



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 747/2  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: St Ives Gold Mining Co Pty Ltd

### 1.3. Property details

Property: M15/300  
M15/575  
Local Government Area: Shire of Coolgardie  
Colloquial name: Cave Rocks

### 1.4. Application

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

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard vegetation association 9: Medium woodland; coral gum ( <i>E.torquata</i> ) & Goldfields blackbutt ( <i>E.lesouefii</i> )	Two vegetation units exist within the proposed area for clearing; Salmon gum woodland and Rocky outcrop (Jims Seeds, Weeds & Trees, 2005). The former is representative of an open <i>Eucalyptus</i> tall woodland with saltbush/bluebush understorey. The dominant species found is <i>Eucalyptus salmonophloia</i> , with understorey comprising species from the <i>Acacia</i> , <i>Maireana</i> , <i>Atriplex</i> and <i>Eremophila</i> genera. Within the unit classified as Rocky outcrop, the vegetation is representative of <i>Eucalyptus</i> woodland upon a rocky outcrop, with saltbush/bluebush understorey. The dominant species found is <i>Eucalyptus torquata</i> , with understorey comprising <i>Ptilotus obovatus</i> , <i>Westringia rigida</i> , <i>Eremophila pustulata</i> , <i>Grevillea acuaria</i> and <i>Solanum nummularium</i> (Jims Seeds, Weeds & Trees, 2005).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The proposal is for the clearing of 17 hectares of native vegetation within the Kambalda Timber Reserve. The area proposed to be cleared surrounds an excavated pit and waste dump used for the purposes of mineral production. Historic exploration activity is evident throughout the survey area. Although this has resulted in obvious vegetation disturbance, particularly in the areas immediately next to historic mine workings, Jims Seeds, Weeds & Trees (2005) rate the condition of the vegetation as 'very good' (Keighery, 1994). Photographs of the surveyed area also indicate this to be the case.  Clearing Permit 747/1 for the purpose of mineral production was originally granted on 27 October 2005. The Permit has now been amended (CPS 747/2) to extend the duration of the permit until 31 August 2007. The Cave Rocks Project was changed from an Underground Mining Proposal to an Open Pit/ Underground Mining Proposal, resulting in unexpected delays in approval times. The amendment to extend the permit duration will allow the proponent to accommodate these unexpected delays.

## 3. Assessment of application against clearing principles

### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

#### Comments

The Cave Rocks area has historically been mined using open cut methods and currently contains an open pit and waste dump (CALM, 2005). Jims Seeds, Weeds & Trees (2005) advise that the level of biological diversity within the proposed area to be cleared is low, attributed to a combination of intense grazing pressure and historic mineral exploration activities. The vegetation present within the area to be cleared is representative of open *Eucalyptus* woodland which has extensive coverage within the regional area (Payne et al, 1998 as cited in Jims Seeds, Weeds & Trees, 2005). The level of disturbance across the area to be cleared is high, with the vegetation immediately surrounding the pit and waste dump sparse and degraded (Jims Seeds, Weeds & Trees, 2005). This was confirmed during a site inspection by the assessor on 7 September 2005. Considering the historical mining and pastoral activities it is unlikely that the biodiversity at the site of this proposal will be

considered outstanding, or of a higher diversity than in the bioregion, the Shire of Coolgardie or the local area.

**Methodology** Site visit (2005).  
Payne et al (1998).  
CALM (2005).  
Jims Seeds, Weeds & Trees (2005).  
GIS Database:  
- Lake Lefroy 1.4m Orthomosaic DLI 02

**(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.**

**Comments**

A vertebrate fauna survey of the Kambalda Timber Reserve was conducted by Ninnox Wildlife Consulting in 1993, during which the Peregrine Falcon (*Falco peregrinus*), a Schedule 4 species was observed. However, three other declared species may occur based on distribution patterns and records from the Western Australian Museum. The Crested Shrike-tit (*Falcunculus frontatus leucogaster*, Priority 4) and Carpet Python (*Morelia spilota imbricata*, Schedule 4) are strong possibilities for the reserve, whilst the Chuditch (*Dasyurus geoffroyi*, Schedule 1) is an extremely remote possibility (Ninnox Wildlife Consulting, 1993).

Despite the patches of high-level disturbance within the reserve from historic mining activities, the fauna assemblage of the reserve is relatively intact. The habitat surveyed is not of local or regional significance, however, due the intact nature of the reserve's unlogged woodlands in relation to historical clearing in the Eastern Goldfields, the area may be of significance to local fauna populations (Ninnox Wildlife Consulting, 1993).

As the scale of the proposed clearing is small (17 hectares within a 1323 hectare timber reserve) and the vegetation present within the area to be cleared has extensive coverage within the regional area, it is unlikely that the vegetation to be cleared is a significant habitat for the above listed species. Consequently, it is unlikely that the proposal is at variance to this principle.

