Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5486/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Kimberley Quarry Pty Ltd**

1.3. Property details

Property: Mining Lease 4/75
Local Government Area: Shire of Broome
Colloquial name: Nillibubbica Quarry

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 17 October 2013

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 associations have been mapped for the whole of Western Australia. Two Beard vegetation associations have been mapped within the application area: **750:** Shrublands, pindan; *Acacia tumida* shrubland with grey box and cabbage gum medium woodland over ribbon grass and curly spinifex; and **751:** Shrublands, pindan; *Acacia eriopoda* and *Acacia tumida* shrubland with scattered low *Eucalyptus confertifolia* over curly spinifex (GIS Database). Ecologists from EcOz Environmental Services undertook a flora and vegetation survey over the application area and its surrounds in June 2013. Four vegetation associations were mapped within the application area (EcOz Environmental Services, 2013). **Sandstone Outcrops -** *Corymbia dendromerinx* low woodland over *Terminalia canescens* low open woodland over *Acacia monticola*, *Grevillea refracta* and *Grevillea pyramidalis* subsp. *pyramidalis* tall open shrubland over *Triodia schinzii* open hummock grassland. **Pindan Plain Open -** *Corymbia polycarpa* low woodland over *Acacia tumida* var. *tumida*, *Acacia platycarpa* and *Erythrophleum chlorostachys* low woodland over *Chrysopogon pallidus*, *Eriachne obtusa* and *Sorghum stipoideum* tussock grassland to closed tussock grassland. **Pindan Plain Dense -** *Corymbia dendromerinx*, *Corymbia polycarpa* and *Erythrophleum chlorostachys* low open woodland over *Acacia platycarpa* and *Acacia*	Nillibubbica Quarry project. Kimberley Quarry Pty Ltd proposes to clear up to 45 hectares of native vegetation, within a total boundary of approximately 91 hectares, for the purpose of mineral production. The application area is located approximately 72 kilometres south-west of Derby.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994); To: Excellent: Vegetation structure intact; disturbance affecting individual species, weeks non-aggressive (Keighery, 1994).	The clearing is to expand the Nillibubbica Quarry operations and will include an open pit, topsoil stockpile, waste stockpile and access tracks. Vegetation will be cleared by bulldozers. The vegetation condition was assessed by ecologists from EcOz Environmental Services (2013).

tumida var. *tumida* low woodland over *Eriachne obtusa*, *Aristida holathera* and *Sorghum stipoideum* tussock grassland.

Pindan Drainage Channel - *Melaleuca viridiflora* and *Acacia tumida* var. *tumida* tall open shrubland over *Chrysopogon pallidus*, *Eriachne obtusa* and *Sorghum stipoideum* tussock grassland.

3. Assessment of application against clearing principles

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

Comments

Proposal is not likely to be at variance to this Principle

The application area is within the Pindarland subregion of the Dampierland Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). The Pindarland subregion comprises of sandplains of the Dampier Peninsula and western part of Dampier Land, including the hinterland of the Eighty Mile Beach (CALM, 2002). It is a fine textured sand sheet with subdued dunes and includes the paleodelta of the Fitzroy River (CALM, 2002). The vegetation is described as pindan. This is the coastal, semi-arid, north-western margin of the Canning Basin (CALM, 2002).

A vegetation survey of the application area by EcOz Environmental Services in June 2013 found the application area predominantly comprised pindan woodland, an extensive habitat within the Dampierland bioregion. The flora and fauna species recorded within the application area are consistent with those commonly recorded in pindan country (EcOz Environmental Services, 2013). The sandstone outcrops within the application area are a less common feature scattered throughout the region that could theoretically present refuges for rare flora and fauna. However, no rare flora or fauna have been detected, which is likely due to fact that the small and isolated habitat patches provide little protection from fire or stochastic events (EcOz Environmental Services, 2013).

No Threatened Flora, Priority Flora, Threatened Ecological Communities or Priority Ecological Communities were recorded during the flora survey or have previously been recorded within the application area (EcOz Environmental Services, 2013; GIS Database).

