



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5474/1
Permit type: Purpose Permit

1.2. Proponent details

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

1.3. Property details

Property: Exploration Licence 69/2403
Local Government Area: Shire of Ngaanyatjaraku
Colloquial name: Musgraves Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 14 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 and are useful to look at vegetation in a regional context. Four Beard vegetation associations have been mapped within the application area (GIS Database):

- 18:** Low woodland; mulga (*Acacia aneura*);
- 19:** Low woodland; mulga between sandridges;
- 39:** Shrublands; mulga scrub; 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 area as part of this application.

Clearing Description Traka Resources Limited (Traka) has applied to clear up to 19.1 hectares of native vegetation within a total application area of approximately 38,888 hectares for the purpose of mineral exploration. The clearing will comprise of 40 drill pads (approximately 1.6 hectares) and drill line tracks (approximately 17.5 hectares). The exploration activities are part of Traka's exploration drilling program in the Musgraves area, approximately 620 kilometres north east of Laverton.

The drill pads will be cleared using raised blade with vegetation stockpiled. Tracks will be driven over to clear.

Vegetation Condition 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).

Comment The vegetation condition has been inferred from orthophotos, nearby clearing permits and a vegetation survey conducted over a small portion of the application area for clearing permit CPS 4244/1 (DMP, 2011).

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). The subregion is comprised 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 fringe the ranges. The ranges support mixed wattle scrub or *Callitris glaucophylla* woodlands over hummock and tussock grasslands (CALM, 2002).

Flora and vegetation surveys have not been undertaken over the application area as part of this application. According to available databases there are no known records of Threatened Flora species, Threatened Ecological Communities or Priority Ecological Communities within the application area or within a 40 kilometre radius of the application area (DEC, 2013; GIS Database). A flora survey undertaken over a small portion of the application area for clearing permit CPS 4244/1 recorded three Priority Flora species (DMP, 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 currently unknown. Two weed species have been recorded within a 40 kilometre radius of the application area. These are *Erodium aureum* and Common Centaury (*Centaureum erythraea*) (DEC, 2013). The presence of weed species has the potential to 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 Conservation and Environment's (DEC's) NatureMap revealed records of 22 bird, one invertebrate, three mammal and ten reptile species within a 40 kilometre radius of the centre of the application area (DEC, 2013). Due to the remote location and lack of studies there is limited information on the faunal assemblages expected in the Central Ranges region.

The shortage of 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 are common and widespread locally and the surrounding area is largely uncleared. Aerial imagery also suggests the widespread availability of similar vegetation communities and landforms, and the application area is not expected to support a higher biological diversity than the adjoining local or regional areas (GIS Database). Given the relatively small area proposed to be cleared (19.1 hectares), it is not likely that the proposed clearing will have any significance on biodiversity at a regional scale.

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

Methodology	CALM (2002) DEC (2013) DMP (2011) GIS Database: - Bates 1.25m Orthomosaic - Landgate 2002 - Dickenson 1.3m Orthomosaic - Landgate 2007 - Finlayson 1.25m Orthomosaic - Landgate 2002 - Gunbarrell 1.3m Orthomosaic - Landgate 2005 - Holt 1.25m Orthomosaic - Landgate 02 - IBRA WA (Regions - Subregions) - Pre-European Vegetation - Threatened and Priority Flora - Threatened Ecological Sites Buffered
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(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

A fauna survey has not been undertaken over the application area. ENV Australia (2011) has conducted a desktop fauna review of four nearby tenements with one of these tenements located adjacent to the application area. A review of aerial photography indicates the vegetations and landforms in the application area are likely to be comparable to those in the adjacent tenement (GIS Database). The information in the desktop review is therefore considered applicable to the application area. The desktop review was undertaken in January 2011 and included a fauna database and literature review and prediction of fauna habitats based on aerial photography and Beard vegetation mapping. The following four broad fauna habitats were identified as having the potential to occur (ENV Australia, 2011):

- 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.

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 (GIS Database).

According to ENV Australia (2011), there are 16 conservation significant fauna species that have previously been recorded in the region. Nine of these species may potentially occur within the application area based on predicted habitat types and broad vegetation mapping (ENV Australia, 2011; GIS Database). These conservation significant species include:

- Australian Bustard (*Ardeotis australis*);
- Black-footed Wallaby (*Petrogale lateralis lateralis*);
- Brush-tailed Mulgara (*Dasyercus blythi*);
- Greater Bilby (*Macrotis lagotis*);
- Malleefowl (*Leipoa ocellata*);
- Northern Marsupial Mole (*Notoryctes caurinus*);
- Great Desert Skink (*Liopholis kintorei*);
- 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, Greater Bilby, Northern Marsupial Mole, Great Desert Skink and Black-footed Wallaby 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 relatively small (19.1 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 ENV Australia (2011)
GIS Database:
- Bates 1.25m Orthomosaic - Landgate 2002
- Dickenson 1.3m Orthomosaic - Landgate 2007
- Finlayson 1.25m Orthomosaic - Landgate 2002
- Gunbarrell 1.3m Orthomosaic - Landgate 2005
- Holt 1.25m Orthomosaic - Landgate 02
- 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

A flora survey has not been undertaken over the application area as part of this application. No Threatened Flora species were recorded during a flora survey conducted over a small portion of the application area for clearing permit CPS 4244/1 (DMP, 2011). According to available databases there are no known records of Threatened Flora within the application area, or within 20 kilometres of the application area (DEC, 2013; GIS Database).

The significance of the vegetation within the application area for the continued existence of Threatened Flora is difficult to ascertain with the limited information provided by the applicant and the general paucity of biological information in the bioregion. Potential impacts to Threatened Flora as a result of the proposed clearing may be minimised by the implementation of a flora management condition.

