



1. Application details

1.1. Permit application details

Permit application No.: 330/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Yilgarn Mining Limited

1.3. Property details

Property: M24/450
M24/449
M24/451
Local Government Area: City Of Kalgoorlie/Boulder
Colloquial name: Rose Dam Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
100		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 468; Medium woodland; Salmon Gum and Goldfields Blackbutt;	The proposal is for the clearing of up to 100 hectares of native vegetation within a project area of 2,233 hectares for future exploration, mining activity and related infrastructure ie. roads, pipelines, offices (Paterson, 2005).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The area under application has been subjected to pastoral activities for nearly 100 years, and more recently mineral exploration (Minesite Rehabilitation Services, 2003). Consequently, understorey cover has been substantially reduced as a result of overgrazing and mining activities.
Beard vegetation association 2901; Mosaic: Medium woodland; <i>Allocasuarina cristata</i> and Goldfields Blackbutt/Shrublands; <i>Acacia quadrimarginea</i> thicket;	The vegetation across M24/451 was surveyed in September 2003 by Minesite Rehabilitation Services and is representative of that found across most of the project area, including that of the Paddington mining area located immediately east of the area under the application. It can be broadly described as Open Eucalyptus woodland within which there are three distinctive vegetation units (Minesite Rehabilitation Services, 2003): a. Open woodland supporting <i>Eucalyptus</i> species and <i>Casuarina cristata</i> and <i>Casuarina pauper</i> ; b. Open woodland with less saline drainage foci dominated by <i>Atriplex nummularia</i> ; and c. Open woodland with highly saline drainage foci supporting <i>Halosarcia</i> spp and <i>Frankenia</i> spp.		Despite a long history of mining and pastoral activities across the area, photographs supplied with the 'Flora and Fauna Survey of M24/451' (Minesite Rehabilitation Services, 2003), indicate that the vegetation is in 'very good' condition. The health of vegetation has been noticeably affected around watering points where grazing pressure is particularly evident.
Beard vegetation association 2903; Medium woodland; Salmon Gum, Goldfields Blackbutt, Gimlet and <i>Allocasuarina cristata</i> (Hopkins et al. 2001; Shepherd et al. 2001).	Of the three vegetation units described across mining lease M24/451, the Open woodland unit is the most dominant occupying greater than 80% of the total lease area (Minesite Rehabilitation Services, 2003).		

Colin Paterson, Executive Director, Yilgarn Mining Ltd. (pers comm. 14/10/2005).

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 area under the application has been subjected to pastoral activities for nearly 100 years, and more recently mineral exploration (Minesite Rehabilitation Services, 2003). Consequently, understorey cover has been substantially reduced as a result of overgrazing and mining activities. The health of vegetation has been noticeably affected around watering points where grazing pressure is particularly evident.

No known Declared Rare Flora or Priority species are located within the area under application, and the vegetation associations that exist within the project area are well represented both locally and regionally. It is unlikely that the biodiversity at the site of this proposal would be considered outstanding, or of a higher diversity than in the Coolgardie or Murchison bioregion, the City of Kalgoorlie/Boulder or the local area.

Methodology

Minesite Rehabilitation Services (2003).

GIS Databases:

- Declared Rare and Priority Flora List - CALM 01/07/05.

- Pre-European Vegetation - DA 01/01.

(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 is not likely to be at variance to this Principle

An opportunistic fauna survey of the mining lease M24/451 was conducted by Minesite Rehabilitation Services on behalf of Yilgarn Mining Ltd in September 2003. This survey incorporated a desktop study detailing known populations of threatened fauna. No rare or priority species were located in the search area during the desktop study, or observed during the opportunistic survey. The fauna which were observed are characteristic of most of the Goldfields area. Although the project area may represent habitat for the Malleefowl (*Leipoa ocellata*, Schedule 1), no active nests were observed at the time of the survey (Minesite Rehabilitation Services, 2003).

A desktop fauna habitat assessment of the Paddington mining area was conducted by MBS Environmental in November 2005, based on the suitability of the habitat identified through vegetation mapping previously carried out for that project area (van Etten, 2005). The Rose Dam project area currently under the application is west of, and directly adjacent to the Paddington mining area. Given the close proximity of this application to the Paddington area and the fact that the majority of the vegetation communities identified by van Etten similarly exist within the project area under application, the findings from the MBS desktop fauna habitat assessment are also applicable to the Rose Dam project area.

