

## **Clearing Permit Decision Report**

## 1. Application details

### Permit application details

Permit application No.: 3467/1

Permit type: Purpose Permit

**Proponent details** 

Proponent's name: **Prumm Corporation Pty Ltd** 

**Property details** 

Property:

Mining Lease 77/637 **Local Government Area:** Shire of Westonia Colloquial name: Pertha M Gold Project

Application

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

#### Site Information

## **Existing environment and information**

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

## **Vegetation Description**

Vegetation within the application area has been mapped at a 1:250,000 scale as the following Beard Vegetation Association (GIS Database, Shepherd, 2007):

536: Medium woodland; morel & rough fruited mallee (Eucalyptus corrugata).

A flora and vegetation survey of the application area was undertaken by Mattiske Consulting Pty Ltd on 10 and 11 December 2009. On vegetation type has been described for the application area:

1) Open Woodland of Eucalyptus salmonophloia – Eucalyptus salubris over Acacia hemiteles and Acacia aestivalis over Atriplex vesicaria. Olearia muelleri and a variety of other herbs and grasses.

## **Clearing Description**

Prumm Corporation Pty Ltd has applied to clear up to 2 hectares of native vegetation for the purpose of mineral production. Vegetation will be cleared for an open pit, establishment of a bund and access track upgrades. Clearing will be undertaken by mechanical means, and all cleared topsoil and vegetation will be stockpiled for use in rehabilitation.

#### **Vegetation Condition**

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

#### Comment

Photographs submitted with the clearing permit application demonstrate that the vegetation within the application area has been adversely impacted by historic mining related disturbance.

Mattiske Consulting Pty Ltd (2010) state that "the survey area abuts already cleared and modified environments". Vegetation condition has been provided by Mattiske Consulting Pty Ltd (2010).

## Assessment of application against clearing principles

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

#### Comments Proposal may be at variance to this Principle

The application area occurs within the Ancient Drainage subregion of the Avon Wheatbelt Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). At a broad scale vegetation can be described as proteaceous scrub-heaths, rich in endemics on residual lateritic uplands and derived sandplains; mixed eucalypt, Allocasuarina huegeliana and Jam-York Gum woodlands on quaternary alluvials and eluvials (CALM, 2002).

A flora and vegetation survey of the proposed clearing areas was undertaken by Mattiske Consulting Pty Ltd on 10 and 11 December 2009. A total of 57 flora taxa, from 44 genera and 20 families were recorded during the survey (Mattiske Consulting Pty Ltd, 2010). No Declared Rare Flora or Priority Flora was recorded within the application area (Mattiske Consulting Pty Ltd, 2010). Mattiske Consulting Pty Ltd (2010) commented that the area abuts already cleared and modified environments (historic), and photographs of the application area demonstrate that the vegetation has been adversely impacted by historic mining related disturbances.

The application area is located within the Westonia Town Common (Crown Reserve 14983) which is a remnant

of vegetation covering approximately 4,000 hectares, and is surrounded by cleared agricultural land (McLellan, 2008). During the 'Westonia BioBlitz' biological survey on 15 to 16 September 2007 of the Westonia Town Common a total of 222 flora taxa, as well as 9 species of mammal, 5 species of reptile and amphibian, 51 species of bird and 44 species of invertebrates were recorded within the reserve (McLellan, 2008). This remnant of native vegetation is certainly considered to comprise of a high level of biodiversity due to vast areas of native vegetation that has been cleared for agricultural purposes throughout the local area and bioregion, and is extremely important for the on-going maintenance and conservation of flora and fauna.

The proposed clearing of up to 2 hectares represents approximately 0.05% of the total size of the Westonia Town Common. Whilst the application area is certainly more diverse than nearby neighbouring agricultural land, it is situated adjacent to disturbed areas and has been adversely impacted by historic mining disturbances. As a result, it is not likely to comprise higher biodiversity than other less disturbed areas of vegetation throughout the Crown Reserve.

Five weed species were recorded within the application area and these were *Avena barbata*, *Pentaschistis airoides*, *Mesembryantheumum nodiflorum*, *Brassica tournefortii* and *Centaurea melitensis* (Mattiske Consulting Pty Ltd, 2010). Should a permit be granted, it is recommended that a condition be imposed on the permit for the purpose of weed management.

Based on the above, the proposed clearing may be at variance to this Principle.

