Department of Industry and Resources

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 2551/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Robe River Pty Ltd**

1.3. Property details

Property: *Iron Ore (Cleveland-Cliffs) Agreement Act 1964,* Mineral Lease 248SA (AML70/248)
Local Government Area: Shire Of Ashburton
Colloquial name: Mesa D and Mesa E Exploration Drilling

1.4. Application

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

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 at a 1:250,000 scale for the whole of Western Australia and are useful to look at vegetation extent in a regional context. One Beard vegetation association is located within the application area (GIS Database):

583: Hummock grasslands, sparse shrub steppe; kanji and *Acacia bivenosa* over hard spinifex *Triodia basedowii* and *T.wiseana*. According to the Shared Land Information Platform (SLIP, 2007), Beard vegetation association 583 is a grassland with a shrub layer of *Acacia bivenosa* and *A. pyrifolia*, over *Triodia basedowii* and *T. wiseana*.

A flora survey conducted over the application area in November 2007 identified nine vegetation types (Biota, 2008):

Mesa Crests

1. *Acacia arida* shrubland over *Triodia wiseana* open hummock grassland.

Stony Slopes

2. *Eucalyptus leucophloia* scattered low trees over *Acacia arida* (*A. bivenosa*) shrubland over *Triodia wiseana* hummock grassland.

Flats

3. *Acacia xiphophylla* open shrubland over *Triodia wiseana* hummock grassland.

4. *Corymbia zygophylla* low open woodland over *Acacia trachycarpa* open shrubland over *Triodia epactia* hummock grassland.

5. *Corymbia candida* scattered low trees over *Acacia ancistrocarpa*, *A. trachycarpa* open heath over *Triodia epactia*, *T. wiseana* hummock grassland.

6. *Acacia bivenosa*, *A. synchronicia* shrubland over *Triodia wiseana* open hummock grassland.

7. *Acacia bivenosa*, *A. arida* (*A. ancistrocarpa*, *A. atkinsiana*) open heath over *Triodia wiseana* hummock grassland.

Flow Lines

8. *Corymbia hamersleyana* low open woodland over *Grevillea wickhamii*, *Gossypium robinsonii*, *Acacia tumida*, *A. inaequilatera* tall shrubland over mixed *Acacia* low shrubland over *Triodia epactia* and/or *T. wiseana* hummock grassland.

9. *Corymbia hamersleyana* low open woodland over *Acacia arida* open shrubland over *Triodia wiseana* open hummock grassland.

Clearing Description

Robe River Pty Ltd (Robe) have applied to clear 32.1 hectares within two separate application areas totalling 447.3 hectares for the purpose of exploration drilling and maintenance of an existing track.

	Robe intend to develop a total of 309 drill pads of 20 x 20 metres across the two application areas. Clearing will be via bulldozer with the blade up where practicable.
Vegetation Condition	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994).
Comment	Vegetation condition was assessed by Biota (2008) as in very good condition using a modified Trudgeon (1988) scale. This is described as 'some relatively slight signs of damage caused by the activities of European man. For example, some signs of damage to tree trunks caused by repeated fire, the presence of relatively non-aggressive weeds...or occasional vehicle tracks'. This description, and photographs supplied by Biota (2008) suggest the vegetation could be ranked as Excellent using the Keighery (1994) scale.

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 occurs within the Hamersley (PIL3) Interim Biogeographic Regionalisation of Australia (IBRA) sub-region (GIS Database). This sub-region is characterised by Mulga low woodland over bunch grasses on fine textured soils in valley floors, and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges (CALM, 2002). The vegetation described within the application area (Biota, 2008) is typical of the bioregion.

A vegetation survey of the application area and surrounding vegetation identified 70 flora species from 40 families (Biota, 2008). This is a lower level of floral diversity than could be expected given the regional description. Mimosaceae (12 species) and Poaceae (10 species) families show greatest floral diversity within the application area (Biota, 2008). This is typical of the floristics of the Pilbara IBRA Region.

An area search of the Western Australian Museum's Faunabase conducted by the assessing officer suggests that the application area is moderately diverse in reptile species, particularly Skinks (14) and Geckos (13) (Western Australian Museum, 2008). The database search found a total of 41 reptile species from 6 families as potentially occurring within the application area, or within 60 kilometres of the application area. The low faunal diversity recorded within the search area may reflect a lack of survey data in this area given the range of habitat types available and the excellent condition of vegetation within the application area.

One alien weed species, Mimosa Bush (*Vachellia farnesiana*) was recorded within the application area (Biota, 2008). 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 in turn can lead to greater rates of infestation and further loss of biodiversity if the area is subject to repeated fires. Only one individual plant was identified within the application area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle. It is recommended that should a permit be granted, a condition be imposed on the permit in relation to weed management.