MBS Environmental (2005) advised that the Shy Heathwren (*Hylacola cauta whitlocki*, Priority 4), Rainbow Bee-eater (*Merops ornatus*, Migratory), Crested Bellbird (*Oreoica gutturalis gutturalis*, Priority 4) and the White-browed Babbler (*Pomatostomus superciliosus ashbyi*, Priority 4) may all inhabit the Paddington mining area. However, due to the widespread nature of the habitats across the Paddington area, it is considered unlikely that these would represent significant habitat for those species (MBS Environmental, 2005). Similarly, potential habitat for these species is also well represented across the current area under application. The Shy Heathwren, Crested Bellbird and White-browed Babbler have all been recorded from the nearby Karrawang Nature Reserve, indicating that part of the habitat of these species in the Goldfields region has already been reserved (MBS Environmental, 2005).

In consideration of the above factors and CALM's concurrence with the above fauna assessment (CALM, 2005), it is unlikely that the proposed clearing is at variance to this principle.

Methodology

CALM, Environmental Management Branch (pers comm. 07/12/2005).

van Etten (2005).

Minesite Rehabilitation Services (2003).

MBS Environmental (2005).

GIS Databases:

- Pre-European Vegetation - DA 01/01.

- Threatened Fauna - CALM 30/9/05.

(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

The nearest known Priority species to the Yilgarn Mining lease area is *Eremophila praecox* (P1) which has been recorded approximately 9km south of the proposal (GIS Database), however, no Priority species were found during the flora survey across tenement M24/451 (Minesite Rehabilitation Services, 2003).

Vegetation mapping and a flora survey was conducted by van Etten for the Paddington mining area in January 2005 (van Etten, 2005). The Paddington area is located directly adjacent to the current application area and as such the vegetation communities associated with the two are very similar, with the exception of the salt lake

fringing communities identified within the southern extent of the Paddington lease area. Based on this, the likely risk of any flora of conservation significance being found across the current application area can be reasonably determined using the previous survey and vegetation mapping for the Paddington area (van Etten, 2005).

A total of 82 taxa were collected from 19 survey sites across the Paddington lease area, however, none were found to be classified as Declared Rare Flora or Priority Flora by CALM. *Eremophila pustulata* (previously a Priority 3 species) was observed during the survey, however, this has been re-classified by CALM as 'not threatened' (van Etten, 2005).

A search of CALM's Threatened (Declared Rare) Flora database was also conducted for the Paddington area which indicated that three Priority 1 species (*Acacia apedunculata*, *Eremophila praecox* and *Lepidium fasciculatum*), two Priority 2 species (*Eucalyptus jutsonii* and *Elachanthus pusillus*), two Priority 3 species (*Gompholobium asperulum* and *Xanthoparmelia dayiana*) and one Priority 4 species (*Eucalyptus x brachyphylla*) could occur within the Paddington area, however, no known populations or individual specimens of these species have been located within the Paddington area (MBS Environmental, 2005a). Given the close proximity of the Paddington area to the current application area, it is unlikely that any of the above Priority species would be found within the Yilgam Mining lease area.

CALM (2005) agree that based on previous survey work and vegetation mapping of the area adjacent to this proposal, it is unlikely that the proposed clearing will impact on significant flora. Therefore, the proposal is not likely to be at variance to this principle.

Methodology CALM, Environmental Management Branch (pers comm. 07/12/2005).
Minesite Rehabilitation Services (2003).
MBS Environmental (2005a).
van Etten (2005).
GIS databases:
- Declared Rare and Priority Flora List - CALM 01/07/05.
- Pre-European Vegetation - DA 01/01.

(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**
There have been no known Threatened Ecological Communities (TECs) identified within the area subject to be cleared (GIS Database). The nearest known TEC is approximately 171 km south-east 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 **Proposal is not at variance to this Principle**
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).

While the benchmark of 15% representation in conservation reserves (JANIS Forests Criteria, 1997) has not been met for Beard vegetation associations 468, 2901 and 2903, approximately 100% of the pre-European extent remains for each of these associations and they are 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	12,917,718	12,719,084	~98.5%	Least concern	
IBRA Bioregion - Murchison	28,206,195	28,206,195	~100%	Least concern	
City of Kalgoorlie/Boulder	No information available				
Beard vegetation associations					
- 468	476,124	476,120	~100%	Least concern	0.2%
- 2901	36,103	36,103	~100%	Least concern	0.0%
- 2903	32,933	32,933	~100%	Least concern	0.0%

* Shepherd et al. (2001)

** Department of Natural Resources and Environment (2002)

Methodology Shepherd et al. (2001).

