Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4211/1
Permit type: Purpose Permit

1.2. Proponent details

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

1.3. Property details

Property: Exploration Licence 69/2032
Local Government Area: Shire of Ngaanyatjarraku
Colloquial name: Musgraves Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 31 March 2011

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard vegetation associations have been mapped at a 1:250,000 scale for the whole of Western Australia. Four Beard vegetation associations have been mapped within the application area (Shepherd, 2009; GIS Database). **18:** Low woodland; mulga (*Acacia aneura*); **39:** Shrublands; mulga scrub; **95:** Hummock grasslands, shrub steppe; *Acacia* and *Grevillea* over *Triodia basedowii*; and **230:** Mosaic: medium sparse woodland; desert oak between sand dunes/hummock grasslands, grass steppe; hard spinifex, *Triodia basedowii*. No vegetation surveys have been undertaken over the application areas, therefore, the vegetation communities have not been described or mapped for these areas in any further detail than Beard vegetation mapping.	Traka Resources Limited (Traka) has applied to clear up to 5.14 hectares of native vegetation within an application area totalling approximately 18,800 hectares for the purpose of mineral exploration. The clearing will comprise of drill pads and temporary access tracks. The exploration activities are part of Traka's exploration drilling program in the Musgraves area, approximately 600 kilometres north-east of Laverton. Vegetation will be cleared using either hand clearing or mechanical equipment with the blade up. Vegetation and topsoil will be stockpiled and respread over the disturbed areas once the exploration work is completed.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994). To Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).	The vegetation condition has been inferred from orthophotos, field photographs and historical land uses. Historical exploration activities and disturbances such as from feral camels may have degraded some parts of the application area to a "very good" condition. Given the remoteness of the location and the limited mining activities in the area, it is likely that some of the application area is in "excellent" condition.

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 may be at variance to this Principle

The application area occurs within the Mann-Musgrave Block subregion of the Central Ranges Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion comprises of a high proportion of Proterozoic ranges including both volcanic and quartzites and derived soil plains, interspersed with red Quaternary sandplains with some permian exposure (CALM, 2002). The sandplains support low open woodlands of either Desert Oak or Mulga over *Triodia basedowii* hummock grasslands. Low open woodlands of Ironwood (*Acacia estrophiolata*) and Corkwoods (*Hakea* spp.) over tussock and hummock grasses often the fringe ranges. The ranges support mixed wattle scrub or *Callitris glaucophylla* woodlands over hummock and tussock grasslands (CALM, 2002).

The vegetation within the application area is broadly mapped as Beard vegetation types 18, 39, 95 and 230 (GIS Database). These vegetation associations are common and widespread throughout the Central Ranges bioregion, with over 99% of the pre-European vegetation extent remaining for each association (Shepherd, 2009; GIS Database). No on-ground flora or vegetation surveys have been undertaken over the application area and it is likely a greater number of vegetation types would occur if the area was mapped at a local scale (ENV Australia, 2011).

According to available databases there are no known records of Declared Rare Flora (DRF), Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) within the application area or within a 500 kilometre radius of the application area (GIS Database). No Priority flora species have been recorded within the application area but on-ground flora surveys have not been undertaken (ENV Australia, 2011; GIS Database). ENV Australia (2011) conducted a desktop survey of available databases using a 50 kilometre search radius, and nearby reconnaissance survey reports, and compiled a list of Priority flora expected to occur within the application area. Sixteen Priority flora species are known from the search area and, based on inferred habitats, eight species are considered likely to occur in the application area, five species considered possible to occur and three species are considered unlikely to occur (ENV Australia, 2011). Potential impacts to Priority flora as a result of the proposed clearing may be minimised by the implementation of a flora management condition.

The presence and abundance of weeds in the application area is unknown. The presence of weed species would lower the biodiversity value of the application area. Care must be taken to ensure that the proposed clearing activities do not spread or introduce weed species to non-infested areas. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A search of the Department of Environment and Conservation's (DEC) NatureMap revealed records of 37 bird, seven mammal and 16 reptile species within a 40 kilometre radius, including one introduced species (DEC, 2011). Due to the remote location and lack of studies there is limited information on the faunal assemblages expected in the Central Ranges region (ENV Australia, 2011).

