



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3224/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: BHP Billiton Iron Ore Pty Ltd

1.3. Property details

Property: Iron Ore (Mount Goldsworthy) Agreement Act 1964, Mineral Lease 281 SA (AML 70/281)
Local Government Area: Shire of Ashburton
Colloquial name: Camp Hill Drilling Program

1.4. Application

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

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Vegetation within the application area has been mapped at a 1:250,000 scale as the following Beard Vegetation Associations (GIS Database; Shepherd, 2007):	BHP Billiton Iron Ore has applied to clear up to 30 hectares within an application area of approximately 1,655 hectares for the purpose of mineral exploration (GIS Database). The proposal includes the construction of access tracks, drill pads, drill holes and water bores (BHP Billiton Iron Ore, 2009). Clearing will be by mechanical means. BHP Billiton Iron Ore (2009) will undertake raised blade clearing where possible.	Pristine: No obvious signs of disturbance (Keighery, 1994). to Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).	The vegetation condition was assessed by botanists from Pilbara Flora. The vegetation conditions were described using a scale based on Trudgen (1988) and have been converted to the corresponding conditions from the Keighery (1994) scale.
18: Low woodland; mulga (<i>Acacia aneura</i>);			
82: Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i> ; and			
567: Hummock grasslands, shrub steppe; mulga & kanji over soft spinifex & <i>Triodia basedowii</i> .			
Pilbara Flora undertook a vegetation survey of the application area in November 2008. The following three vegetation types were identified within the application area (Pilbara Flora, 2009):			
1. Mulga plain mosaic;			
2. Hummock grassland mosaic; and			
3. Woodland mosaic in drainage lines.			

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal is not likely to be at variance to this Principle

The application area occurs within the Hamersley (PIL3) Interim Biogeographic Regionalisation of Australia (IBRA) sub-region (GIS Database). At a broad scale vegetation can be described as Mulga low woodland over bunch grasses on fine textured soils in valley floors, and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges (CALM, 2002). The vegetation within the application area has been mapped as Beard Vegetation Associations 18, 82 and 567 which are well represented throughout the bioregion with approximately 100% of the Pre-European extent remaining (GIS Database; Shepherd, 2007).

A flora and vegetation survey was undertaken within the application area by botanists from Pilbara Flora in

November 2008. This survey identified three vegetation types within the application area (BHP Billiton Iron Ore, 2009). The condition of these vegetation types ranged from 'Pristine' to 'Good'.

A total of 110 taxa from 62 genera were recorded from the flora survey area (BHP Billiton Iron Ore, 2009). Given the large size of the application area, the flora recorded does not appear to represent a high level of diversity. The most common families were the Grass family (Poaceae), the Acacia family (Mimosaceae), the Mallow family (Malvaceae) and the Daisy family (Asteraceae) (Pilbara Flora, 2009). There were three species of Priority Flora recorded within the application area (BHP Billiton Iron Ore, 2009). There was two weed species recorded within the application area; Spiked Malvastrum (*Malvastrum americanum*) and Bipinnate Beggartick (*Bidens bipinnata*). The presence of these introduced weed species lowers the biodiversity value of the area proposed to be cleared. Should a permit be granted, it is recommended that a condition be imposed for the purpose of weed management. Based on the number of flora recorded and the extent of the vegetation remaining in the region, the application area is not likely to have a higher level of floristic diversity than surrounding areas.

A fauna survey has been conducted at a site 11 kilometres south of the application area. This survey recorded 126 fauna species; one amphibian, 34 reptiles, 72 birds and 19 mammals (BHP Billiton Iron Ore, 2009). The landforms and fauna habitat within the application area are considered to be well represented within the Pilbara region (BHP Billiton Iron Ore, 2009). Given this, the application area is not likely to have a higher faunal diversity than surrounding areas.

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

Methodology BHP Billiton Iron Ore (2009)
CALM (2002)
Pilbara Flora (2009)
Shepherd (2007)
GIS Database
- Interim Biogeographic Regionalisation of Australia (subregions)
- Pre-European Vegetation

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

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

No formal fauna surveys have been carried out over the application area. A fauna survey has been conducted approximately 11 kilometres south of the application area (BHP Billiton Iron Ore, 2009). This search identified one amphibian, 34 reptile, 72 bird and 19 mammal species (BHP Billiton Iron Ore, 2009). Two habitat types were identified during the vegetation survey of the application area (BHP Billiton Iron Ore, 2009):

1. Plains; and
2. Drainage lines with mosaic vegetation.

These habitat types are similar to ones within the fauna survey area and are considered well represented throughout the Pilbara region (BHP Billiton Iron Ore, 2009). No significant habitat features (i.e. hollows, caves, gorges) are found within the application area (BHP Billiton Iron Ore, 2009).