EPA (2000).
JANIS Forests Criteria (1997).
Department of Natural Resources and Environment (2002).
GIS Databases:
- Pro-European Vegetation - DA 01/01.
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00.
- Local Government Authorities - DLI 8/07/04.

(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 several minor, non-perennial watercourses situated within the area under application. All of these ephemeral watercourses drain into either Rose Dam, Blag Flag Lake or various other salt lakes that are located approximately 2.2km south of the project area.

The fringing vegetation along these non-perennial watercourses is dominated by halophytes such as *Halosarcia*, *Frankonia* and *Atriplex* species (Minesite Rehabilitation Services, 2003). The clearing of these species for exploration purposes is not likely to have a significant impact as they are prolific seeders, and a good stand of seedlings normally regenerates in the season immediately following the removal of a bush (Department of Agriculture, 1988).

The proposal is for the progressive clearing of 100 hectares of native vegetation within a project area of 2233 hectares. This clearing will not significantly alter water tables and impact upon ecological communities that are wetland or groundwater dependent. Consequently, it is not likely that the clearing of vegetation is at variance to this principle.

Methodology Minesite Rehabilitation Services (2003).
Department of Agriculture (1988).
GIS Database:
- Hydrography, linear - DOE 01/02/04.
- Lakes 250K - GA.
- Kalgoorlie 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 Proposal may be at variance to this Principle

The area under the application is relatively flat with relief less than 2 metres across the application area. The soil types across the area vary in depth according to their position in the profile and are generally deep, red sandy clay loams (Minesite Rehabilitation Services, 2003).

Any clearing will not significantly increase on-site salinisation as saline soils are common throughout the area under application, particularly along drainage lines in the southern extent of the project area (Minesite Rehabilitation Services, 2003).

DAWA (2005) advise that the area under application comprises alluvial plains that drain greenstone hills. Soil erosion and water starvation of vegetation can occur where natural drainage is disturbed by mining and related activities. Therefore, the clearing of 100 hectares for the purpose of exploration, drilling, mining and related infrastructure within these leases is likely to be at variance to this principle if clearing disturbs the natural drainage lines that flow through these leases.

Yilgarn Mining have committed to minimising the clearing of vegetation to that absolutely necessary for exploration, mining and related infrastructure. The development of the pit will impact upon existing drainage lines, however, it is proposed to divert this drainage around the western side of the pit before rejoining its original course into Rose Dam (Yilgarn Mining Pty Ltd, 2003).

It is feasible that potential land degradation impacts associated with clearing may be addressed through careful planning and management, however, in consideration of the above factors, the proposal may be at variance with this principle.

Methodology DAWA (2005).
Minesite Rehabilitation Services (2003).
Yilgarn Mining Pty Ltd (2003).
GIS Databases:
- Evaporation Isoleths - BOM 09/98.
- Isohyets - BOM 09/98.
- Topographic Contours, Statewide - DOLA 12/09/02.

- (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 Kalgoorlie Arboretum and Kurrawang Conservation Reserve are the nearest CALM managed conservation areas to the proposal (GIS Database). Located 28km and 33km respectively south of the area subject to be cleared, it is unlikely that the vegetation within the proposal would be significant in providing an ecological linkage with these regional conservation areas.

The clearing associated with this project is unlikely to impact on the environmental and conservation values of the listed CALM managed areas based on the separating distance between the project and the reserves. Consequently, the proposed clearing is not at variance to this principle.

Methodology

GIS Databases:
- CALM Managed Lands and Water - CALM 1/07/05.

- (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

The area to be cleared does not fall within a Public Drinking Water Source Area (PDWSA) or PDWSA Protection Zone. The Broad Arrow Dam Catchment is situated approximately 1km north of the area to be cleared, however, this will not be impacted upon as it is upslope of the area under application.

There are no permanent or semi-permanent surface waterbodies or major creekbeds within the project area (Yilgarn Mining Pty Ltd, 2003), and subsequently the potential impacts on surface water quality are minimal.

The groundwater within the area under application is considered to be saline at between 14,000-35,000 milligrams per litre of Total Dissolved Solids (TDS)(GIS Database). Consequently, the clearing as proposed is unlikely to have a significant impact on groundwater quality.

The area of native vegetation to be cleared is 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 and Murchison Bioregions {approximately 98% and 100% respectively} (Shepherd et al, 2001).

Yilgarn Mining has committed to the management of drainage and water quality issues by following procedures outlined in its *'Notice of Intent to commence mining operations on mining lease M24/451'* (Yilgarn Mining Pty Ltd, 2003). The proposal is therefore not likely to be at variance to this principle.

