



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3129/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Kimberley Diamond Company NL

1.3. Property details

Property: Mining Lease 04/372
Local Government Area: Derby – West Kimberley
Colloquial name: Ellendale 9

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
364		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

The vegetation of the application area is broadly mapped as Beard Vegetation Association 745: shrublands, pindan; acacia shrubland with scattered low trees over spinifex (GIS Database).

Mattiske Consulting (2009) describe the vegetation of the application area as comprising the following vegetation communities:

A) Tall shrubland of *Acacia platycarpa* with emergent *Corymbia opaca*, *Corymbia cadophora* and occasional *Brachychiton diversifolius* subsp. *diversifolius* over *Sorghum stipoideum* and other Poaceae species on deep red sands of extensive flats.

D) Low Open Woodland of *Corymbia opaca*, *Corymbia cadophora*, *Eucalyptus bigalenta* with occasional *Eucalyptus tectifera* over scattered *Melaleuca nervosa*, *Sorghum stipoideum*, *Triodia pungens* and *Cyperus* species on lower lying broad drainage lines on paler red sand with some clays.

F) Low Open Woodland *Lophostemon grandiflorus* subsp. *riparius* and patches of *Melaleuca nervosa* on cracking dark clay loams in small basin areas.

H) Open Grassland *Sorghum stripoideum*, *Triodia pungens* and *Aristida inaequiglumis* with emergent *Corymbia opaca* and very occasional *Grevillea pyramidalis*, *Bauhinia cunninghamii* and *Lophostemon grandiflorus* subsp. *riparius* on hard, pale grey clays.

I) Emergent scattered *Acacia platycarpa* and *Corymbia cadophora* over *Vertilago viminalis* over dense grasses including *Sorghum stipoideum*, *Brachyachne convergens*, *Urchloa pubigera* and *Heteropogon contortus* on rock slopes of sandstone hills.

Clearing Description

Kimberley Diamond Company NL (KDC) have applied to clear up to 364 hectares within a purpose permit boundary totalling approximately 6,346 hectares. The proposed clearing includes 141 hectares for three cells of a tailings storage facility, 105 hectares for a proposed air strip and 57 hectares for a lights stockpile. An additional 60 hectares has been requested for various projects as part of the Ellendale 9 operation: low grade stockpile extension; run of mine pad extension; production and dewatering bore development; drainage works; E12 pipe exploration; E9 north alluvials; and tracks associated with these areas (KDC, 2009).

Vegetation Condition

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

to

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

Comment

The vegetation condition assessment is based on Mattiske Consulting (2009) which described the condition of the vegetation surveyed in the Ellendale area as varying from very degraded to very good. Mattiske Consulting (2009) and Ninox Wildlife Consulting (2003) both noted that the vegetation within the Ellendale lease area had been subjected to extensive grazing activities and frequent fires. Mattiske Consulting (2009) noted that the impacts of the proposed mining operations are relatively minor in a local and regional context. Disturbance from previous mining exploration activity was also noted by Mattiske Consulting (2009) and several tracks run through the purpose permit application area.

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 located within the Fitzroy Trough subregion of the Dampierland Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions identified rainforest patches as locations with high species and ecosystem diversity as well as centres for endemism (CALM, 2002). Mattiske Consulting (2009) state that there are no locations of rainforest within the application area. The Devonian Reef has also been highlighted as a location with heightened biodiversity.

The Devonian Reef is located approximately 6.5 kilometres south of the application area. The northern portion of the Devonian Reef was surveyed as part of the Mattiske Consulting (2009) flora survey which included the application area. In total the flora survey covered some 12,382 hectares, with the application area making up the northern half of this survey (6,346 hectares). A total of 15 distinct vegetation communities comprising of 397 flora taxa from 190 genera and 72 families were recorded during the Mattiske Consulting (2009) flora survey. Only five of the recorded vegetation communities occur within the application area. In contrast, fourteen of the vegetation communities occur in the location where the Devonian Reef starts totalling approximately 2500 hectares (Mattiske Consulting, 2009). It is likely that a large proportion of the 397 flora taxa recorded during the flora survey were recorded in the Devonian Reef area and not within the application area, given the large difference in the number of floristic communities. This would suggest that in terms of floristic diversity the application area is less diverse than the Devonian Reef system and therefore, does not comprise a relatively high level of floristic biodiversity in the local area.

No Declared Rare Flora (DRF) or Threatened Ecological Communities (TEC's) were recorded during floristic survey of the application area (Mattiske Consulting, 2009).