The deficiency in biological survey data from the area, both supplied by the applicant and available from other sources, brings a level of uncertainty when assessing the level of biological diversity of the application area. However, the broad-scale vegetation types and fauna habitat types are common and widespread both locally and regionally. Given the small area proposed to be cleared (5.14 hectares), it is not likely that the proposed clearing will have any significant impact on biodiversity at a regional scale.

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

Methodology

CALM (2002)
DEC (2011)
ENV Australia (2011)
Shepherd (2009)
GIS Database:
- Declared Rare and Priority Flora List
- IBRA WA (Regions - Subregions)
- Pre-European Vegetation
- Threatened Ecological Sites Buffered

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

Comments

Proposal may be at variance to this Principle

No targeted fauna surveys were undertaken within the application area. A fauna database and literature review was conducted by ENV Australia (2011) and the fauna habitats within the application area were predicted using aerial photographs and Beard vegetation mapping.

Four main fauna habitats were identified as having the potential to occur within the application area. These were:

- Minor Drainage Line: Generally consists of open shrubland of mixed *Acacia* species and mallees over *Triodia basedowii*. A moderate diversity of microhabitats is expected with logs, debris and tree hollows;
- Mulga Plain: Consists of low open woodlands of Mulga (*Acacia aneura*) over *Triodia basedowii*, occurring in low lying areas. A moderate diversity of microhabitats is expected, with tree hollows, logs, leaf litter, debris, and soils suitable for digging and burrowing animals;
- Sand Dune/Sandplain: Consists of low shrublands of Mulga (*Acacia aneura*) and Marble Gum (*Eucalyptus gongylocarpa*) over *Triodia basedowii*. Microhabitat diversity is expected to be low, with logs, debris and litter being sparse; and
- Rocky Hill: Comprises rocky landforms that are elevated from the surrounding plains and likely to be characterised by stony soils with simple vegetation structure. The vegetation of this habitat consists of low shrublands of mixed *Acacia* over *Triodia basedowii*. The microhabitats are reliant on substrate rather than vegetation structure as few vegetation associated niches are available and hard pebbly

soil is unsuitable for most burrowing fauna. The rocky substrate provides numerous microhabitats in the form of breakaways, cracks, crevices and possibly caves, and supports a large assemblage of terrestrial fauna (ENV Australia, 2011).

These vegetation communities and associated fauna habitats are considered common and are predicted to occur in the neighbouring tenements (ENV Australia, 2011). There are large areas of intact vegetation outside the application area (GIS Database) and the Central Ranges bioregion is largely uncleared, with approximately 99.97% of pre-European vegetation remaining (Shepherd, 2009; GIS Database).

There are sixteen fauna species listed as Threatened Species under the *Environmental Protection and Biodiversity Conservation Act 1999* or protected under Western Australian legislation that have been located in the vicinity of the application area. Eight of these species may potentially occur within the application area based on habitat type and vegetation mapping associated with the tenement (DEC, 2011; ENV Australia, 2011). These conservation significant species are:

- Australian Bustard (*Ardeotis australis*);
- Black-footed Wallaby (*Petrogale lateralis lateralis*);
- Brush-tailed Mulgara (*Dasycercus blythi*);
- Greater Bilby (*Macrotis lagotis*);
- Malleefowl (*Leipoa ocellata*);
- Northern Marsupial Mole (*Notoryctes caurinus*);
- Rainbow Bee-eater (*Merops ornata*); and
- Striated Grasswren (*Amytornis striatus striatus*).

Some of these species are considered highly mobile and/or have a wide distribution so the clearing is unlikely to significantly impact on the species (ENV Australia, 2011). Other species, such as the Malleefowl, are known mostly from historical records and based on its current distribution the species is not expected to be in the surrounding area. However, the Brush-tailed Mulgara and Greater Bilby are ground-dwelling conservation significant fauna with limited dispersal abilities and are more likely to be impacted on by any development (ENV Australia, 2011). Therefore any core habitat, such as burrows, could be considered significant and should be avoided.