Methodology

Yilgarn Mining Pty Ltd (2003).
GIS Databases:
- Groundwater Salinity, Statewide - 22/02/00.
- 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.
- Topographic Contours, Statewide - DOLA 12/09/02.
- Hydrography, linear - DOE 01/02/04.

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

Comments

Proposal is not likely to be at variance to this Principle

The topography of the area is gently undulating with all drainage flowing into either Rose Dam, Blag Flag Lake or other salt lakes via ephemeral creeks. The broad valleys and salt lake systems of the region distribute and sustain floodwaters.

The area under application receives low mean annual rainfall at around 270mm (Yilgarn Mining Pty Ltd, 2003). Given that up to 100 hectares of vegetation will be progressively cleared over a total lease area of 2,233 hectares, it is unlikely that the clearing will create a catchment area large enough to increase the incidence of flooding. Consequently, it is unlikely that the clearing of vegetation for this proposal is at variance to this principle.

Methodology

Yilgarn Mining Pty Ltd (2003).
GIS Databases:
- Hydrography, linear - DOE 01/02/04.
- NATMAP 250K Series Mapping - GA 08/03.

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 tenements have been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no Aboriginal sites of significance within 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 does not have a current EP Licence or works approval for this project.

The proponent holds an inforce water licence for the project; GWL154561 which expires on 1 January 2006.

Methodology

DoE (2005).

GIS Databases:

- Aboriginal Sites of Significance - DIA 28/02/03.

- Native Title Claims - DLI 7/11/05.

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Mineral Production	Mechanical Removal	100	Grant	<p>An assessment of the application has been completed, and it has been determined that the proposal may be at variance to principle g. However, the applicant has committed to the restriction of vegetation clearing where possible, and the management of surface water so as to minimise the potential for land degradation impacts associated with this proposal.</p> <p>All the other clearing principles have been addressed and the proposed clearing is either not or not likely to be at variance to any of these principles. The assessing officer therefore recommends that the permit be granted subject to the following conditions:</p> <ol style="list-style-type: none">1. For each instance of clearing done under this permit, the Permit Holder must record:<ol style="list-style-type: none">a) the co-ordinates of areas cleared using Geocentric Datum Australia 1994;b) the size of the areas cleared in hectares; andc) the dates on which the area was cleared.2. For each instance of clearing recorded under condition 1, the Permit Holder must, within 6 months of the completion of exploration activities, rehabilitate all cleared areas by re-shaping the surface so that it is consistent with the surrounding 5 metres of uncleared land, and re-spreading the topsoil and vegetative material over each cleared area.3. For each area rehabilitated under condition 2 of this permit, the Permit Holder must record:<ol style="list-style-type: none">a) the co-ordinates of areas rehabilitated using Geocentric Datum Australia 1994;b) the size of the areas rehabilitated in hectares; andc) the dates on which the area was rehabilitated.4. The Permit Holder shall provide a report to the Director, Environment, DoIR by 1 February each year, setting out the records required under conditions 1 and 3 of this permit in relation to clearing carried out between 1 January and 31 December of the previous year.

5. References

- DAWA Land degradation assessment report (2005). Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref IN22180.
- Department of Agriculture (1988). Samphire for waterlogged salt land. Farmnote 56/88. 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.
- 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.
- 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.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- MBS Environmental (2005). Desktop Habitat Assessment Paddington Mining Area - Supporting Document for Purpose Permit Application CPS 376/1. Prepared for Placer Dome, November 2005.
- MBS Environmental (2005a). Purpose Permit Application Assessment of Clearing Principles. Prepared for Placer Dome Paddington Tenements, April 2005.
- Minesite Rehabilitation Services (2003). Flora and Fauna Survey of M24/451. Prepared for Yilgarn Mining Pty Ltd, September 2003.
- 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.
- van Etten (2005). Vegetation and Flora of the Paddington Mining Area - A report prepared for Placer Dome Inc., April 2005. Centre for Ecosystem Management, Edith Cowan University.
- Yilgarn Mining Pty Ltd (2003). Notice of Intent to commence mining operations on mining lease M24/451, Kalgoorlie District, Western Australia (Rose Dam Project), October 2003.

6. Glossary

BoM	Bureau of Meteorology, Australian Government.
CALM	Department of Conservation and Land Management, Western Australia.
DAWA	Department of Agriculture, Western Australia.
DA	Department of Agriculture, Western Australia.
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.
EP Act	Environment Protection Act 1986, Western Australia.
EPBC Act	Environment Protection and Biodiversity 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.