Methodology

Biota (2008)
CALM (2002)
Western Australian Museum (2008)
GIS Database:
- Interim Biogeographic Regionalisation of Australia (subregions)

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments

Proposal may be at variance to this Principle

The assessing officer has conducted a search of the Western Australian Museum's online fauna database between the co-ordinates 115.672°E, 21.435°S and 116.295°E, 22.038°S, representing a search area of approximately 900 square kilometres around the application areas.

This search identified 2 Amphibian, 9 Avian, 12 Mammalian and 41 Reptilian species that may occur within the application areas (Western Australian Museum, 2008). Of these, the following species of conservation significance have previously been recorded within the search area: Northern Quoll (*Dasyurus hallucatus*), Orange Leaf-nosed Bat (*Rhinonicteris aurantius*), Star Finch (*Neochmia ruficauda clarescens*), Australian Bustard (*Ardeotis australis*), and a skink (*Notoscincus butleri*).

Robe (2008) conducted a desktop search of the DEC's Threatened Fauna Database. This search used the co-ordinates used by the assessing officer above. In addition to those species of conservation significance listed above, this search identified the following species within the search area (Robe, 2008): Night Parrot (*Pezoporus occidentalis*), Lakeland Downs Mouse (*Leggadina lakedownensis*) and Western Pebble-mound Mouse (*Pseudomys champmani*).

During a flora survey conducted in November 2007, it was noted that there were no Western Pebble-mound

Mouse mounds located within the survey area (Biota, 2008).

Based on habitat requirements, the following species are most likely to occur within the application area:

The Northern Quoll (Schedule 1 - Fauna that is rare or likely to become extinct, *Wildlife Conservation (Specially Protected Fauna) Notice, 2008*) is known to occur in a range of habitats, including Eucalyptus open forest, monsoon rainforest and savannah woodland, but is most abundant (and apparently with less fluctuation) in rocky environments close to free water in creekline areas (Braithwaite et al, 1994). It has undergone substantial decline in the Pilbara and is now known to occur in geographically isolated populations (Firestone, 1999). The rocky mesa's within the application area are close to Robe River and Red Hill Creek, which would experience regular flows during the wet season, and would retain pools of water for long periods. Therefore, the vegetation within the application area may be significant habitat for this species.

The Australian Bustard (DEC Priority 4) prefers tussock grassland, *Triodia* hummock grassland, grassy woodland and low shrublands (Garnett et al, 2000). This species may occur within the application area. However, given the widespread distribution of this species and the extent of native vegetation that is available for this species in the bioregion, the vegetation within the application area is not significant habitat for this species.

Notoscincus butleri (DEC Priority 4) is a small skink that is considered endemic to the Pilbara (Morton et al, 1995). It has been located several times from the Hamersley Ranges and coastal Pilbara area (Western Australian Museum, 2008), commonly occurring in spinifex dominated areas adjacent to riparian habitats (Morton et al, 1995). The vegetation within the application area may be suitable habitat for this species, however, given the large amounts of suitable habitat within the Pilbara region, the vegetation within the application area is not likely to be significant habitat for this species.

The Night Parrot (Schedule 1 - Fauna that is rare or likely to become extinct, *Wildlife Conservation (Specially Protected Fauna) Notice, 2008*) is a very seldom seen bird that occupies dense, low vegetation, which provides them shelter during the day (Australian Museum Online, 2007). Most records come from hummock grasslands with spinifex (porcupine grass, *Triodia sp.*), or from areas dominated by samphire. It has been suggested that birds move into the grasslands when *Triodia* is seeding. They have also been reported in low chenopod shrublands comprising saltbush and bluebush, and from areas of Mitchell grass, *Astrebla sp.* with scattered chenopods. Many records have come from waterholes, and almost all reports from areas of *Triodia* have noted the presence of nearby water. A record of this species from 1967 is located on the Robe River, 18 kilometres north-west of the application areas (GIS Database). As this species is very rare, and little is known of its distribution, it is difficult for the assessing officer to determine what impact, if any, the proposed clearing will have on this species. However, given the proximity of the application area to the Robe River and Red Hill Creek, the vegetation to be cleared may represent significant habitat for this species.

Based on the above the proposed clearing may be at variance to this Principle due to the possible presence of significant habitat for the Northern Quoll and Night Parrot. The assessing officer recommends that should a permit be granted, a condition be placed on the permit to require the permit holder to rehabilitate cleared areas within six months of clearing.