A total of 22 native mammals, 11 frogs, 58 reptiles and 124 birds have been recorded in the various habitats of Mining Lease 04/372 over the course of the last 20 years (Ninox Wildlife Consulting, 2003). As with the flora survey, the fauna survey was conducted in part over the application area and the Devonian Reef system (Ninox Wildlife Consulting, 2003). It is likely that given the numerous fauna habitats the Devonian Reef system would provide, with its high number of floristic communities and limestone cliffs and caves (Ninox Wildlife Consulting, 2003), that this area would represent a higher level of faunal diversity than the application area.

No flora species listed as Declared weeds under the *Agriculture and Related Resources Protection Act 1976* were recorded during the Mattiske Consulting (2009) flora survey, while 13 general environmental weeds were recorded: Kapok bush (*Aerva javanica*), Buffel Grass (*Cenchrus ciliaris*), Birdwood grass (*Cenchrus setiger*), *Bothriochloa pertusa*, Couch (*Cynodon dactylon*), Awnless Barnyard Grass (*Echinochloa colona*), Purslane (*Portulaca oleracea*), Verano Stylo (*Stylosanthes hamata*), Mung Bean (*Vigna radiate*), Asthma Plant (*Euphorbia hirta*), Calotrope (*Calotropis procera*), Vicardo Melon (*Cucumis melo*) and Tridax (*Tridax procumbens*) (Mattiske Consulting, 2009).

The presence of introduced weed species diminishes the biodiversity value of an area (CALM, 1999). Care needs to be taken to ensure that vehicles and machinery brought into the application area do not introduce weeds to non-infested areas. Should a clearing permit be granted, it is recommended that appropriate conditions be imposed to minimise the risk of clearing operations spreading or introducing weeds to non-infested areas.

Other factors which may have an impact on the biodiversity of the application area is:

- the existence of a current mining operations; three other clearing permits have been granted within the same location as the current application (CPS 410/1; CPS 896/1; and 1352/1 (GIS Database)).
- grazing from cattle; and
- the presence of feral cats which were noted in 2002 (Ninox Wildlife Consulting, 2003).

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

Methodology CALM (2002)
CALM (1999)
Mattiske Consulting (2009)
Ninox Wildlife Consulting (2003)
GIS Database:
- Clearing Instruments
- 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 is not likely to be at variance to this Principle

Ninox Wildlife Consulting (2003) conducted vertebrate fauna surveys over the application area in May 2001 and December 2002. Fauna surveys have also been conducted in May 1980 and July 2007 by Ninox Wildlife Consulting (2008) within and around the application area, building up an inventory of fauna information on the Kimberley Diamond Company tenements.

There are numerous fauna habitats located within the application area, however, none of these habitat types were identified as significant or necessary for the continued existence of fauna indigenous to Western Australia (Ninox Wildlife Consulting, 2003).

Two fauna habitats may be important in a local context:

- Acacia shrublands on deep red sand; and
- clay-based soils supporting native grasses (Ninox Wildlife Consulting, 2003).

The Bilby (*Macrotis lagotis*) is listed under both the *Environment Protection Biodiversity Conservation Act 1999* and the *Wildlife Conservation (Specially Protected Fauna) Notice 2008* as Vulnerable (Ninox Wildlife Consulting, 2008). This species occupies mainly central deserts, inland Pilbara, and in the western portion of the Kimberley (Ninox Wildlife Consulting, 2008). It occurs in a variety of habitats throughout its range but requires soils that will support large burrow systems (Ninox Wildlife Consulting, 2008). At Ellendale the Acacia shrubland on deep red sand (Pindan) provides the most likely habitat (Ninox Wildlife Consulting, 2008). The Bilby was not trapped during any surveys although an abandoned burrow system was located in 2002 within the application area (Ninox Wildlife Consulting, 2008). This site has since been excised from the application area therefore, removing potential significant habitat from the proposal. No activity from the Bilby has been noted since the discovery of the burrow system in 2002 (Ninox Wildlife Consulting, 2008).

The Lakeland Downs Mouse (*Leggadina lakedownensis*) is listed as Priority 4 on the Department of Environment and Conservation's Priority Fauna list (Ninox Wildlife Consulting, 2003). This Mouse is found in the Kimberley and Pilbara regions in Western Australia and generally occurs in areas with clay-based soils supporting native grasses (Ninox Wildlife Consulting, 2003). These habitats occur in a number of areas within and around the application area (Ninox Wildlife Consulting, 2003). The abundance of this species is naturally low, however, it is not currently threatened by any identifiable factors (Ninox Wildlife Consulting, 2003).

