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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5461/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Intermin Resources Limited**

1.3. Property details

Property: Mining Lease 26/499
Mining Lease 26/621
Miscellaneous Licence 26/261
Exploration Licence 26/120
Local Government Area: Kalgoorlie-Bolder
Colloquial name: Teal Gold Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 28 March 2013

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description Beard vegetation associations have been mapped for the whole of Western Australia. Three Beard associations are located within the application area (Government of Western Australia, 2011: GIS Database)

125: Bare areas; salt lakes

468: Medium woodland; salmon gum & goldfields blackbutt

540: Succulent steppe with open low woodland; sheoak over saltbush

A flora and vegetation survey was conducted over the application area by GHD in September 2010 (GHD, 2010). The application area comprised the following vegetation types;

LW1: Low woodland of *Eucalyptus oleosa* with scattered *Casuarina pauper* over *Eremophila interstans* subsp. *interstans*, *Santalum acuminatum*, *Eremophila scoparia*, *Senna artemisioides* subsp. *filifolia*, *Cratystylis conocephala*, *Halgania andromedifolia*, *Eremophila glabra* and *Scaevola spinescens* over *Maireana sedifolia* and *Eremophila parvifolia* subsp. *auricampa*.

LW2: Low woodland of *Eucalyptus salubris* over *Eremophila scoparia*, *Pimelea microcephala*, *Senna artemisioides* subsp. *filifolia*, *Eremophila ionantha*, *Eremophila maculate* subsp. *brevifolia* and *Lycium austral* over *Maireana sedifolia*.

OW1: Open mixed woodland of *Eucalyptus salmonophloia*, *E. salubris* and *E. oleosa* with occasional *E. celastroides* subsp. *celastroides* and *Casuarina pauper* over *Eremophila scoparia*, *Senna artemisioides* subsp. *filifolia*, *Eremophila glabra* and *Scaevola spinescens* over *Maireana sedifolia*.

OW2: Open mixed woodland of *Eucalyptus lesouefii*, *E. salubris*, *E. oleosa* and occasional *Casuarina pauper* over *Eremophila glabra* and *Lycium australe* over *Maireana sedifolia*.

S1: Mixed shrubland of *Eremophila scoparia*, *Senna artemisioides* subsp. *filifolia*, *Eremophila glabra*, *Acacia inceana* subsp. *inceana* and *Scaevola spinscens* over *Maireana sedifolia* and *Cratystylis conocephala* over *Eremophila parvifolia* subsp. *auricampa* with occasional *Casuarina pauper*.

LS1: Low shrubland of *Cratystylis subspinscens*, *Atriplex vesicaria*, *Maireana amoena*, *Frankenia* spp, *Tecticornia disarticulata*, *Maireana georgei*, *Maieana glomerata* over *Disphyma crassifolium* with occasional *Callitris preissii*, *Eremophila miniata*, *Dodonaea viscosa* subsp. *angustissima*, and *Eremophila scoparia*.

LS2: Low shrubland of *Tecticornia indica*, *Atriplex vesicaria*, *Maireana amoena*, *M.glomerata*, *M.tomentosa* subsp. *tomentosa* and *Frankenia* spp over *Sclerolaena eurotioides* and *Disphyma crassifolium*.

LS3: Low shrubland of *Tecticornia peltata*, *Swainsona purpurea*, *Scaevola collaris*, *Gunniopsis quadrifida*, *Maireana glomerifolia*, *Frankenia pauciflora*, *Atriplex nana* and *Disphyma crassifolium*.

Clearing Description

Intermin Resources Limited (Intermin) has applied to clear up to 80 hectares of native vegetation, within an application area of approximately 175 hectares, for the purpose of mineral production. The clearing is for the development of a mine pit, waste rock dump, access tracks, firebreak deviation and rehabilitation stock piles for topsoil and caprock.

Vegetation will be cleared by dozers. Vegetation will be stockpiled and used in rehabilitation.

Vegetation Condition

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994);

To

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

Comment

The application area is located with the Goldfields region of Western Australia and is situated approximately 10 kilometres north-west of Kalgoorlie.

The vegetation condition was assessed by botanists from GHD (2010).

The application area contains signs of historical disturbance, most notable being access tracks and firebreaks.