Methodology

Australian Museum Online (2007)
Braithwaite et al (1994)
Firestone (1999)
Garnett et al (2000)
Morton et al (1995)
Western Australian Museum (2008)
GIS Database:
- Threatened Fauna

(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 populations of Declared Rare or Priority flora species occurring within the application areas (GIS Database). The nearest population of conservation significant flora to the application areas is a population of *Terminalia supranitifolia* located approximately 45 kilometres to the east.

A flora survey was conducted over the application areas in November 2007 (Biota, 2008). This involved a desktop review of available databases and literature to identify vegetation types and conservation significant species that may occur within the survey area. A field based survey then recorded vegetation types within the survey area and attempted to locate conservation significant species based on habitat preference. The survey and subsequent report adequately meet the requirements of EPA Guidance Statement 51 'Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia' (EPA, 2004).

As a result of this flora survey, no populations of Declared Rare or Priority flora species were located within the application areas. Populations of an undescribed species of spinifex, *Triodia sp.* Robe River, were located

intermittently throughout the survey area, predominantly on the crest of Mesa D (Biota, 2008). The species is common on rocky mesas near Pannawonica but appears to be restricted to this locality (Trudgeon, 2003 as cited in Biota, 2008). Based on this information, it is not likely that the vegetation within the application areas is necessary for the continued maintenance of significant habitat for this species.

The assessing officer notes that within the survey report Biota state "no Priority species would be expected to occur in the habitats present within the study area" (Biota, 2008). This is an erroneous assumption. The vegetation habitats present, whilst common within the Hamersley Ranges, would most certainly be suitable habitat for many Priority flora species found within the Hamersley IBRA sub-region. However, it is not expected that the vegetation within the application areas is significant for the conservation of Priority flora species.

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

Methodology Biota (2008)
EPA (2004)
GIS Database:
- Declared Rare and Priority Flora List

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

Comments **Proposal is not likely to be at variance to this Principle**
According to available databases, no Threatened Ecological Communities (TEC) occur within the application area. The closest TEC occurs approximately 116 kilometres east of the application area (Stygofaunal communities of the Millstream Freshwater Aquifer) (GIS Database).

A vegetation survey conducted in November 2007 did not locate any TEC within either the application area, nor the survey area (Biota, 2008).

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

Methodology Biota (2008)
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**
According to available databases, the application area falls within the Pilbara IBRA Bioregion (GIS Database). This bioregion's vegetation extent remains at approximately 100% of its Pre-European extent (see table). Beard vegetation association 583 occurs within the application area (GIS Database). This vegetation associations remains at approximately 100% of its Pre-European extent (see table). This vegetation association is very well represented in conservation estate.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-european % in IUCN Class I-IV Reserves*
IBRA Bioregion – Pilbara	17,804,164	17,794,651	~100	Least Concern	6.3
Beard veg assoc. – State					
583	243,119	243,119	~100	Least Concern	35.3
Beard veg assoc. - bioregion					
583	243,119	243,119	~100	Least Concern	35.3

* Shepherd et al. (2006)
** Department of Natural Resources and Environment (2002)

Therefore, the application area is not part of a remnant of native 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)

Shepherd et al (2006)
GIS Databases:
- 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

According to available databases, there are no watercourses or wetlands within the application area (GIS Database).

Analysis of aerial photography reveals there are many minor drainage lines within the application area, channelling surface water from the mesa slopes to eventually flow into the Robe River. According to the Bureau of Meteorology, the applicaiton area receives a low average annual rainfall of approximately 399.9 millimetres per year, with most rain events occurring between December - March (BoM, 2008). These rainfall events are most likely to be the result of cyclonic or thunderstorm activity and are likely to be brief but heavy. As a result the drainage lines in the application area would only experience water flow during these times of intense rainfall and would remain dry for the majority of the year.

The vegetation types within these drainage lines have been described by Biota (2008) as:

- *Corymbia hamersleyana* low open woodland over *Grevillea wickhamii*, *Gossypium robinsonii*, *Acacia tumida*, *A. inaequilatera* tall shrubland over mixed *Acacia* low shrubland over *Triodia epactia* and/or *T. wiseana* hummock grassland.

- *Corymbia hamersleyana* low open woodland over *Acacia arida* open shrubland over *Triodia wiseana* open hummock grassland.

Neither of these vegetation types are representative of riparian vegetation.

The application area occurs approximately 2 kilometres from the Robe River. It is not expected that the proposed clearing will significantly impact the riparian vegetation within the Robe River.

Based on the above, the proposed clearing is at variance to this Principle. However, the clearing of vegetation within the drainage lines is not expected to significantly impact downstream environmental values.