The area proposed to be cleared is small (5.14 hectares), spread over a large application area and there are large amounts of uncleared vegetation in the Central Ranges. However, there is also very little biological knowledge of the region. Only limited fauna information is available for the Central Ranges and Musgraves area due to a lack of fauna surveys being completed in the remote region (ENV Australia, 2011). The conservation values of the application area in regards to fauna, in particular conservation significant species, are uncertain and cannot be fully understood until on-ground fauna surveys are conducted. Potential impacts to conservation significant fauna as a result of the proposed clearing may be minimised by the implementation of a fauna management condition.

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

Methodology

DEC (2011)
ENV Australia (2011)
Shepherd (2009)
GIS Database:
- Finlayson 1.25 m Orthomosaic - Landgate 2002
- IBRA WA (Regions - Subregions)
- Pre-European Vegetation

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

Comments

Proposal may be at variance to this Principle

According to available databases there are no known records of Declared Rare Flora (DRF) within the application area (GIS Database). The nearest recorded DRF is located approximately 635 kilometres south-west of the application area (GIS Database).

There is a general lack of knowledge of flora and vegetation in the Central Ranges bioregion with no systematic surveying on a regional scale (CALM, 2002; ENV Australia, 2011). There was no additional surveying of the application area by the applicant and the desktop analysis supplied is based on the limited number of previous biological surveys that have been conducted in the region (ENV Australia, 2011). This limited information makes it difficult to ascertain the significance of the vegetation in the application area to the continued existence of rare flora.

Based on the above, the proposed clearing may be at variance to this Principle. Potential impacts to DRF as a result of the proposed clearing may be minimised by the implementation of a flora management condition.

Methodology

CALM (2002)
ENV Australia (2011)

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

A search of available databases revealed that there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest recorded TEC is located approximately 765 kilometres south-west of the application area (GIS Database). The proposed clearing is not likely to impact on any known TEC.

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

Methodology

GIS Database:
- Threatened Ecological Sites Buffered

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments

Proposal is not at variance to this Principle

The clearing application area falls within the Central Ranges Interim Biogeographic Regionalisation for Australia (IBRA) bioregion in which approximately 99.97% of the pre-European vegetation remains (see table) (Shepherd, 2009; GIS Database). This gives it a conservation status of "Least Concern" according to the Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment, 2002).

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

18: Low woodland; mulga (*Acacia aneura*);
39: Shrublands; mulga scrub;
95: Hummock grasslands, shrub steppe; *Acacia* and *Grevillea* over *Triodia basedowii*; and
230: Mosaic: medium sparse woodland; desert oak between sand dunes/hummock grasslands, grass steppe; hard spinifex, *Triodia basedowii* (Shepherd, 2009; GIS Database).

According to Shepherd (2009), over 99% of all these vegetation associations remain at a state and bioregional level (see table). These vegetation associations would be given a conservation status of "Least Concern" at both a state and bioregional level (Department of Natural Resources and Environment, 2002).

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

	Pre-European Area (ha)*	Current Extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion – Central Ranges	4,701,520	4,700,253	~99.97	Least Concern	-
Beard Veg Assoc. – State					
18	19,892,305	19,890,275	~99.99	Least Concern	2.13
39	6,613,569	6,613,469	~100	Least Concern	7.25
95	1,224,625	1,223,637	~99.87	Least Concern	1.50
230	1,453,288	1,451,349	~99.87	Least Concern	
Beard Veg Assoc. – Bioregion					
18	1,075,927	1,075,180	~99.93	Least Concern	-
39	404,691	404,691	~100	Least Concern	-
95	47,953	47,953	~100	Least Concern	-
230	1,180,953	1,180,953	~100	Least Concern	-

* Shepherd (2009)
** 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)
Shepherd (2009)
GIS Database:
- IBRA WA (Regions - Subregions)
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments

Proposal is at variance to this Principle

There are no permanent watercourses or wetlands within the application area, however, there are several minor non-perennial watercourses within the application area (GIS Database). Most of these minor watercourses flow downslope from the Jamieson Range (GIS Database). Minor flowlines are common throughout the ranges in the region (GIS Database).