#### Methodology CAI

CALM (2002)

Mattiske Consulting Pty Ltd (2010)

McLellan (2008) GIS Datanase:

- Interim Biogeographic Regionalisation of Australia

# (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 Proposal may be at variance to this Principle

The application area is located within the Westonia Town Common (Crown Reserve 14983) which is remnant area of eucalypt woodland (principally gimlet, red morel and salmon gum) which covers approximately 4,000 hectares (McLellan, 2008). Aerial imagery demonstrates that the area surrounding the Westonia Town Common has been extensively cleared for agriculture, with only small, isolated and fragmented patches of remnant vegetation remaining (McLellan, 2008). The eucalypt woodlands which characterise much of the reserve are in relatively good condition and are protected from livestock grazing by perimeter fencing and fire through local fire control (McLellan, 2008). Given the extent of land clearing that has occurred in the local area and bioregion, as well as the quality of the vegetation, the Westonia Town Common is considered extremely significant habitat for fauna species in the local area.

A search of the Department of Environment and Conservation's (DEC's) Nature Map database was undertaken by the assessing officer using the coordinates 31°16′30′S and 118°39′06′E, thereby representing a 40 kilometre radius from the application area. This search identified 6 Amphibian, 19 Avian, 19 Mammalian, 48 Reptilian and 198 invertebrate species that may occur within the application area (Department of Environment and Conservation, 2007). These results indicate that the application area may provide suitable habitat for a moderate to high diversity of reptile species, and a high diversity of invertebrate species.

On 15 to 16 September 2007 the Westonia Town Common was subject to a 24 hour biological survey as part of the 'Westonia BioBlitz' (McLellan, 2008). A total of 9 species of mammal, 5 species of reptile and amphibian, 51 species of bird and 44 species of invertebrates were recorded within the Westonia Town Common (McLellan, 2008). The results indicate that the biological survey recorded a particularly high number of avian species given that only 19 avian species were identified as potentially occurring within a much larger search area.

Prumm Corporation Pty Ltd has applied to clear up to 2 hectares of native vegetation within the Westonia Town Common which covers a total area of approximately 4,000 hectares (approximately 0.05% of the vegetation remaining within the Westonia Town Common) (McLellan, 2008). Aerial imagery and photographs submitted with the clearing application demonstrates that the application area has been subject to some historic mining disturbances, and that large areas of higher quality vegetation remain adjacent and throughout the Westonia Town Common. Whilst disturbances have impacted on the quality of the vegetation within the application area, the vegetation under application is still considered to comprise of some valuable habitat value for fauna given the extent of land clearing that has occurred within the local area.

Based on the above, the proposed clearing may be at variance to this Principle. However, the proposed clearing is located in the central portion of the Westonia Town Common and is not likely to significantly impact the ecological functions of the reserve, cause significant fragmentation to the reserve, or impact on an important ecological linkage to other areas of remnant native vegetation nearby.

#### Methodology

Department of Environment and Conservation (2007 - 2009) McLellan (2008)

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

## Comments Proposal is not likely to be at variance to this Principle

According to available databases, there are no records of Declared Rare Flora (DRF) within the application area. Three DRF species, *Eremophila resinosa*, *Eucalyptus crucis* subsp. *crucis* and *Boronia adamsiana*, have been recorded within a 15 kilometre radius of the application area (GIS Database). Only *Eremophila resinosa* and *Boronia adamsiana* are known to occur within Westonia Town Common (Crown Reserve 14983) within which the application area is located (GIS Database).

Mattike Consulting Pty Ltd carried out a flora and vegetation survey of the application area on 10 and 11 December 2009 to review and assess the flora values, including a search for DRF and Priority Flora species (Mattiske Consulting Pty Ltd, 2010). No DRF or Priority Flora taxa were recorded within the application area (Mattiske Consulting Pty Ltd, 2010).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

#### Methodology N

Mattiske Consulting Pty Ltd (2010)

GIS Database:

- Declared Rare and Priority Flora List

## (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 Proposal is not likely to be at variance to this Principle

According to available databases, there are no Threatened Ecological Communities (TEC's) within the application area (GIS Database). The nearest TEC has been recorded approximately 60 kilometres north-east of the application area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

#### Methodology

GIS Database:

- Threatened Ecological Sites 1
- Threatened Ecological Boundaries

# (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

## Proposal may be at variance to this Principle

The application area falls within the Avon Wheatbelt Biogeographic Regionalisation of Australia (IBRA) bioregion in which approximately 15.2% of the Pre-European vegetation remains (see table) (GIS Database; Shepherd, 2007).

The vegetation of the application area has been mapped as Beard Vegetation Association 536: Medium woodland; morel and rough fruited mallee (*Eucalyptus corrugata*) (Shepherd, 2007). According to Shepherd (2007) approximately 43.4% of this Beard Vegetation Association remains at a state level and 35.3% remains at the bioregional level (see table).