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

Methodology DEC (2013)
DMP (2011)
GIS Database:
- Threatened and Priority Flora

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

Comments Proposal is not likely to be at variance to this Principle

According to available databases, there are no known Threatened Ecological Communities within the application area or within 500 metres of the application area (GIS Database).

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

Methodology GIS Database:
- Threatened Ecological Sites Buffered

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

Comments Proposal is not at variance to this Principle

The 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) (GIS Database, Government of Western Australia, 2011).

The vegetation of the application area has been mapped as the following Beard vegetation associations (GIS Database):

- 18: Low woodland; mulga (*Acacia aneura*);
- 19: Low woodland; mulga between sandridges;
- 39: Shrublands; mulga scrub; and
- 230: Mosaic: Medium sparse woodland; desert oak between sand dunes/Hummock grasslands, grass steppe; hard spinifex, *Triodia basedowii*.

Over 99% of each of these vegetation associations remain at a state and bioregional level (see table) (Government of Western Australia, 2011). Therefore, the area proposed to be cleared does not represent a significant remnant of native vegetation within an area that has been extensively cleared.

	Pre-European Area (ha)*	Current Extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DEC Managed Lands
IBRA Bioregion – Central Ranges	4,701,520	4,700,200	~99.97	Least Concern	0.00
Beard Veg Assoc. – State					
18	19,892,305	19,843,823	~99.76	Least Concern	6.30
19	4,385,295	4,384,250	~99.98	Least Concern	0.63
39	6,613,569	6,602,580	~99.83	Least Concern	12.13
230	1,453,288	1,451,250	~99.86	Least Concern	0.00
Beard Veg Assoc. – Bioregion					
18	1,075,927	1,075,159	~99.93	Least Concern	0.00
19	902,251	902,170	~99.99	Least Concern	0.00
39	404,691	404,691	~100	Least Concern	0.00
230	1,180,953	1,180,953	~100	Least Concern	0.00

* Government of Western Australia (2011)

** Department of Natural Resources and Environment (2002)

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

Methodology Department of Natural Resources and Environment (2002)

Government of Western Australia (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 not likely to be at variance to this Principle

There are no permanent watercourses or wetlands within the application area (GIS Database). There are four minor ephemeral watercourses that cross slightly into the southern portion of the application area and drain into the surrounding landscape (GIS Database). These comprise a very small portion of the application area (GIS Database).

ENV Australia (2011) describes 'Minor Drainage Line' habitat as comprising open shrubland of mixed *Acacia* spp. and mallees over *Triodia basedowii* (Beard, 1974 as cited in ENV Australia, 2011). This habitat is considered common and is predicted to occur in neighbouring tenements (ENV Australia, 2011).

Given the small area these watercourses comprise and the occurrence of minor drainage lines in the surrounding area, the proposed clearing is unlikely to have any significant impact on any watercourse or wetland.

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

Methodology ENV Australia (2011)
GIS Database:
- Hydrography, linear

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal is not likely to be at variance to this Principle

The Central Ranges bioregion is widely affected by the grazing of feral camel herds, with the camel population increasing exponentially each year (Ward, 2007). Damage by camels is evident in the number of damaged shrubs and trees, such as the local hakeas which are severely damaged or killed by persistent grazing (ENV Australia, 2011).

Traka Resources Limited has proposed to clear 19.1 hectares of native vegetation, distributed over a large application area of approximately 38,888 hectares. Disturbance will be for access tracks and drill pads using machinery with the blade up to ensure soil is not removed, which is not likely to result in large areas of disturbed or open land. Given the nature and scale 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 ENV Australia (2011)
Ward (2007)

(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 does not lie within any conservation areas or Department of Environment and Conservation managed lands (GIS Database). The nearest conservation reserve is Gibson Desert Nature Reserve, located approximately 155 kilometres west, north west of the application area (GIS Database). Based on the distance between the application area and the Gibson Desert Nature Reserve, the proposed clearing is not likely to impact the environmental values of any conservation area.

The application area occurs within the Ranges of the Western Desert Register of National Estate (GIS Database). According to the Australian Heritage Database (2013), the Ranges of the Western Desert cover approximately 8,016,568 hectares and are a system of ranges with many gorges and valleys. The ranges are dominated by spinifex steppe, mulga and mallee scrub (Australian Heritage Database, 2013). 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 (2013)
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 bioregion 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).

Given the low impact nature of the proposed clearing activities, the proposed clearing is not likely 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 (19.1 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 over the area under application: WC04/3 (GIS Database). This claim was determined by the federal court on 29 June 2005. 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*.

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

It is the proponent's responsibility to liaise with the Department of Environment 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 18 February 2013 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims – Determined by the Federal Court

4. References

- Australian Heritage Database (2013) Department of Sustainability, Environment, Water, Population and Communities. <http://www.environment.gov.au/heritage/index.html> (Accessed 7 March 2013).
- CALM (2002) Biological Summary of the 2002 Biodiversity Audit for Western Australia, A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002 - Central Ranges 1 (CR1) - Mann-Musgrave Block subregion, ed. N.L McKenzie, J.E May and S. McKenna, Government of Western Australia, Perth, Western Australia.
- DEC (2013) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. <http://naturemap.dec.wa.gov.au/default.aspx> (Accessed 7 March 2013).
- 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.

DMP (2011) Clearing Permit Decision Report for CPS 4244/1. Prepared by the Department of Mines and Petroleum, 12 May 2011.

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

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

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

Ward, B (2007) Feral Camel Distribution and Abundance of the Warburton Central Ranges and Northern Great Victoria Desert. Draft report Department of Environment and Conservation Perth WA.

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.