Three introduced flora species were identified during the flora survey. These weed species were Pink Periwinkle (*Catharanthus roseus*), Stinking Passion Flower (*Passiflora foetida*) and Tridax (*Tridax procumbens*) (EcOz Environmental Services, 2013). Care must be taken to ensure that the proposed clearing activities do not introduce weed species to the non-infested areas. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

Two broad fauna habitats were recorded during a field survey of the tenement adjacent to the application area: plains with red-brown loamy sand and sandstone outcrops with shallow grey-brown loam (Astron, 2012). Each of these are common in the bioregion (CALM, 2002; Astron, 2012; GIS Database). Based on orthophotos, it is likely that the same broad fauna habitats occur within the application area (GIS Database).

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

Methodology

Astron (2012)
CALM (2002)
EcOz Environmental Services (2013)
GIS Database:
- Clarkson 80 cm Orthomosaic - Landgate 2007
- IBRA WA (Regions - Sub Regions)
- Threatened and Priority Flora
- Threatened Ecological Sites Buffered

(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

A Level 1 vertebrate fauna assessment based on a data and literature review was undertaken by Ninox (2009) to cover 575 hectares of vegetation within three mining tenements between Broome and Derby, including the application area. This desktop survey was to provide an inventory of vertebrate fauna species that could be present in the area and to assess their conservation status. Following on from this desktop assessment, a targeted fauna survey for Greater Bilbies (*Macrotis lagotis*) was undertaken over the application area and its surrounds in June 2013 by EcOz Environmental Services.

The three mining tenements lie within the Dampier Botanical District of the Kimberley Region which consists of extensive riverine plains with cracking clay soils, sandplains on red earthy sand, low uplands of sandstone, and limestone with shallow stony soils (Ninox, 2009). A Level 1 fauna survey was conducted in the mining

tenement adjacent to the current application area and included broad fauna habitat mapping. Two main fauna habitats were recorded during this adjacent survey:

- Plains with red-brown loamy sand - scattered *Corymbia* trees over *Acacia* woodland over hummock and tussock grassland; and
- Sandstone outcrops with shallow grey-brown - scattered *Corymbia* trees over sparse *Acacia* shrubland over hummock and tussock grasses (Astron, 2012).

Based on orthophotos, it is likely that the same broad fauna habitats occur within the application area (GIS Database).

The rocky outcrops present in the survey area appear to be common in the coastal region of the Dampier Peninsula, but less so inland. Areas of rocky outcrops likely to be similar to those in the survey area can be seen on aerial photography extending for approximately 13 kilometres south-west from the survey area and to the north of Great Northern Highway (Astron, 2012).

The desktop survey of the three mining tenements predicted 140 species of bird, 37 native mammal, 16 frog, 72 reptile and five introduced mammal species may occur in the tenements (Ninox, 2009). Many of these species are seasonal migrants, highly mobile, nomadic and able to move away from disturbance (Ninox, 2009). The frog species, the majority of the small reptiles and a small number of the bird and small mammal species may be resident in the application area and are more susceptible to the proposed disturbance (Ninox, 2009).

Several diggings were observed during the Astron (2012) fauna survey adjacent to the application area. These diggings were observed in the sandy plains portion of the survey area, the characteristics of which are typical of those made by foraging Greater Bilbies, listed as Vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* (Astron, 2012). Foraging areas of Greater Bilbies are characterised by numerous scattered conical-shaped diggings, and are often temporary and dictated by the availability of food (Johnson, 2008 as quoted in Astron, 2012). Targeted searches were conducted in the adjacent survey area for potential burrow entrances but none were observed (Astron, 2012).

A targeted search for the presence of Greater Bilbies in the application area and its surrounds was undertaken by EcOz Environmental Services ecologists. No burrows or presence of Greater Bilbies were observed within the application area (EcOz Environmental Services, 2013). A group of potential Greater Bilby burrows were observed in a neighbouring tenement; however these were approximately 7.5 kilometres south of the application area (EcOz Environmental Services, 2013).

Incidental fauna observations were also recorded during the EcOz Environmental Services field survey. Two Priority Fauna species were recorded adjacent to the application area: Pictorella Mannikins (*Heteromunia pectoralis*) (Priority 4) and Bush Stone-curlew (*Burhinis grallarius*) (Priority 4) (EcOz Environmental Services, 2013). Four Pictorella Minnikins were recorded at an adjacent gravel pit. The observation is at the western extreme of their range but the gravel pit does not represent core habitat for this species (EcOz Environmental Services, 2013). The Bush Stone-curlew is common in pindan country (EcOz Environmental Services, 2013), a highly mobile species and unlikely to be impacted by the proposed clearing.