The discussion above adequately reflects the existing fauna habitat value of the application area and as such CALM concurs with the comments (CALM, 2005a).

**Methodology** CALM (2005a).  
Ninnox Wildlife Consulting (1993).  
GIS Databases:  
- Pre-European Vegetation - DA 01/01.

**(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.**

**Comments**

A Priority 1 species (*Acacia websteri*) is located approximately 8.2km west of the proposal, though this would not appear to be a serious conservation issue as it is found within a different vegetation unit than the current proposal. Flora surveys were conducted in 1992 and 2001 throughout the Kambalda Nature Reserve, a 'C' Class reservation located directly west of the area under application. One Priority 3 species (*Eremophila pustulata*) was identified during these surveys (Mattiske & Associates 1992 & 2001 as cited in Jims Seeds, Weeds & Trees, 2005), however, it is no longer a priority species and as such is considered 'not threatened' (Jims Seeds, Weeds & Trees, 2005). A flora survey was conducted in June 2005 during which time no Declared Rare Flora (DRF) or Priority Flora species were observed (Jims Seeds, Weeds & Trees, 2005). Previous surveys have recorded only two threatened flora species from the vicinity of Lake Lefroy; *Pityrodia scabra* (DRF) and a Priority 3 species, *Acacia kalgoorliensis* (HGM, 1998). The latter is no longer a priority species, and as such is considered 'not threatened' (Jims Seeds, Weeds & Trees, 2005). The consultant advised that the vegetation immediately surrounding the pit and waste dump was degraded and sparse, and that the vegetation unit across the surveyed area (*Eucalyptus* woodland) has extensive coverage in the regional area. It is unlikely that the proposed clearing will impact on significant flora, and therefore is not likely to be at variance to this principle.

**Methodology** CALM (2005).  
Jims Seeds, Weeds & Trees (2005).  
Jims Seeds, Weeds & Trees (2005a).  
Mattiske Consulting (2001).  
WMC Resources Ltd (1992).  
Gold Fields Australia Pty Ltd (2004).  
GIS Databases:  
- Pre-European Vegetation - DA 01/01.  
- Declared Rare and Priority Flora List - CALM 01/07/05.

**(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.**

**Comments**

There have been no known Threatened Ecological Communities (TEC's) identified within the area subject to be cleared. The nearest known TEC is approximately 102 km of the proposed area, therefore the clearing proposal is not likely to be at variance to this principle.

**Methodology**

GIS Databases:  
- Threatened Ecological Community Database - CALM 12/4/05.

**(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.**

**Comments**

The State Government is committed to the National Objectives Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment, 2002; EPA, 2000). The vegetation of the site is a component of Beard Vegetation Associations 9 and 936 (Hopkins et al., 2001) of which approximately 250,000 (~99.7%) and 906,000 hectares (~89.2%) of the pre-European extent respectively remains (Shepherd et al., 2001). While the benchmark of 15% representation in conservation reserves (JANIS Forests Criteria, 1997) has not been met for Beard vegetation associations 9 and 936, approximately 99.7% and 89.2% of the pre-European extent respectively remains and it is therefore of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment, 2002).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	% in reserves/CALM-managed land*
IBRA Bioregion - Coolgardie Shire of Coolgardie Beard vegetation associations	12,917,718	12,719,084	98.5%	Least concern	9.9%
- 9	250,894	250,183	~99.7%	Least concern	3.0%
- 936	1,016,210	906,826	~89.2%	Least concern	2.3%

\* Shepherd et al. (2001)

\*\* Department of Natural Resources and Environment (2002)

**Methodology**

Shepherd et al. (2001).  
Hopkins et al. (2001).  
EPA (2000).  
JANIS Forests Criteria (1997).  
Department of Natural Resources and Environment (2002).  
GIS Databases:  
- Pre-European Vegetation - DA 01/01.  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.

**(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**

**Comments**

No significant watercourses or wetlands are present within the proposed clearing area. A minor, non-perennial watercourse runs through the area under application, extending as far as Lake Lefroy located 7.9km east of the project area. As a small area within a much larger timber reserve, it is unlikely that the vegetation to be cleared acts as a significant buffer for this lake system. There are no vegetation types within the proposed clearing area that are typical of wetlands or watercourses within the region, therefore the proposal is not at variance to this principle.

**Methodology**

GIS Database:  
- Hydrography, linear - DOE 01/02/04.  
- Topographic Contours, Statewide - DOLA 12/09/02.  
- Lake Lefroy 1.4m Orthomosaic DLI 02

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments**

The proposal is located within the Great Western Plateau, a topographically monotonous surface of low relief and gradients between 1-2% (Beard, 1972 as cited in HGM, 1998). The major soil type across the proposed area is a red sandy loam (Newbey, 1984 as cited in HGM, 1998), therefore based on surface water hydrology

and topography, it would not appear to be in a high risk soil erosion area.