ENV Australia (2011) have predicted the fauna habitats within the application area using aerial photography and Beard (1974) vegetation mapping. ENV Australia (2011) have predicted the habitat 'Minor Drainage Line' will occur and this is associated with minor watercourses. The vegetation in the 'Minor Drainage Line' habitat generally consists of open shrubland of mixed *Acacia* spp. and mallees over *Triodia basedowii* (Beard, 1974 as cited in ENV Australia, 2011). This habitat type is also predicted to occur in the neighbouring tenements (ENV, 2011).

Based on the above, the proposed clearing is at variance to this Principle. However, the vegetation types associated with the minor watercourses are common in the local and regional area, and the small area of the proposed clearing is unlikely to have any significant impact on any watercourse or wetland.

Methodology ENV Australia (2011)
GIS Database:
- Geodata, Lakes
- Hydrography, Linear
- Natmap 250K Series Mapping

(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

Traka has applied to clear up to 5.14 hectares within an application area totalling approximately 18,800 hectares. Disturbance will be for access tracks and drill pads using machinery with the blade up to ensure soil is not removed (Traka, 2010). The proposed clearing activities are not likely to result in large areas of disturbed or open land. Given the small size of the proposed activities, the clearing is not likely to result in appreciable land degradation.

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

Methodology Traka (2010)

(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 proposed clearing is not located within a Department of Environment and Conservation (DEC) managed conservation reserve (GIS Database). The nearest conservation reserve is Gibson Desert Nature Reserve, which is located approximately 127 kilometres north-west of the application area (GIS Database). A large proportion of the vegetation in the Central Ranges bioregion remains uncleared, approximately 99.97% (Shepherd, 2009), so it is unlikely that the application area provides an important buffer or ecological linkage to the nature reserve.

The application area occurs within the Register of National Estate site Ranges of the Western Desert (GIS Database). The Ranges of the Western Desert cover approximately 8,016,568 hectares and are a system of ranges with many gorges and valleys. The site is considered significant due to its colourful and spectacular scenery, Aboriginal paintings in Walter James Range, and endemic and rare flora species (Australian Heritage Database, 2011). Despite the area being on the Register of National Estate for natural values, it is considered that the proposed clearing is low impact and of a small scale and will not significantly impact on the environmental values of the area.

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

Methodology Australian Heritage Database (2011)
Shepherd (2009)
GIS Database:
- DEC Tenure
- Register of National Estate

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments

Proposal is not likely to be at variance to this Principle

There are no permanent watercourses or wetlands within the application area (GIS Database). The Central Ranges has an arid climate with an average annual rainfall of 200 mm from both summer and winter rain (CALM, 2002) so any surface water within the application area is likely to remain for only short periods following rainfall events. The proposed clearing is not likely to cause deterioration in the quality of surface water in the local area.

According to the available databases the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database).

The small area of the proposed clearing is unlikely to cause deterioration in the quality of underground water.

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

Methodology CALM (2002)
GIS Database:
- Hydrography, Linear
- Public Drinking Water Source Areas (PDWSAs)

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

Comments

Proposal is not likely to be at variance to this Principle

The application area is located within the Warburton Basin catchment area (GIS Database). Given the size of the area to be cleared (5.14 hectares) in relation to the size of the catchment area (17,195,990 hectares) (GIS Database), the proposed clearing is not likely to increase the potential of flooding on a local or catchment scale.

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

Methodology GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There is one Native Title Claim (WC04/3) over the area under application (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are several registered Aboriginal Sites of Significance within the application area (Site IDs: 2998, 2999, 3000 and 3001) (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment 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 21 February 2011 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 - Determined by the Federal Court

4. References

Australian Heritage Database (2011) Department of Sustainability, Environment, Water, Population and Communities. http://www.environment.gov.au/heritage/index.html (Accessed 1 March 2011).

DEC (2011) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. http://naturemap.dec.wa.gov.au/default.aspx (Accessed 1 March 2011).

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

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.

ENV Australia (2011) Musgraves Flora and Fauna Desktop Review. Unpublished report for Traka Resources Limited, Prepared by ENV Australia Pty Ltd, January 2011.

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

Shepherd, D.P. (2009) 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.

Traka (2010) Additional Information to Accompany the Application for a Clearing Permit (Purpose Permit) on E69/2032. Unpublished report by Traka Resources Limited, December 2010.

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.