



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6240/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Pilbara Sands Holdings Pty Ltd**

1.3. Property details

Property: Mining Lease 45/1219
Local Government Area: Town of Port Hedland
Colloquial name: Wilga Granite Quarry

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 16 October 2014

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

One Beard vegetation association is located within the application area (Government of Western Australia, 2013; GIS Database):

- 93: Hummock grasslands, shrub steppe; kanji over soft spinifex.

A flora and vegetation assessment has been undertaken over Mining Lease 45/1219 and Miscellaneous Licence 45/321 by Coffey Environments Australia (Coffey) in August 2012 (Coffey, 2012). The following vegetation communities were identified within the application area:

S1 - *Acacia inaequilatera* tall shrubland to tall open shrubland over *Triodia epactia* mid-dense hummock grassland on red to orange course sand,

S2 - *Acacia inaequilatera* and *Acacia colei* var. *colei* tall open shrubland over *Triodia epactia* mid-dense hummock grassland on orange to red coarse stony sand with granite pebbles and stones on the surface

The S1 and S2 vegetation communities were considered to occur as a mosaic (Coffey, 2012). The S2 vegetation community generally occurred closer to the granite outcropping where decaying granite occurred as pebbles and gravel on the surface of the soil. The S1 vegetation community occurred further away from the granite outcropping where the pebbly and gravelly surface gave way to coarse sand.

S3 - *Acacia colei* var. *colei* tall open shrubland with scattered *Ficus brachypoda* over open herbland dominated by *Pterocaulon* spp. and members of the Malvaceae and Fabaceae families over *Triodia epactia* hummock

Clearing Description

Wilga Granite Quarry (Phase 2). Pilbara Sands Holdings Pty Ltd (Pilbara Sands) proposes to clear up to 12.25 hectares of native vegetation within a total boundary area of approximately 12.25 for the purpose of mineral production. The project is located approximately 35 kilometres east of Port Hedland, in the Town of Port Hedland.

Vegetation Condition

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

To

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

Comment

Vegetation condition was determined by botanists from Coffey.

The flora survey was undertaken over Mining Lease 45/1219 and Miscellaneous Licence 45/321, with a combined area of approximately 177 hectares. The application area is 12.25 hectares and is located towards the centre of M45/1219.

The flora survey was undertaken in August 2012 (Coffey, 2012). According to EPA Guidance Statement No. 51, the optimal time for undertaking a flora survey in the Pilbara region is six weeks after summer rain (EPA, 2004). Coffey (2012) noted that the vegetation appeared dry and lacked flowers and/or fruiting bodies that assist with identification to species level. As such, Coffey (2012) estimate that 75% of the species expected to occur within the study area was identified.

grassland over very open tussock grassland dominated by *Eriachne mucronata* and *Cymbopogon ambiguus* on very shallow sands on the granite outcrop.

The S3 vegetation community occurred in conjunction with the granite outcropping and the immediate edges (Coffey, 2012). Buffel Grass was recorded as occurring within the S3 vegetation community.

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 Chichester (PIL1) subregion of the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by undulating Archaean granite and basalt plains including significant areas of basaltic ranges (CALM, 2002). Plains support a shrub steppe characterised by *Acacia inaequilatera* over *Triodia wiseana* (formally *Triodia pungens*) hummock grasslands, while *Eucalyptus leucophloia* tree steppes occur on ranges (CALM, 2002).

The flora and vegetation survey undertaken over Mining Lease 45/1219 and Miscellaneous Licence 45/321 recorded 45 native flora species in the study area (Coffey, 2012). Coffey advise that due to the timing of the survey, this figure represents 75% of the total taxa potentially occurring within the study area. Although this is considered to be a high level of flora diversity, Coffey (2012) advises that the vegetation is not considered to be locally or regionally significant.

No Threatened or Priority Ecological Communities were identified within the application area (Coffey, 2012; GIS Database).

No Threatened or Priority flora species were recorded in the study area at the time of the survey (Coffey, 2012). Priority flora species *Euphorbia clementii* (P2), *Heliotropium muticum* (P1) and *Heliotropium parviantrum* (P1) were recognised by Coffey as potentially occurring within the study area but due to the timing of the flora survey, they would not have been identifiable. According to FloraBase (Western Australian Herbarium, 2014), all three of these species are typically found on sandy to sandy loam plains and lower slopes, generally associated with *Triodia* sp. Hummock grassland. Although the study area contains *Triodia epactia* hummock grassland, the application area primarily covers a granite outcrop and not sandy plains (Coffey, 2012; GIS Database). Therefore it is unlikely the proposed clearing will significantly impact on *Euphorbia clementii*, *Heliotropium muticum* and *Heliotropium parviantrum* as more suitable habitat exists outside of the application area.