Methodology

Biota (2008)
BoM (2008)
GIS Database:
- Yarraloola 1.4M Orthomosaic
- Hydrography, Linear
- Hydrography, Linear (Heirarchy)

(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 has been surveyed by the Department of Agriculture and Food (Van Vreeswyk et al 2004), and is comprised of the following land system (GIS Database):

- Robe

The Robe land system is described as low limonite mesas and buttes supporting soft spinifex (and occasionally hard spinifex) grasslands (Van Vreeswyk et al, 2004). An analysis of aerial photography reveals the application areas are most likely to fall within the 'Low plateau, mesa and butte', 'Lower Slope, 'gravelly plain' and 'Drainage floor and channel' land units. None of these land units are susceptible to erosion due to the abundance of surface mantles and gravels.

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

Methodology

Van Vreeswyk et al (2004)
GIS Database:
- Rangeland Land System Mapping - DA

(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 at variance to this Principle

According to available databases, the nearest conservation estate is located approximately 25 kilometres south-west of the application areas (Cane River Conservation Park) (GIS Database). At this remote distance, the vegetation within the application areas would not contribute to the environmental values of the Cane River Conservation Park, nor would it provide a buffer or ecological linkage to the Cane River Conservation Park.

The vegetation within the application areas is mapped as Beard Vegetation Association 583 (GIS Database). Approximately 35% of this vegetation type is located within conservation estate (Shepherd et al, 2006). Consequently, the vegetation within the application area is under no conservation threat.

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

Methodology

Shepherd et al (2006)
GIS Database:
- CALM Managed Lands and Waters
- Pre-European Vegetation

(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 areas do not occur within a Public Drinking water Source Area (DoW, 2008).

The application areas occur within the Pilbara Groundwater Area as proclaimed under the *Rights in Water Irrigation Act, 1914*. Any groundwater extraction within the proclaimed area is subject to licensing by the Department of Water (DoW, 2008). The removal of 32.1 hectares of native vegetation on elevated mesas is not likely to significantly impact on the level or quality of groundwater in the area.

In addition, any taking or diverstion of surface water in this proclaimed area for purposes other than domestic and/or stock watering is also subject to a licence by the Department of Water (DoW, 2008). Any interference with the bed or banks of a watercourse in this proclaimed area will require a permit (DoW, 2008).

Many small ephemeral watercourses occur within the application area, which is part of the Robe River catchment area. The Robe River is only likely to flow following periods of intense rainfall associated with cyclonic or thunderstorm activity. The river is high in sediments when flowing. It is not likely that the proposed clearing will significantly add to the sediment load in the Robe River.

Therefore, the proposed clearing will not significantly impact on the quality of surface water or groundwater.

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

Methodology

DoW (2008)

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

Comments

Proposal is not likely to be at variance to this Principle

The application area experiences an arid, tropical climate with a wet summer season and a dry winter season (BoM, 2008). Most rainfall is received during the wet season, but falls can be variable (BOM, 2008). Rain can either be sporadic (local thunderstorms), or heavy and intense (cyclonic events). It is likely that during times of intense rainfall there may be some localised flooding in adjacent areas. However, the small area to be cleared (32.1 hectares) in relation to the size of the catchment area (757,138 hectares; GIS Database) is not likely to lead to an increase in flood height or duration within the application area.

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

Methodology

BoM (2008)
GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There is a native title claim over the area under application: WC99/012 (GIS Database). The claim has been registered with the National Native Title Tribunal. However, the mining tenement has been granted in accordance with the future act regime of the *Native Title Act, 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future

act under the *Native Title Act, 1993*.

A search of available databases reveals there is one known Aboriginal sites of significance intersecting with the application area; P06576 (GIS Database). Hamersley Iron (2008) have advised that this heritage site will be avoided. It is the proponent's responsibility to comply with the *Aboriginal Heritage Act, 1972* and ensure that no sites of Aboriginal significance are damaged though the clearing process.

The application areas occur within the Pilbara Groundwater Area as proclaimed under the *Rights in Water Irrigation Act, 1914*. Any groundwater extraction within the proclaimed area is subject to licensing by the Department of Water (DoW, 2008). The proponent is required to obtain permits to extract groundwater in this area.

The application areas occur within a proclaimed area under the *Rights in Water Irrigation Act, 1914*. Any taking or diverstion of surface water in this proclaimed area for purposes other than domestic and/or stock watering is subject to a licence by the Department of Water (DoW, 2008). The proponent is required to obtain a Beds and Banks Permit in order to disturb any water course in the application area.

One submission was received from an interested party who raised no objections regarding the proposed clearing.

Methodology

DoW (2008)
GIS Database:
- Native Title Claims
- Aboriginal Sites of Significance

4. Assessor's comments

Comment

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

It is recommended that should a permit be granted, conditions be endorsed on the permit with regard to weed management, rehabilitation, recording and reporting areas cleared.

5. References

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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.
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.