Intermin was granted CPS 4090/1 in 2011 authorising the clearing of 35.4 hectares in an area similar to the current application area. No clearing was undertaken under this permit.

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 lies within the Eastern Goldfields (COO3) subregion of the Coolgardie Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). At a broad scale, vegetation of the Eastern Goldfields subregion consists of Mallees, acacia thickets and shrub-heaths on sandplains; Eucalyptus woodlands around salt lakes, on ranges and in valleys; dwarf shrublands of samphire and Dodonaea shrublands on basic graninulites of the Fraser Range (CALM, 2002). The area is rich in endemic acacias. The Rowles Lagoon and Clear and Muddy Lakes are located within this subregion and form the largest semi-permanent freshwater complex in the region (CALM, 2002).

Three vegetation associations were identified within the application area, containing a total of 110 taxa from 30 families (GHD, 2010). Of these, 104 taxa were native plant species (GHD, 2010). The vegetation within the application area is considered moderately diverse and is not restricted to the application area (GHD, 2010).

No Threatened or Priority Ecological Communities or Threatened flora species were identified within the application area (GHD, 2010). An individual of the Priority 1 Flora species *Eremophila praecox* was identified within the application area (GHD, 2010). It was found growing in the footprint of the proposed waste dump (GHD, 2010). It is known from seven records and its distribution ranges from just north of Kalgoorlie to near Coolgardie (GHD, 2010). The Department of Environment and Conservation have advised GHD that while it is

likely to be *Eremophila praecox*, the specimen could not be confirmed as it was not flowering at the time of the survey (GHD, 2010). The removal of this individual is unlikely to have a significant impact on the species.

Six weed species were found during the flora survey (GHD, 2010). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. This can in turn lead to greater rates of infestation and further loss of biodiversity if the area is subject to repeated fires. None of these species are listed as "Declared Plant" species under the *Agriculture and Related Resources Protection Act 1976* by the Department of Agriculture and Food. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A fauna assessment of the Teal Gold Project area was undertaken by GHD (GHD, 2010). This consisted of a fauna reconnaissance survey conducted on 27 September 2010 and search of the Western Australia Museum and DEC Naturemap online databases. A total of 19 bird species, four mammal and three reptile species were recorded within the application are during the reconnaissance survey (GHD, 2010). The application area does not contain any significant fauna habitat features, and the fauna habitats present were identified as common and widespread (GHD, 2010). Therefore the application area is not expected to support a high level of faunal diversity.

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

Methodology CALM (2002)
GHD (2010)
GIS Database:
- IBRA WA (Regions - Sub Regions)

(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 fauna assessment of the application area was conducted by GHD (2010). This consisted of a desktop survey and reconnaissance investigation. Based on the fauna assessment conducted by GHD (2010), four broad habitats were identified within the application area:

Mixed woodland over mixed shrubs - considered to provide a medium level of habitat value to fauna (GHD, 2010. The vegetation has good structural diversity with medium sized eucalypts, mallees and a reasonable understory of small and larger shrubs present.

Mixed shrublands - the vegetation present was generally in very good to excellent condition and is also considered to provide a medium level of habitat for fauna (GHD, 2010). The dominant fauna are likely to be the highly mobile bird community, particularly thornbills (GHD, 2010). Ground dwelling reptile species are likely to be less prevalent, given the typically sparse understory and litter layer with this habitat.

Samphire/chenopod shrublands - generally less diverse than the woodland habitat, however the vegetation present was generally in excellent to very good condition and is considered to provide a medium level of habitat value to fauna (GHD, 2010). The fringing vegetation of the unnamed lake was relatively degraded with sparse vegetation cover and poor vegetation health.

Cleared areas - highly disturbed areas devoid of most vegetation and offer little habitat value for fauna.

The fauna reconnaissance conducted by GHD (2010) identified 14 conservation significant fauna that have been previously recorded within a 20 kilometre radius of the application area. Most of these species are migratory or highly mobile and the application area may form part of a much larger home range or be subject to only seasonal visits (GHD, 2010).

The Malleefowl was identified as potentially occurring within the application area. The Malleefowl is typically located in semi-arid to arid shrublands and low woodlands, particularly those dominated by mallee and/or acacias (Benshemesh, 2007). The survey area is considered to be at the north-eastern periphery of its range (GHD, 2010). While Malleefowl may potentially occur within the woodlands of the survey area it is considered unlikely given the level of previous disturbance (GHD, 2010). No evidence of this species presence was recorded during the reconnaissance survey (GHD, 2010).