While the application area may provide potential foraging habitat for the Greater Bilby and suitable habitat for other native fauna species, the fauna habitat types provided by the application area are common in the local area and the bioregion.

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

Methodology
Astron (2012)
EcOz Environmental Services (2013)
Ninox (2009)
GIS Database:
- Clarkson 80 cm Orthomosaic - Landgate 2007

(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

Two Threatened Flora species are known from the Dampierland IBRA region, *Keraudrenia exastia* and *Pandanus spiralis* var. *flammeus* (Astron, 2012). According to available databases there are no known records of Threatened Flora within the application area (GIS Database).

Ecologists from EcOz Environmental Services conducted a flora survey over the application area and adjacent areas in June 2013. No Threatened Flora was recorded during the survey (EcOz Environmental Services, 2013).

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

Methodology
Astron (2012)
EcOz Environmental Services (2013)

GIS Database:
- Threatened and Priority Flora

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments

Proposal is not likely to be at variance to this Principle

A search of available databases revealed there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest recorded TEC is located approximately 70 kilometres west of the application area (GIS Database).

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

Methodology

GIS Database:
- Threatened Ecological Sites Buffered

(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 clearing application area falls within the Dampierland Interim Biogeographic Regionalisation for Australia (IBRA) bioregion in which 99.7% of the pre-European vegetation remains (see table) (Government of Western Australia, 2013; GIS Database). This gives the bioregion a conservation status of 'Least Concern' according to the Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment, 2002).

The vegetation of the clearing application area has been mapped as Beard vegetation associations:

750: Shrublands, pindan; *Acacia tumida* shrubland with grey box and cabbage gum medium woodland over ribbon grass and curly spinifex; and
751: Shrublands, pindan; *Acacia eriopoda* and *Acacia tumida* shrubland with scattered low *Eucalyptus confertifolia* over curly spinifex (GIS Database).

Over 99% of both of these vegetation associations remain at a state level and bioregional level (Government of Western Australia, 2013). These vegetation associations would be given a conservation status of 'Least Concern' at both a state and bioregional level (Department of Natural Resources and Environment, 2002).

The vegetation under application is not a remnant of vegetation in an area that has been extensively cleared.

	Pre-European Area (ha)*	Current Extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion – Dampierland	8,343,939	8,319,872	~99.7	Least Concern	1.0
Beard Veg Assoc. – State					
750	1,231,155	1,225,688	~99.6	Least Concern	2.3
751	16,045	15,995	~99.7	Least Concern	-
Beard Veg Assoc. – Bioregion					
750	1,229,182	1,225,281	~99.7	Least Concern	2.3
751	16,045	15,995	~99.7	Least Concern	-

* Government of Western Australia (2013)
** Department of Natural Resources and Environment (2002)

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

Methodology

Department of Natural Resources and Environment (2002)
Government of Western Australia (2013)
GIS Database:
- IBRA WA (Regions - Subregions)
- 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 at variance to this Principle

According to available databases, there are no permanent watercourses or wetlands within the application area. However, there is a minor non-perennial watercourse that crosses the application area (GIS Database). One vegetation association 'Pindan Drainage Channel' was identified as occurring in the seasonally waterlogged area (EcOz Environmental Services, 2013). This vegetation association was mapped only in a small portion of the application area and only a small amount is expected to be disturbed (EcOz Environmental Services, 2013).

Based on the above, the proposed clearing is at variance to this Principle. However, the proposed clearing associated with watercourses is small and unlikely to have a significant impact on any watercourse or wetland.

Methodology

EcOz Environmental Services (2013)
GIS Database:
- Hydrography, Linear

(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 application area is mapped as the Reeves Land System (GIS Database). The Reeves Land System is characterised by sandplain with scattered hills and minor plateaux, reddish sandy soils and pindan (Payne and Schoknecht, 2011). Pindan vegetation is subject to fairly frequent fires which induce short term changes in botanical composition, density and structure. Sandplains have minor susceptibility to wind erosion immediately after fire but stabilise rapidly after rain (Payne and Schoknecht, 2011).