The "threshold level" below which species loss appears to accelerate exponentially at an ecosystem level is regarded as being at a level of 30% of the pre-clearing extent of the vegetation type (Environmental Protection Authority, 2000). A significant consideration towards the clearing of native vegetation under this proposal is to ensure that the clearing does not impact on remnant vegetation communities with less than 30% remaining, or reduce the extent of pre-European vegetation communities below the "threshold level". Beard Vegetation Association 536 is above the "threshold level" at both the state and bioregional level.

The application area lies within the Shire of Westonia which has approximately 35.2% of Pre-European vegetation remaining (Shepherd, 2007). Whilst the Shire of Westonia remains above the 30% threshold the Avon Wheatbelt Bioregion and Ancient Drainage IBRA subregion are both below 20% and have been extensively cleared. Aerial imagery indicates that the application area is within a remnant of vegetation in an area that has been extensively cleared (GIS Database). Crown Reserve 14983, within which the application area is located, has been identified as being regionally significant due to the amount of native vegetation which has been cleared for agricultural purposes (McLellan, 2008).

	Pre- European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	% of Pre- European area in IUCN Class I- IV Reserves (and current %)
IBRA Bioregion  – Avon Wheatbelt	9,517,109	1,443,690	~15.2	Vulnerable	1.75 (7.76)

IBRA Subregion – Ancient Drainage	6,524,190	1,168,614	~17.91	Vulnerable	1.82 (6.93)
Local Government – Westonia	331,941	116,841	~35.2	Depleted	8.1 (22.37)
Beard veg assoc.  – State					
536	13,178	5,714	~43.4	Depleted	9.82 (22.6)
Beard veg assoc.  – Bioregion					
536	11,171	3,946	~35.3	Depleted	11.6 (32.7)
Beard veg assoc.  – Subregion					
536	11,170	3,946	~35.3	Depleted	11.6 (32.7)

<sup>\*</sup> Shepherd (2007)

Based on the above, the proposed clearing may be at variance to this Principle. However, the application area is adjacent to disturbed areas and has been impacted on by historic mining related disturbances itself. As a result, it is not likely to be as significant as other areas of higher quality vegetation within the remnant. The proposed clearing is also relatively small (2 hectares) compared to the remaining remnant (approximately 4,000 hectares) and remaining extent of Beard Vegetation Association 536 within the subregion (3,946 hectares). It is considered unlikely that the proposed clearing of 2 hectares of native vegetation would further disturb or cause a significant reduction to abovementioned vegetation representations.

#### Methodology

Department of Natural Resources and Environment (2002)

Environmental Protection Authority (2000)

McLellan (2008) Shepherd (2007) GIS Database

- Interim Biogeographic Regionalisation of Australia
- Westonia 50cm Orthomosaic
- Pre-European Vegetation

# (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

## Proposal is not likely to be at variance to this Principle

There are no watercourses or wetlands within the application area (GIS Database). A minor, non-perennial drainage line is located approximately 550 metres north of the application area (GIS Database). The vegetation within the application area is not considered to be growing in association with any watercourse or wetland.

Based on the above, the proposed clearing is not likely to be at variance with this Principle.

#### Methodology

GIS Database:

- Hydrography, linear 1

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

#### Comments

## Proposal is not likely to be at variance to this Principle

According to available databases, the soil type within the application area is described as undulating plains with some low Gilgai's: chief soils seem to be hard alkaline red soils in intimate and complex associations with calcareous earths (GIS Database; CSIRO, 2009). The vegetation under application forms part of the Westonia Town Common which is the patch of remnant vegetation which surrounds the application area. The Westonia Town Common was surveyed as part of the 'Westonia BioBlitz' and this survey report confirms that the soils of the area are predominately heavy red soils - clay, loams, loamy duplexes and loamy earths (McLennan, 2008). These soil types are said to be slow to moderately permeable and have low wind erodability (Schoknecht, 2002). The likelihood of water erosion during normal rainfall events is low. Schoknecht (2002) reports that sub-surface acidification for these soils is low.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

#### Methodology

CSIRO (2009) McLennan (2008) Schoknecht (2002)

<sup>\*\*</sup> Department of Natural Resources and Environment (2002)

GIS Database:

- Soils. Statewide

## (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 Proposal is not likely to be at variance to this Principle

The application area is not located within a conservation area or Department of Environment and Conservation managed land (GIS Database). The nearest known conservation areas are Sandford Rocks Nature Reserve, Carrabin Nature Reserve and three other un-named nature reserves which are all located with 10 kilometres of the application area.