A number of conservation significant species have the potential to occur within the application area (ENV, 2008). However, based on known habitat requirements and the habitats present, the vegetation within the application area is not likely to represent significant habitat for any conservation significant fauna (BHP Billiton Iron Ore, 2009). Additionally, there are large areas of undisturbed habitat that are protected in the nearby Karijini National Park (GIS Database).

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

Methodology BHP Billiton Iron Ore (2009)
ENV (2008)
GIS Database
- CALM Managed Lands and Waters

(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**

A flora survey of the application area was conducted by botanists from Pilbara Flora during November 2008. No Declared Rare Flora (DRF) was recorded within the application area (BHP Billiton Iron Ore, 2009). Three species of Priority Flora was recorded within the application area (BHP Billiton Iron Ore, 2009):

1. *Rhagodia* sp. Hamersley (P3)
2. *Rostellularia adscendens* var. *latifolia* (P3)
3. *Goodenia nuda* (P3)

Rhagodia sp. Hamersley was recorded at six locations during the survey across all vegetation types (Pilbara Flora, 2009). *Rostellularia adscendens* var. *latifolia* and *Goodenia nuda* were both recorded at three locations within the 'woodland mosaic in drainage lines' vegetation type (Pilbara Flora, 2009). All three species are considered to have a wide distribution throughout the Pilbara region (Pilbara Flora, 2009). Should a permit be granted, it is recommended a condition be imposed for the purpose of flora management.

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

Methodology BHP Billiton Iron Ore (2009)
Pilbara Flora (2009)

(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 Threatened Ecological Communities (TEC's) within the application area (GIS Database). The vegetation survey did not identify any vegetation communities described as a TEC (BHP Billiton Iron Ore, 2009).

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

Methodology BHP Billiton Iron Ore (2009)
GIS Database
- Threatened Ecological Communities

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

Comments Proposal is not at variance to this Principle

The application area falls within the Pilbara Biogeographic Regionalisation of Australia (IBRA) bioregion in which approximately 99.9% of the Pre-European vegetation remains (see table) (GIS Database; Shepherd, 2007).

The vegetation of the application area has been mapped as:

- Beard Vegetation Association 18: Low woodland; mulga (*Acacia aneura*);
- Beard Vegetation Association 82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*;
- Beard Vegetation Association 567: Hummock grasslands, shrub steppe; mulga & kanji over spinifex & *Triodia basedowii*.

According to Shepherd (2007) approximately 100% of Beard Vegetation Associations 18, 82 and 567 remain at both the state and bioregional level. Therefore, the area proposed to clear does not represent a significant remnant of native vegetation within an area that has been extensively cleared.

While a small percentage of the vegetation types within the Pilbara bioregion are protected within conservation reserves, Beard Vegetation Association 567 is adequately protected within the bioregion with 22.4% within Class I-IV reserves (see table).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves (and post clearing %)*
IBRA Bioregion – Pilbara	17,804,187	17,794,646	~99.9	Least Concern	6.3 (6.3)
Beard veg assoc. – State					
18	19,892,305	19,890,195	~100	Least Concern	2.1 (2.1)
82	2,565,901	2,565,901	~100	Least Concern	10.2 (10.2)
567	777,507	777,507	~100	Least Concern	22.3 (22.3)
Beard veg assoc. – Bioregion					
18	676,557	676,557	~100	Least Concern	16.8 (16.8)
82	2,563,583	2,563,583	~100	Least Concern	10.2 (10.2)
567	776,824	776,824	~100	Least Concern	22.4 (22.4)

* Shepherd (2007)

** Department of Natural Resources and Environment (2002)

Options to select from: Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment 2002)

Presumed extinct	Probably no longer present in the bioregion
Endangered	<10% of pre-European extent remains
Vulnerable	10-30% of pre-European extent exists
Depleted	>30% and up to 50% of pre-European extent exists
Least concern	>50% pre-European extent exists and subject to little or no degradation over a majority of this area

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

Methodology Department of Natural Resources and Environment (2002)
Shepherd (2007)
GIS Database
- Interim Biogeographic Regionalisation of Australia
- Pre-European Vegetation

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

Comments Proposal is at variance to this Principle

According to available databases, the application area contains several ephemeral drainage lines (GIS Database). The botanical survey over the application area identified one vegetation type associated with a watercourse within the application area (BHP Billiton Iron Ore, 2009):

- Woodland mosaic in drainage lines.

These ephemeral watercourses generally only ever flow following heavy rainfall events and BHP Billiton Iron Ore (2009) advise that the associated vegetation type is well represented within the local area and the Pilbara. BHP Billiton Iron Ore (2009) indicate that the drilling program will be designed as such to minimise the disturbance to drainage lines.

Given the application area includes ephemeral drainage lines, the proposed clearing is at variance to this Principle.