Coffey (2012) found minimal to no signs of disturbance over the vast majority of the study area. Buffel grass was the only introduced species of flora identified within the study area (Coffey, 2012). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The Pilbara region is known to support a diverse range of fauna species, particularly reptiles and small mammals (CALM, 2002). A search of NatureMap has identified 132 fauna species occurring within 15 kilometres of the application area, consisting of 61 bird, 45 reptile, 18 mammal, 4 amphibian and 2 invertebrate species (DEC, 2014). Although the fauna species diversity is considered to be high, Coffey (2012) has concluded that the fauna assemblage predicted to occur within the study area would be typical based on the habitat types recorded, which are well represented in the Pilbara region.

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

Methodology CALM (2002)
Coffey (2012)
DEC (2014)
Western Australian Herbarium (2014)
GIS Database:
- IBRA WA (Regions - Sub Regions)
- Threatened and Priority Flora
- 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**

Coffey (2012) has conducted a Level 1 fauna survey over tenements L45/321 and M45/1219, which includes the application area. The following fauna habitats were recorded:

- Spinifex on sandy plain
- Rocky outcrop

Based on aerial photography, Rocky outcrop habitat appears to form the majority of the application area (GIS Database). Rocky outcrops have a high habitat value due to their potential to support a number of vertebrate fauna species, particularly reptiles and small mammals (CALM, 2002). Coffey (2012) notes that both of these habitat types are not restricted to the study area. Coffey (2012) has identified multiple rocky outcrops ranging from 2 kilometres to 10 kilometres from the application area. These rocky outcrops are generally no more than 2 kilometres apart and are connected by spinifex on sandy plain habitat (Coffey, 2012). Fauna utilising spinifex on sandy plain and/or rocky outcrop habitat within the application area are not likely to be significantly impacted given the proximity of similar habitat in the local area.

A desktop search undertaken by Coffey (2012) identified 10 conservation significant species that could potentially occur within the study area:

- Crest-tailed Mulgara (*Dasyercus cristicauda*).
- Northern Quoll (*Dasyurus hallucatus*).
- Pilbara Leaf-nosed Bat (*Rhinionictoris aurantius*).
- Ghost Bat (*Macroderma gigas*).
- Fork-tailed Swift (*Apus pacificus*).
- Barn Swallow (*Hirundo rustica*).
- Rainbow Bee-eater (*Merops ornatus*).
- Oriental Plover (*Charadrius veredus*).
- Oriental Pratincole (*Glareola maldivarum*).
- Australian Bustard (*Ardeotis australis*).

The Pilbara Leaf-nosed Bat and Ghost bat may infrequently occur within the application area, however there are no cave structures in the rocky outcrop to provide roosting habitat (Coffey, 2012). The Fork-tailed Swift, Barn Swallow, Rainbow Bee-eater, Oriental Plover, Oriental Pratincole and Australian Bustard are highly mobile and are unlikely to be reliant on the habitat within the application area.

Coffey (2012) has identified that the proposed clearing may impact on habitat for the Northern Quoll and the Crest-tailed Mulgara. In the Pilbara region, Northern Quoll tend to prefer basalt hills, mesas, high and low plateaux, lower slopes, occasional tor fields and stony plains supporting either hard or soft spinifex grasslands (Van Vreeswyk et al. 2004). Coffey (2012) has identified suitable habitat for the Northern Quoll in close proximity to the application area, which is highly connected by spinifex on sandy plain habitat. Pilbara Sands has also excluded some areas of the rocky outcrop as these are archaeological sites (Groundwork, 2014). Given the application area's proximity and connectivity to similar habitat outside of the application area, the proposed clearing is not likely to significantly impact on this species.

Crest-tailed Mulgara occur on sandy dunes with sparse vegetation cover (Department of Environment, 2014). The Crest-tailed Mulgara may potential utilise the spinifex on sandy plain habitat within the application area. There are substantial areas of spinifex on sandy plain habitat directly adjacent to the application area (Coffey, 2012), therefore the proposed clearing is not likely to significantly impact on this species.

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

Methodology CALM (2002)
Coffey (2012)
Department of Environment (2014)
Groundwork (2014)
Van Vreeswyk *et al* (2004)

(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 GIS Databases, there are no known records of Threatened Flora within the application area (GIS Database).

Coffey (2012) did not record any Threatened flora species in their survey of tenements L45/321 and M45/1219.

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

Methodology Coffey (2012)
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

There are no known Threatened Ecological Communities (TECs) in the application area (GIS Database). The nearest TEC is approximately 258 kilometres north-east of the application area (GIS Database).

No TECs were recorded during the vegetation survey by Coffey (2012).