Soils in an adjacent survey area comprised red-brown loamy sand on plains and shallow grey-brown loam (skeletal soils) on rocky outcrops (Astron, 2012). Astron (2012) stated for an adjacent clearing permit application area (CPS 5411/1) that the removal of vegetation from these soils across the survey area is likely to result in some wind and water erosion, however, the proposed clearing of 10 hectares is unlikely to be significant. Kimberley Quarry Pty Ltd (2013) will be rehabilitating mined out areas, progressively where possible, which reduces the long term impact of land degradation. The current application is for 45 hectares which may pose an erosion risk if large areas are cleared then left exposed for long periods. Potential impacts from land degradation as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

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

Methodology

Astron (2012)
Kimberley Quarry Pty Ltd (2013)
Payne and Schoknecht (2011)
GIS Database:
- Rangeland Land System Mapping

(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 within conservation estate (GIS Database). The closest conservation area is the ex-Roebuck Plains Station, a DEC proposed 2015 pastoral lease exclusion, which is located approximately 70 kilometres south-west of the application area (GIS Database). Given the large distance between these two areas it is unlikely that the environmental values of the proposed conservation estate will be compromised by the proposed clearing.

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

Methodology

GIS Database:
- DEC Proposed 2015 Pastoral Lease Exclusions
- DEC Tenure

(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

There are no permanent watercourses or wetlands within the application area, however, there is a minor non-perennial watercourse that crosses the application area (GIS Database). A small portion of the application area was mapped as occurring in a seasonally waterlogged area (EcOz Environmental Services, 2013). For a nearby proposal for 10 hectares of clearing, Astron (2012) stated while the removal of vegetation may result in some localised deterioration of surface water quality through water erosion, the surrounding vegetation is intact and water is unlikely to be impacted in any nearby watercourses (Astron, 2012). The proposed clearing of 45

hectares may have some impact, compared to 10 hectares, on local surface water if water erosion is not controlled. Potential impacts from water erosion as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

According to available databases, the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). The nearest PDWSA is the Broome Water Reserve which is located approximately 60 kilometres west of the application area (GIS Database). The moderate amount of clearing is unlikely to cause deterioration in groundwater.

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

Methodology Astron (2012)
EcOz Environmental Services (2013)
GIS Database:
- Hydrography, Linear
- Public Drinking Water Source Areas (PDWSAs)

(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 is within the Coastal catchment area of the Fitzroy River basin (GIS Database). Given the size of the area to be cleared (45 hectares) in relation to the size of the catchment areas (344,252 hectares) (GIS Database), the proposed clearing is not likely to increase the potential of flooding on a catchment scale.

The local area alternates between low plains and rocky outcrops and has well-draining, sandy pindan soils present (Astron, 2012). The proposed clearing is unlikely to cause or exacerbate flooding at a local scale.

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

Methodology Astron (2012)
GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There is one Native Title Claim (WC99/25) over the area under application (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation (formerly 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.

The clearing permit application was advertised on 4 March 2013 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received regarding Aboriginal heritage issues, Native Title, environmental concerns, information provided and consultation. A response was sent to the submission party and the environmental concerns are addressed throughout the assessment.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Registered with the NNTT

4. References

Astron (2012) Nillibubbica Quarry - Level 1 Flora and Fauna Survey, July 2012. Report Prepared by Astron Environmental Services, August 2012.

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

EcOz Environmental Services (2013) Kimberley Quarry Extension Ecological Survey Report. Report Prepared by EcOz Environmental Services, July 2013.
Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
Kimberley Quarry Pty Ltd (2013) Clearing (Purpose) Permit Nillibubbacca Rock Quarry Extension M04/21, M04/22, M04/69 and M04/75. Report Prepared March 2013.
Ninox (2009) A Level 1 Vertebrate Fauna Assessment of Tenements M04/17, M04/69, M04/75 Between Derby and Broome, in the Kimberley Region of Western Australia. Report by Ninox Wildlife Consulting for John Consulting Services on behalf of Kimberley Quarries Pty Ltd, March 2009.
Payne, A. and Schoknecht, N. (2011) Technical Bulletin - Land Systems of the Kimberley Region, Western Australia, No. 98. Department of Agriculture and Food, Western Australia.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), 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 (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

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.