DAWA (2005) advise that from the interpretation of aerial photography, two land units appear to occur within the area proposed to be cleared; a) low rises; and b) loamy plains.

Given surface water is managed effectively and the site is rehabilitated post-mining, the clearing of this land does not present a soil erosion risk. St. Ives have made commitments to rehabilitate and manage surface water so as to reduce any potential for erosion that may be associated with clearing vegetation across this site (Roseby, 2005). With low average annual rainfall (242mm) and high annual evaporation rates of 2,410mm (HGM, 1998), recharge to groundwater would be low, effectively minimising the risk of salinisation. Similarly, residency time for locally ponded waters would be limited, effectively reducing the risk of waterlogging across the area to be cleared. Any clearing is unlikely to increase salinisation, either on-site or off-site, as saline and subsaline soils are common throughout the region (HGM, 1998). Wind roses for Kalgoorlie indicate low wind speeds (HGM, 1998), which would minimise the risk of wind erosion should the vegetation be cleared. Given appropriate measures are taken to prevent land degradation, the proposal is unlikely to be at variance to this principle.

**Methodology** Stuart Roseby, Environmental Manager, St. Ives Gold Mining Co Pty Ltd (pers comm. 07/09/2005).  
DAWA (2005).  
HGM (1998).  
GIS Database:  
- Hydrography, linear - DOE 01/02/04.

**(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.**

**Comments**

The area applied to be cleared (17 hectares) is located within the Kambalda Timber Reserve, a 1323 hectare 'C' Class reservation. The Kambalda Nature Reserve, also a Class 'C' reservation is situated approximately 100 metres from the eastern boundary of the area proposed to be cleared. Extensive open cut operations exist adjacent to the area under application, hence, the vegetation proposed to be cleared may provide a buffer between the mine site and adjacent nature reserve. However, as the area to be cleared is relatively small and the vegetation associations within it are regionally well represented, it is unlikely that the area under application serves as a significant ecological linkage to the adjacent nature reserve.

CALM (2005) advise that although no critical environmental values or significant biodiversity issues are likely to be associated with this proposal, it is recommended that the clearing permit be issued conditional upon CALM and Conservation Commission approval of the NOI document in relation to the final detailed clearing footprint, landform design, rehabilitation, offsets and other related environmental management measures.

The Department of Industry and Resources confirm that this proposal will be referred to both CALM and the Conservation Commission for comment prior to the approval of any NOI associated with this project. This is standard procedure for any projects located within a CALM managed land (Stingemore, 2005).

**Methodology** Matt Stingemore, Environmental Officer, Department of Industry and Resources (pers comm. 26/10/2005).  
CALM (2005).  
GIS Databases:  
- CALM Managed Lands and Water - CALM 1/07/05.  
- Lake Lefroy 1.4m Orthomosaic DLI 02

**(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.**

**Comments**

The area to be cleared does not fall within a Public Drinking Water Source Area (PDWSA) or PDWSA Protection Zone. Some minor, non-perennial water courses can be found within the vicinity of the area under application, however, these are unlikely to be impacted upon by any clearing activity. St. Ives have made commitments to manage surface water during the development of this project, so as to reduce the potential for impacts on water quality (Roseby, 2005).

Groundwater salinities of the area range from 14,000mg/L to 35,000mg/L and the quality of groundwater will not be impacted upon by the clearing activity. The area of native vegetation to be cleared is relatively small and unlikely to have an impact on regional groundwater considering the magnitude of the regional Yilgarn-Goldfields groundwater province (>290,000 sq km) and the extent of native vegetation remaining in the Coolgardie Bioregion (~98%)(Shepherd et al, 2001).

The proposal raises no water quality issues and is therefore unlikely to be at variance to this principle.

**Methodology** Shepherd et al. (2001).  
Stuart Roseby, Environmental Manager, St. Ives Gold Mining Co Pty Ltd (pers comm. 07/09/2005).

GIS Databases:

- Groundwater Salinity, Statewide - 22/02/00.
- Hydrography, linear - DOE 01/02/04.
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.
- Groundwater Provinces - WRC 98.
- Public Drinking Water Supply Areas (PDWSAs) - DOE 28/4/05.
- PDWSA Protection Zones -DOE 7/1/04.

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

Comments

The survey area is not in a natural floodplain and therefore the proposed clearing is unlikely to form a catchment area sufficiently large enough to increase the incidence of flooding (Jims Seeds, Weeds & Trees 2005; DAWA 2005). The broad valleys and lake systems of the region compensate and sustain floodwaters. Given the relatively small area to be cleared, it is unlikely that the proposal is at variance to this principle.