According to GHD (2010), the fauna habitats available within the application area are well represented in the region. Based on the habitats present, it is considered unlikely that the application area represents significant habitat for fauna indigenous to Western Australia.

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

Methodology Benshemesh, 2007
GHD, 2010

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

Comments

Proposal is not likely to be at variance to this Principle

According to available databases there are no known records of Threatened Flora within the application area (GIS Database).

A flora and vegetation survey was conducted by GHD in September 2010 over the application (GHD, 2010). No Threatened Flora species were recorded during the survey (GHD, 2010).

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

Methodology

GHD, 2010
GIS Database:
- Threatened 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

According to available databases, there are no known Threatened Ecological Communities (TEC's) within the application area (GIS Database). No vegetation communities described as a TEC were recorded during the botanical survey of the application area (GHD, 2010). The nearest known TEC (Mount Belches) is located approximately 59 kilometres south-east of the application area (GIS Database).

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

Methodology

GHD, 2010
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 Coolgardie Interim Biogeographical Regionalisation of Australia (IBRA) biogegion (GIS Database). Approximately 98.19% of the pre-European vegetation remains within the Coolgardie Bioregion (Government of Western Australia, 2011).

The vegetation in the application area has been broadly mapped as Beard vegetation associations:

125: Bare areas; salt lakes
468: Medium woodland; salmon gums and goldfields blackbutt
540: Succulent steppe with open low woodland; sheoak over salt bush

Over 90% of Beard vegetation associations 125, 468 and 540 remains within the Coolgardie bioregion (see table below) (Government of Western Australia, 2011).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion – Coolgardie	12,912,204.63	12,677,931.88	~ 98.19	Least Concern	10.87
Beard veg assoc. – State					
468	592,022	592,022	~100	Least Concern	4.28
Beard veg assoc. – Bioregion					
125	3492381.05	3269266.10	93.61	Least Concern	5.35
468	592022.40	583902.80	98.63	Least Concern	4.17
540	202423.88	200158.84	98.88	Least Concern	28.10

* Government of Western Australia (2011)
** Department of Natural Resources and Environment (2002)

A review of aerial photography indicates that the application area is not significant as a remnant of native vegetation at a local scale.

The vegetation within the application area is not considered to be a remnant of vegetation in an area that has been extensively cleared.

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 (2011)
GIS Database:
- IBRA WA (Regions - Sub Regions)
- 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 wetlands or watercourses within the application area however, several non-perennial watercourses and an non-perennial salt lake are present (GIS Database).

The flora survey conducted by GHD identified one vegetation community associated with a non-perennial salt lake (LS3). The lake is part of a broader chain of salt lakes orientated in a south-west direction (GHD, 2010). The lake is predominantly dry but may hold water following heavy rain (GHD, 2010). Only a small portion of this vegetation community occurs within the application area and it has been identified as being in poor condition (GHD, 2010). Furthermore, the proposed clearing within this area is for a pipeline, therefore the clearing will be linear in nature and not impact a large amount of this community (Intermin Resources Limited, 2013).

Based on the above the proposed clearing is at variance to this principle however it is considered unlikely that the proposed clearing will have a significant impact upon vegetation associated with a watercourse.

Methodology GHD (2010)
Intermin Resources Limited (2013)
GIS Database:
- Hydrology - 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**
The application area is located within the Kambalda Soil-Landscape Zone (Tille, 2006). This zone is characterised by flat to undulating plains (with hills, ranges and some salt lakes and stony plains) on greenstone and granitic rocks of the Yilgarn Craton (Tille, 2006).

The application area is characterised by a broad plain of little relief, with a slight but gradual fall in elevation towards the salt lake system to the west (GHD, 2010). There are no permanent watercourses or wetlands within the application area (GIS Database). Poorly defined drainage lines within the application area are only likely to flow following major rainfall events (Intermin Resources Ltd, 2010). It is therefore unlikely that the area will be subject to significant water erosion.