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

Methodology Ninox Wildlife Consulting (2008)
Ninox Wildlife Consulting (2003)

(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

Mattiske Consulting (2009) conducted flora and vegetation studies of the application area in July 2007 and April 2008. No Declared Rare Flora (DRF) pursuant to the *Wildlife Conservation (Rare Flora) Notice 2008* was identified in the application area. However, three Priority 3 Flora species as listed with the Department of Environment and Conservation (DEC) were recorded in the application area. These species are discussed below.

Aphyllodium glossocarpum, *Phyllanthus aridus* and *Euphorbia stevenii* are all known from numerous confirmed records listed on Florabase (Western Australian Herbarium, 1998-2009). These populations found by Mattiske Consulting (2008) are new listings and therefore, the finding of these populations increases the locations in which these species were known to inhabit. The nature of their listing i.e. these plants are known from several population of which some are not under threat, indicates that it is unlikely the native vegetation proposed to be cleared under this proposal would be necessary for the continued existence of these species.

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

Methodology Mattiske Consulting (2009)
Western Australian Herbarium (1998-2009)

(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 are no known Threatened Ecological Communities (TEC's) within the application area (GIS Database).

The nearest known TEC is located approximately 109 kilometres north-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 Communities

(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 application area is located within the Dampierland bioregion of the Interim Biogeographic Regionalisation of Australia (IBRA) (GIS Database). Shepherd (2007) reports that approximately 99.7% of the pre-European vegetation still exists in the Dampierlands bioregion. The vegetation in the application area is broadly mapped as Beard Vegetation Association Association 745: shrublands, pindan; acacia shrubland with scattered low trees over spinifex (Shared Land Information Platform, 2009). According to Shepherd (2007) there is approximately 100% of this vegetation type remaining.

On a broader scale the Dampierland region has not been extensively cleared. Hence the application area is not considered to represent a significant remnant of native vegetation in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	% of Pre-European area in IUCN Class I-IV Reserves
IBRA bioregion - Dampierland	8,345,181	8,316,459	~99.7	Least Concern	1.03
Beard Vegetation Association - WA					
745	230,258	230,258	~100	Least Concern	0.5
Beard Vegetation Association - Pilbara bioregion					
745	192,624	192,624	~100	Least Concern	0.3

* Shepherd (2007)

** 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)
Shared Land Information Platform (2009)
Shepherd (2007)
GIS Database:
- Interim Biogeographic Regionalisation of Australia
- 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

There are a number of ephemeral drainage lines which occur within the application area (GIS Database).

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

Although there are ephemeral drainage lines in the application area, no vegetation of riparian nature has been identified in the application area. The assemblage of vegetation within ephemeral drainage lines is similar to that of the vegetation in the surrounding areas (Mattiske Consulting, 2009).

Methodology Mattiske Consulting (2009)
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 is not likely to be at variance to this Principle

This clearing permit application overlays the same area as three previous clearing permits (CPS 440/1, 896/1 and 1378/1) (GIS Database). Advice received from the Department of Agriculture and Food Western Australia (DAFWA) (2006) on 30 June 2006 in relation to clearing permit 1378/1 states:

The application area comprises (mainly) of Yeeda and Neilabublica land systems. The Yeeda land system is described as deep red or yellow sand plain supporting pindan vegetation. Low open woodland vegetation is associated with low rises and broad drainage lines. The soil erosion risk on the flat pindan soils is generally low unless surface run off is concentrated. There is some risk if the low rises and broad drainage lines are cleared. The Neilabublica land system soils are dark brown grey loams and clayey calcareous soils that support low open woodland. There is some risk of soil erosion if natural drainage regime is disturbed or slopes are cleared and exposed to high intensity rainfall. A similar land degradation risk is expected if clearing occurs on the lamproite pipes. It is concluded that these soils are not particularly prone to soil erosion and that the vegetation they support is quite resilient in terms of recovery after disturbance. Therefore, it is unlikely that the proposed clearing will be at variance with Principle (g) for soil erosion (DAFWA, 2006).

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

Methodology DAFWA (2006)
GIS Database
- Clearing Instruments

(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

There are no registered conservation areas within the application area (GIS Database). The nearest Department of Environment and Conservation managed land is the 'C' - Class Devonian Reef Conservation Park, approximately 6.5 kilometres south-west of the application area (GIS Database).