Methodology

DAWA (2005).  
Jims Seeds, Weeds & Trees (2005).  
GIS Databases:  
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

There are two Native Title Claims over the area under application; WC98/027 AND WC99/029. These claims have been registered with the National Native Title Tribunal on behalf of the Widji and Central West Goldfields claimant groups respectively. However, the mining tenement has been granted, and the clearing is for a purpose consistent with the tenement type, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There is an Aboriginal site of significance (ID 19180) approximately 8.7km east of the area under application. 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.

The proponent has a current EP Licence (4570/9) valid until 6 October 2007 and no amendment to this licence has been submitted. The proponent also holds an inforce water licence; GWL62505(3) which expires on 1 April 2010.

Clearing Permit 747/1 for the purpose of mineral production was originally granted on 27 October 2005. The original permit was due to expire on 28 February 2007. The Cave Rocks Project underwent an unexpected change from an Underground Mining Proposal to an Open Pit/ Underground Mining Proposal, hence delaying approval times. Consequently the proponent applied to extend the duration of the permit. The permit has now been amended (CPS 797/2) to extend the duration of the permit until 31 August 2007.

Methodology

DoE (2005).  
GIS Databases:  
- Aboriginal Sites of Significance - DIA 04/07/02.  
- Native Title Claims - DLI 19/12/04.

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mineral Production	Mechanical Removal	17	Grant	The amended proposal has been assessed against the Clearing Principles. The amendment extends the duration of the permit by 6 months, which does not significantly alter the environmental impacts of the proposal. The assessing officer therefore recommends that the amended permit be granted.

**5. References**

- CALM (2005) Land clearing proposal advice. Advice to Program Manager, Native Vegetation Assessment Branch, Department of Industry and Resources (DoIR) - Department of Conservation and Land Management, Western Australia.
- CALM (2005a) Land clearing proposal advice. Advice to Program Manager, Native Vegetation Assessment Branch, Department of Industry and Resources (DoIR) - Department of Conservation and Land Management, Western Australia.
- DAWA (2005) Land degradation assessment report - Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia.
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment,

Victoria.

- DoE (2005) Licence check and water allocation advice - Department of Environment, Western Australia.
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.
- Gold Fields Australia Pty Ltd (2004) Declared rare flora monitoring 2004.
- Halpern Glick Maunsell (1998) Lake Lefroy environmental assessment (prepared for WMC Resources Ltd); Report - ES4490C, March 1998
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of Australia, Canberra.
- Jims Seeds, Weeds & Trees (2005) Flora survey of the proposed clearing area within the Cave Rocks mining lease (M15/300).
- Jims Seeds, Weeds & Trees (2005a) Review of flora and fauna for the St. Ives Gold Mine tenements.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske Consulting (2001) Potential species for rehabilitation of Cave Rocks waste rock dump in Kambalda Nature Reserve. Prepared for WMC Resources Ltd.
- Ninox Wildlife Consulting (1993). The vertebrate fauna of Kambalda Timber Reserve. Unpublished report to Western Mining Corporation Ltd.
- Payne, A.L., Mitchell, A.A. and Hennig, P. (1998) Land systems of the Kambalda area and surrounds. Natural Resource Management Services. Agriculture Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- WMC Resources Ltd (1992) Summary of flora collected and observed on Kambalda Nature Reserve: Licence NE 654. Technical note EVN 134.

## 6. Glossary

### Acronyms:

BoM	Bureau of Meteorology, Australian Government.
CALM	Department of Conservation and Land Management, Western Australia.
DAFWA	Department of Agriculture and Food, Western Australia.
DA	Department of Agriculture, Western Australia.
DEC	Department of Environment and Conservation
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DoE), Western Australia.
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia.
DoE	Department of Environment, Western Australia.
DoIR	Department of Industry and Resources, Western Australia.
DOLA	Department of Land Administration, Western Australia.
DoW	Department of Water
EP Act	Environment Protection Act 1986, Western Australia.
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System.
IBRA	Interim Biogeographic Regionalisation for Australia.
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI	Rights in Water and Irrigation Act 1914, Western Australia.
s.17	Section 17 of the Environment Protection Act 1986, Western Australia.
TECs	Threatened Ecological Communities.

### Definitions:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P2** **Priority Two - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa

are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

- P3 **Priority Three - Poorly Known taxa:** taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4 **Priority Four – Rare taxa:** taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R **Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable):** taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X **Declared Rare Flora - Presumed Extinct taxa:** taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1 **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2 **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3 **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4 **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1 **Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2 **Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3 **Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4 **Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- P5 **Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

**Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999*)**

- EX **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W) **Extinct in the wild:** A native species which:  
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or  
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN **Endangered:** A native species which:  
(a) is not critically endangered; and  
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU **Vulnerable:** A native species which:

- (a) is not critically endangered or endangered; and
- (b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

**CD**

**Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.