Aerial imagery demonstrates that the vegetation under application lies within the centre of a remnant area of native vegetation (GIS Database). This remnant is linked to these nature reserves, primarily by road side vegetation. The proposed clearing will not impact on any linkages to these conservation areas.

Base on the above, the proposed clearing is not likely to be at variance to this Principle.

#### Methodology

GIS Database:

- DEC Tenure
- Westonia 50cm Orthomosaic

## (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 Proposal is not likely to be at variance to this Principle

According to available databases, the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database).

Rainfall in the area is largely during the winter months with the majority of rain falling between May and October (McLellan, 2008). Some rainfall comes from occasional summer thunderstorms brought about by decaying tropical cyclones from the north of the state (McLellan, 2008). There are no watercourses or wetlands within the application area (GIS Database). During normal rainfall events, the proposed clearing would not likely lead to an increase in sedimentation of watercourses proximate to the application area.

The groundwater salinity within the application area has been measured between 14,000 to 35,000 milligrams per litre of Total Dissolved Solids (TDS), and this is considered to be saline (GIS Database). The relatively small scale of the clearing is not likely to cause the groundwater quality to deteriorate any further.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

#### Methodology

McLellan (2008)

**GIS Database** 

- Groundwater Salinity, Statewide
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSA?s)

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

#### Comments

## Proposal is not likely to be at variance to this Principle

The application area experiences a mediterranean type climate, however, due to its location immediately adjacent to the western border of the interzone it also displays some semi-arid climate characteristics (McLellan, 2008). The application area experiences average annual rainfall of 325 millimetres, of which approximately 65% falls between May and October. With the application area being located within the centre of a remnant portion of native vegetation that covers a total area of approximately 4,000 hectares (McLellan, 2008), the proposed clearing of up to 2 hectares is not likely to form a catchment area that may promote flooding, or alter the drainage characteristics of the local area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology McLellan (2008)

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

### Comments

The clearing permit application was advertised by the Department of Mines and Petroleum on 14 December 2009, inviting submissions from the public. One submission was received. This submission objected to the clearing due to the amount of native vegetation that has been cleared in the local area and Avon Wheatbelt IBRA bioregion, and requested photographs of the area applied to be cleared.

There is one native title claim over the area under application; WC99/029 (GIS Database). This claim has been

registered with the Native Title Tribunal on behalf of the claimant group. However, the mining tenement 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 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 throughout the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment and Conservation 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 GIS Database

- Aboriginal Sites of Significance
- Native Title Claims

#### 4. Assessor's comments

#### Comment

The proposal has been assessed against the Clearing Principles and the proposed clearing may be at variance to the Principles (a), (b) and (e), and is not likely to be at variance to Principles (c), (d), (f), (g), (h), (i) and (j).

It is recommended that should a permit be granted, conditions be imposed on the permit for the purpose of weed management, record keeping and permit reporting.

#### 5. References

Commonwealth Scientific and Industrial Research Organisation (2009). Australian Soil Resource Information System. <a href="http://www.asris.csiro.au/index\_ie.html">http://www.asris.csiro.au/index\_ie.html</a>. Accessed on 23 December 2009.

Department of Conservation and Land Management (2002). A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions.

Department of Environment and Conservation (2007 - 2009). NatureMap: Mapping Western Australia's Biodiversity.

Department of Environment and Conservation. Viewed 5 January 2010. <a href="http://naturemap.dec.wa.gov.au/">http://naturemap.dec.wa.gov.au/</a>>.

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.

Environmental Protection Authority (2000). Environmental Protection of Native Vegetation in Western Australia, Clearing of Native Vegetation, With Particular Reference to the Agricultural Area, Position Statement No. 2, Prepared by the Environmental Protection Authority, December 2000.

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 Pty Ltd (2010). Flora and Vegetation Survey of Westonia Survey Area. Prepared for Pertha M. Goldmine by Mattiske Consulting Pty Ltd, January 2010, prepared for Pertha M Goldmine, Prepared by Mattiske Consulting Pty Ltd on behalf of Rally Environmental, January 2010.

McLellan, R. (2008). Westonia BioBlitz Report 2007. WWF-Australia, Sydney.

Schoknecht, N. (2002). Soil Groups of Western Australia. A simple guide to the main soils of Western Australia. Resource Management Technical Report 246. Edition 3.

Shepherd, D.P. (2007). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

#### 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.

**DMP** Department of Mines and Petroleum, Western Australia.

**DoE** Department of Environment, Western Australia.

**DOLA**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:**

**P**3

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

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 — 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 — 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 — 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 — 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.

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.

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.

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.
- **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.