit area and adjacent areas during 2009 and 2010 (Saracen, 2017). The fauna and fauna habitats occurring within the application area are considered to be typical of the region, and are well represented in surrounding areas (Saracen, 2017; GIS Database). Although the proposed additional clearing will impact on fauna habitats at a local scale, it is not likely to have a significant impact on fauna or fauna habitats in a regional context.

Several fauna species of conservation significance have the potential to occur within the application area, based on known distributions and available habitats (Saracen, 2017). However, the majority of these species are highly mobile and unlikely to be significantly impacted by the proposed additional clearing.

Malleefowl (*Leipoa ocellata*) (listed as Vulnerable under the *Wildlife Conservation Act 1950* and the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)) are known to occur in the local area, with occasional opportunistic sightings of Malleefowl occurring within three kilometres of the proposed airstrip, and Malleefowl tracks recorded in close proximity to the application area (Saracen, 2017). A targeted search of an area immediately to the west of the proposed airstrip in August 2017, identified one active and three inactive Malleefowl mounds within 2.5 kilometres of the proposed airstrip (Saracen, 2017).

A targeted search for Malleefowl mounds at the proposed airstrip site, was conducted in March 2017 by walking transects at 30 metre spacings in an east-west direction across the entire area of tenement L28/54 (Saracen, 2017). Two inactive Malleefowl mounds were recorded within L28/54, and both mounds were located within the proposed airstrip disturbance footprint (Saracen, 2017). Options for realigning the airstrip to avoid existing Malleefowl mounds were explored, but were not feasible due to safety concerns with nearby high terrain (Saracen, 2017).

In light of the proposed impact to Malleefowl mounds, Saracen referred the project to the (Federal) Department of the Environment and Energy (DEE) under the EPBC Act, and DEE subsequently determined that the project did not require environmental impact assessment under the EPBC Act (DEE, 2017; Saracen, 2017).

The proposed clearing will result in the localised loss of Malleefowl foraging habitat, however, substantial areas of similar habitat occur in surrounding areas (Saracen, 2017; GIS Database). Suitable habitat for breeding is likely to be much more restricted than the available foraging habitat, due to specific requirements for mound construction. The clearing of Malleefowl mounds or within close proximity to Malleefowl mounds, should be avoided wherever possible. No active Malleefowl mounds have been recorded within the clearing permit area (Saracen, 2017), however, it should be noted that old mounds may be reactivated and new mounds may be established during each breeding season. Potential impacts to Malleefowl as a result of the proposed clearing, may be minimised by the implementation of a fauna management condition prohibiting disturbance of active mounds during the breeding season (September to January).

The majority of the amendment area is broadly mapped as occurring within the Kirgella land system, which is consistent with the original permit area. A very small part of the amendment area is mapped as the Moriarty land system (GIS Database). These land systems may be susceptible to erosion if vegetaion cover is removed, however, the amendment area occurs on sandy soils and the topography is relatively flat (Saracen, 2017; GIS Database), therefore any increase in soil erosion is likely to be minimal. The proposed clearing for an airstrip and associated infrastructure is unlikely to result in appreciable land degradation.

There are no Public Drinking Water Source Areas, within or in close proximity to the application area (GIS Database). There are no permanent watercourses or wetlands within the amendment area (GIS Database). One minor seasonal drainage line occurs within the amendment area (GIS Database). Clearing of riparian vegetation should be avoided, where possible, however, given the ephemeral nature of the drainage line, any impacts to vegetation growing in association with watercourses are expected to be minimal. The climate of the region is arid (CALM, 2002) and ephemeral drainage lines are only likely to flow briefly following significant rainfall events. Localised flooding may occur following heavy rainfall, however, the additional clearing is unlikely to have any significant impact on surface or groundwater quality, or on the incidence or intensity of flooding.

There are no conservation areas within or in close proximity to the application area (GIS Database). The nearest DBCA (formerly DPaW) managed land is the Bullock Holes Timber Reserve, located approximately 50 kilometres southwest of the application area, at its nearest point (GIS Database). The proposed additional 100 hectares of clearing is unlikely to have any impact on any conservation areas.

The proposed amendment 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.510 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 4747/1 and 4747/2.

#### Methodology /

Armstrong (2016) CALM (2002) DEE (2017) Government of Western Australia (2016) Saracen (2017)

GIS Database:

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

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

Comments

The amendment application was advertised on 11 December 2017 by the Department of Mines, Industry Regulation and Safety (DMIRS) inviting submissions from the public. One submission was received in relation to this application, raising concerns over potential impacts to Aboriginal Sites of Significance.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2018). 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.

There is one registered Native Title claim (WC2017/001) over the area under application (DPLH, 2018). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. 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*.

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.

It is noted that the proposed clearing may impact on Malleefowl (*Leipoa ocellata*), which is a protected matter under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent referred the project to the (Federal) Department of the Environment and Energy (DEE) for environmental impact assessment under the EPBC Act. In May 2017, the DEE determined that the project was not a controlled action under the EPBC Act (DEE, 2017).

Methodology DPLH (2018)

#### 4. References

Armstrong (2016) Vegetation Survey and Rare Flora Search of the Carosue Dam Airstrip Project. Report prepared for Saracen Gold Mines Pty Ltd, by Paul Armstrong and Associates, November 2016.

- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DEE (2017) Referral Decision not controlled action. Saracen Gold Carosue Dam Aerodrome, WA (EPBC 2017/7925). Department of the Environment and Energy, 17 May 2017.
- DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 8 January 2018).
- Government of Western Australia (2016) 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2016. WA Department of Parks and Wildlife, Perth.
- 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 (2017) Carosue Dam Aerodrome CPS 4747/2 Clearing Permit Amendment Supporting Information L28/42 and L28/54. Saracen Gold Mines Pty Ltd, November 2017.

# 5. Glossary

#### Acronyms:

ВоМ	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 DSEWPaC DWER EPA EP Act EPBC Act GIS ha IBRA	Department of Parks and Wildlife, Western Australia (now DBCA) Department of Sustainability, Environment, Water, Population and Communities (now DEE) Department of Water and Environmental Regulation, Western Australia Environmental Protection Authority, Western Australia Environmental Protection Act 1986, Western Australia Environment Protection and Biodiversity Conservation Act 1999 (Federal Act) Geographical Information System Hectare (10,000 square metres) 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	Rights in Water and Irrigation Act 1914, 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 *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 1950*.

*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* 1950.

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.

#### Priority species

Ρ

# 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.