The Devonian Reef Conservation Park is vested with the Conservation Commission for the purpose of conservation (GIS Database). The clearing of 364 hectares within an application area of approximately 6,346 hectares may displace some individuals of native fauna, however, this is not anticipated to impact the in situ existence of fauna within the Devonian Reef system. There will still remain very large areas of ecological linkages between the Devonian Reef Conservation Park and the surrounding vegetation.

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

Methodology GIS Database:
- CALM Managed Lands and Waters

(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 application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database).

There are no permanent water bodies or watercourses within, or in proximity to the application area (GIS Database). Therefore, it is unlikely surface water quality would be impacted by this proposal.

In addition, it is unlikely the removal of 364 hectares of native vegetation will result in the deterioration in the quality of groundwater, given the vast size of the Lennard River catchment area (1,437,461 hectares) (GIS Database) and the high percentage (approximately 100%) of existing pre-European vegetation cover remaining in the bioregion (Shepherd, 2007).

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

Methodology Shepherd (2007)
GIS Database:
- Hydrographic Catchments, Catchments
- Hydrography, Linear
- Public Drinking Water Source Areas

(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

Given that approximately 100% of the pre-European vegetation remains in the local area (Shepherd,2007), and the large size of the Lennard River catchment area (1,437,461 hectares) (GIS Database) in comparison to the proposed clearing size, it is unlikely that the proposal would cause or exacerbate the incidence or intensity of flooding in the catchment or local area.

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

Methodology Shepherd (2007)
GIS Database:
- Hydrographic Catchments - Catchments

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

The clearing permit application was advertised on 1 June 2009 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received raising no issues with the application.

There is one native title claim over the application area (GIS Database). This claim (WC99-016) has been registered with the National 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 (ie. 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 known 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 Sites of Aboriginal Significance are damaged through 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 is at variance to Principle (f), is not likely to be at variance to Principles (a), (b), (c), (d), (g), (h), (i) and (j) and is not at variance to Principle (e) .

Should the permit be granted, it is recommended that conditions be imposed on the permit for the purposes of weed management, retention of topsoil and vegetative material, record keeping and permit reporting.

5. References

- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions.
- CALM (1999) Environmental Weed Strategy for Western Australia, Department of Conservation and Land Management, Perth, western Australia.
- DAFWA (2006) Land Clearing Proposal Advice provided by the Office of the Commissioner of Soil and Land Conservation for Clearing Permit proposal CPS 1378/1 on Mining lease M 04/372, advice dated 5 July 2006.
- 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.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- KDC (2009) Supporting documentation for a clearing permit application CPS 3129/1, Broome, Western Australia.
- Mattiske Consulting (2009) 2007 and 2008 Botanical Studies of the Ellendale Minesite, unpublished report prepared for Kimberley Diamond Company, Perth, Western Australia.
- Ninox Wildlife Consulting (2008) A Vertebrate Fauna Survey of the Satellite Orebody Project Area July-August 2007, unpublished report prepared for Kimberley Diamond Company, Perth, Western Australia.
- Ninox Wildlife Consulting (2003) A Seasonal Vertebrate Fauna Survey of the Ellendale Project Area, unpublished report prepared for Kimberley Diamond Company, Perth, Western Australia.

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.

Shared Land Information Platform (2009) Soil-Landscape Degradation Hazards. Available online from: http://spatial.agric.wa.gov.au/slip/products_view.asp. Accessed 25 February 2009.

Western Australian Herbarium (1998-2009) FloraBase – The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/>

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.
DoIR	Department of Industry and Resources, Western Australia.
DOLA	Department of Land Administration, Western Australia.
DoW	Department of Water
EP Act	Environment Protection Act 1986, Western Australia.
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System.
IBRA	Interim Biogeographic Regionalisation for Australia.
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI	Rights in Water and Irrigation Act 1914, Western Australia.
s.17	Section 17 of the Environment Protection Act 1986, Western Australia.
TECs	Threatened Ecological Communities.

Definitions:

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

P1	Priority One - Poorly Known taxa: taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
P2	Priority Two - Poorly Known taxa: taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
P3	Priority Three - Poorly Known taxa: taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
P4	Priority Four – Rare taxa: taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
R	Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable): taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
X	Declared Rare Flora - Presumed Extinct taxa: taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

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

Schedule 1 **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become

extinct, are declared to be fauna that is need of special protection.

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

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

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

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

- EX** **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W)** **Extinct in the wild:** A native species which:
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR** **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN** **Endangered:** A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU** **Vulnerable:** A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD** **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.