The application area has an annual average evaporation rate of approximately 10 times the annual average rainfall (Bureau of Meteorology, 2013; GIS Database). Based on this information, surface flow during normal rainfall events are likely to be shortlived and recharge to groundwater would be considered minimal. This would reduce the likelihood of salinity increasing as a result of the proposed clearing.

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

Methodology Bureau of Meteorology (2013)
Intermin Resources Ltd (2010)
GHD (2010)
Tille (2006)
GIS Database:
- Hydrology - Linear

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments **Proposal is not likely to be at variance to this Principle**
The application area is not located within a conservation reserve (GIS Database). The nearest conservation reserve is the Kalgoorlie Arboretum located approximately 8 kilometres south-east 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:
- 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**
The application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database).

The local area receives an average rainfall of approximately 264 millimetres per year (Bureau of Meteorology, 2013; GHD, 2010). Given the area experiences a pan evaporation rate of approximately 2665 millimetres per year, approximately ten times the average annual rainfall (GHD, 2010) there is likely to be little surface water flow during normal seasonal rains.

The application area is characterised by a broad plain of little relief, with a slight but gradual fall in elevation towards the salt lake system to the west (GHD, 2010). Sheet flow is likely to occur following periods of heavy rainfall (GHD, 2010). However, as drainage lines within the application area are poorly defined and the application area is subject to lower than average rainfall (GHD, 2010), the proposed clearing is not likely to cause sedimentation or deteriorate the quality of surface water in the surrounding areas.

An unnamed salt lake system is located adjacent to the application area (GIS Database). Groundwater within the application area is considered to be saline as it has an estimated 100,000 milligrams per Litre Total Dissolved Solids (TDS) (Intermin Resources Ltd, 2010). As the groundwater is already saline (GHD, 2010) and the groundwater at the application area is estimated to be at 40-50 metres below ground level (Intermin Resources Ltd, 2010), clearing within the application area is unlikely to alter the existing groundwater quality.

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

Methodology Bureau of Meteorology (2013)
Intermin Resources Ltd (2010)
GHD (2010)
GIS Database:
- Hydrology - Linear

(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 located in the Coolgardie bioregion and is characterised by hot summers and mild wet winters (ANRA, 2010).

Rainfall patterns are typically associated with cold fronts in winter and thunderstorms and rain bearing depressions occurring in summer (GHD, 2010). Average annual rainfall for the application area is relatively is low at 264 millimetres (GHD, 2010). The average annual evaporation rate of 2665 millimetres (GHD, 2010) is approximately 10 times the average annual rainfall and any surface water resulting from normal rainfall events is likely to be relatively short lived.

There are no permanent watercourses within the application area (GHD, 2010). While drainage lines are present within the application area these are poorly defined and only likely to flow following major rainfall events (GHD, 2010).

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

Methodology ANRA, 2010
GHD, 2010

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

Comments

There is one Native Title Claim (WC10/14) over the area under application (GIS Database). This claim has been filed at the Federal Court of Australia. 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 Page 3 clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

According to available databases there are no Aboriginal Sites of Significance within the application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no 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.

The clearing permit application was advertised on 25 February 2013 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

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

4. References

ANRA (2010) Australian Natural Resources Atlas, Natural Resource Topics- Rangelands Overview Coolgardie, Availableonline at http://www.anra.gov.au/topics/rangelands/overview/wa/ibra-coo.html Accessed 10 January 2011.

Benshemesh, J (2007) National Recovery Plan for Malleefowl, Department for Environment and Heritage, South Australia.

Bureau of Meteorology (2013) BOM Website - Climate Averages by Number, Averages for Coolgardie Post Office. Available online at http://www.bom.gov.au/climate/averages/tables/cw_012038.shtml 17 March 2013.

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

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.

GHD (2010) Report for Teal Gold Project Biological Survey October 2010. Unpublished report for Intermin Resources Limited, Kalgoorlie, Western Australia.

Government of Western Australia (2011) 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.

Intermin Resources Limited (2010) Teal Gold Project: Kalgoorlie. Application for a Clearing Permit.

Intermin Resources Limited (2013) Teal Gold Project: Kalgoorlie. Application for a Clearing Permit.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Tille. P. (2006) Soil-landscapes of Western Australia's Rangelands and Arid Interior. Technical Report 313. Department of Agriculture and Food, Western Australia. ISSN 1039-7205.

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.