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

Methodology Coffey (2012)
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 Pilbara Biogeographic Regionalisation of Australia (IBRA) bioregion in which approximately 99.58% of the pre-European vegetation remains (see table) (Government of Western Australia, 2013; GIS Database). According to the 'Bioregional Conservation Status of Ecological Vegetation Classes' (Department of Natural Resources and Environment, 2002), this value gives the region a Conservation Status of 'Least Concern'.

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

- 93: Hummock grasslands, shrub steppe; kanji over soft spinifex.

Beard vegetation association 93 retains approximately 99.88% of its pre-European vegetation extent at the state level and 99.88% at the bioregion level.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Pilbara	17,808,657	17,733,583	~99	Least Concern	8.37
Beard vegetation associations - State					
511	3,044,309	3,040,641	~99	Least Concern	1.96
Beard vegetation associations - Bioregion					
93	3,042,114	3,038,471.70	~99	Least Concern	1.96

* Government of Western Australia (2013)

** Department of Natural Resources and Environment (2002)

The area proposed to clear does not represent a significant remnant of native vegetation in the wider regional area.

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 (2013)
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 at variance to this Principle

Available databases show there are no watercourses within the application area (GIS Database).

Coffey (2012) did not record any watercourses or riparian vegetation within the application area.

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

Methodology Coffey (2012)

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 may be at variance to this Principle

The application area intersects the Boolaloo land system (GIS Database). This land system is characterised by Granite hills, domes and tor fields and sandy plains with shrubby spinifex grasslands (Van Vreeswyk et al, 2004). This land system contains predominantly erosional surfaces (Van Vreeswyk et al, 2004).

Pilbara Sands has advised that the potential for land degradation will be minimised through staged works and rehabilitation techniques such as retaining and respreading topsoil and mulching (Pilbara Sands, 2014). Potential increases in land degradation as a result of the proposed clearing may be minimised by the implementation of a stage clearing condition.

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

Methodology Groundworks (2014)

Van Vreeswyk *et al* (2004)

GIS Database:

- Rangeland Land System Mapping

(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 conservation reserve (GIS Database). The nearest conservation area is the 80 Mile Beach Marine Park, which is located approximately 75 kilometres north-east of the application area (GIS Database).

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

Methodology GIS Database:

- DEC Tenure

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

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

According to available databases, the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). There are no permanent water bodies or watercourses within the application area (GIS Database).

The application area experiences an annual average rainfall of 339.1 millimetres and an average annual evaporation rate of 3,400 - 3,600 millimetres per year (BoM, 2014; GIS Database). The only surface water runoff expected would be following significant storm events. The proposed clearing is not likely to impact on the quality of surface water runoff.

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

Methodology BoM (2014)

GIS Database:

- Evaporation Isopleths

- 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 experiences a semi-desert tropical climate with summer cyclonic or thunderstorm rainfall, with an annual average rainfall of approximately 339.1 millimetres per year (CALM, 2002; BoM, 2013). Based on an average annual evaporation rate of 3,400 - 3,600 millimetres (GIS Database), there is likely to be little surface flow during normal seasonal rains. Whilst large rainfall events may result in flooding of the area, the proposed clearing is not likely to lead to an increase in incidence or intensity of flooding.

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

Methodology BoM (2014)
CALM (2002)
GIS Database:
- Evaporation Isopleths

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

Comments

There is one Native Title Claims (WC2005/002) over the area under application (GIS Database). This claim has been determined by the Federal Court of Australia. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no 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 Regulation, the Department of Water, and the Department of Parks and Wildlife, 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 8 September 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions have been received in relation to the application.

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

4. References

- BoM (2013) Climate Statistics for Australian Locations. A Search for Climate Statistics for Shrelley, Australian Government Bureau of Meteorology, Viewed 13 December 2013, http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=136&p_display_type=dailyDataFile&p_stn_num=004036&p_startYear= Accessed 13/10/2014.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management, Western Australia.
- Coffey (2012) Level 1 Fauna, Flora and Vegetation Assessment, M45/1219, Port Hedland. Unpublished report prepared for Pilbara Sands Holdings Pty Ltd.
- Department of the Environment (2014). *Dasyercus cristicauda* in Species Profile and Threats Database, Department of the Environment, Canberra. <http://www.environment.gov.au/sprat>. Accessed 14/10/ 2014.
- 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.
- Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Groundworks (2014) Wilga Granite Quarry Clearing Permit Application - Phase 2. Unpublished report prepared for Pilbara Sands Holdings Pty Ltd.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- DEC (2014) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 13/10/2014.
- Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) Technical Bulletin - An Inventory and Condition Survey of the Pilbara Region, Western Australia, No. 92. Department of Agriculture, Government of Western Australia, Perth, Western Australia.
- Western Australian Herbarium (2014) FloraBase - The Western Australian Flora. Department of Parks and Wildlife. <http://florabase.dpaw.wa.gov.au/> Accessed 13/10/2014.

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.