Methodology BHP Billiton Iron Ore (2009)
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

According to available databases, the application area is comprised of the Boolgeeda and Wannamunna land systems (GIS Database). The Boolgeeda land system is characterised by stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands and mulga shrublands (Van Vreeswyk et al., 2004). The Wannamunna land system is characterised by hardpan plains and internal drainage tracts supporting mulga shrublands and woodlands (and occasionally eucalypt woodlands) (Van Vreeswyk et al., 2004). The Boolgeeda land system has no susceptibility to erosion and the Wannamunna land system has a low susceptibility to erosion. The application area is relatively flat which minimises the susceptibility to erosion (GIS Database). However, disturbances to overland flow processes by inappropriate positioning of construction or infrastructure within the Wannamunna land system can have adverse effects on vegetation (Van Vreeswyk et al., 2004). Efforts should be made to avoid disrupting surface flow within this land system.

The surface soil pH of the application area is 5.5 – 6.0 and there is no known occurrence of acid sulphate soils within the application area (CSIRO, 2009). The average annual evaporation rate is over 6 times the average annual rainfall, so it is unlikely the proposed clearing will result in groundwater recharge causing raised saline tables (GIS Database).

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

Methodology CSIRO (2009)
Van Vreeswyk et al. (2004)
GIS Database
- Evaporation Isopleths
- Rainfall, Mean Annual
- 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

According to available databases, the application area is not located within a conservation area or any Department of Environment and Conservation managed lands (GIS Database). The nearest conservation area is Karijini National Park located approximately 3 kilometres west of the application area (GIS Database). Given the nature of the proposal, at this distance the proposed clearing is not likely to impact on the environmental values Karijini National Park.

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

Methodology GIS Database
- CALM Managed Lands and Waters

(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).

Rainfall in this area is mainly restricted to a wet summer season, where precipitation can be variable (BoM, 2009). Rain can be either intense falls associated with cyclonic events or scattered falls associated with local thunderstorms (Van Vreeswyk et al., 2004). The average annual evaporation rate for the application area is 3400 millimetres and the average annual rainfall is 400 – 500 millimetres (GIS Database). Therefore, during normal rainfall events surface water in the application area is likely to evaporate quickly. However, substantial rainfall events create surface sheet flow which is likely to have a higher level of sediments. During normal rainfall events, the proposed clearing would not likely lead to an increase in sedimentation of watercourses within and outside the application area.

The groundwater salinity within the application area is between 500 – 1000 milligrams per litre of Total Dissolved Solids (TDS) (GIS Database). This is considered to be potable water. Given the size of the area to be cleared (30 hectares) compared to the size of the Hamersley groundwater province (10,166,832 hectares), the proposed clearing is not likely to cause salinity levels within the application area to alter significantly (GIS Database).

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

Methodology BoM (2009)
Van Vreeswyk et al. (2004)
GIS Database
- Evaporation Isopleths
- Groundwater Provinces
- Groundwater Salinity, Statewide
- Public Drinking Water Source Areas (PDWSA's)
- Rainfall, Mean Annual

(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 receives most of its rainfall during the wet summer season, but falls can be variable (BoM, 2009). Rain can either be sporadic (local thunderstorms) or heavy and intense (cyclonic events). It is likely during times of intense rainfall there may be some localised flooding in adjacent areas. However, the proposed clearing is within a low relief alluvial plain and runoff in the area is directed into the broad catchments and drainage systems that commonly withstand large rainfall events (BHP Billiton Iron Ore, 2009).

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

Methodology BHP Billiton Iron Ore (2009)
BoM (2009)

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

Comments

The clearing permit application was advertised by the Department of Mines and Petroleum, inviting submissions from the public. There were no submissions received.

There is one native title claim over the area under application; WC96/061 (GIS Database). This claim has been

registered with the National Native Title Tribunal. However, the mining tenement has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

According to available database, there are four Aboriginal Sites of Significance within the application area (GIS Database). It is the proponents' responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process. Before any ground disturbing activities proceed BHP Billiton Iron Ore conduct an internal project environmental and Aboriginal heritage review to ensure that all heritage sites within the application area are identified and either avoided or approval sought from the Minister under section 18 of the *Aboriginal Heritage Act 1972* (BHP Billiton Iron Ore, 2009).

It is the proponents' 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.

Methodology BHP Billiton Iron Ore (2009)
GIS Database
- Aboriginal Sites of Significance
- Native Title Claims

4. Assessor's comments

Comment

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

Should the permit be granted, it is recommended that conditions be imposed on the permit for the purposes of weed management, flora management, retention of vegetative material and topsoil, record keeping and permit reporting.

5. References

- BHP Billiton Iron Ore (2009) Exploration Drilling Program Camp Hill. Purpose Permit Native Vegetation Clearing Permit Application Supporting Documentation. Unpublished report by BHP Billiton Iron Ore Pty Ltd, Western Australia.
- Bureau of Meteorology, (2009) BOM Website - Climate Averages by Number, Averages for Newman. Available online at: http://www.bom.gov.au/climate/averages/tables/cw_007151.shtml accessed on 10 August 2009.
- Commonwealth Scientific and Industrial Research Organisation (2009) Australian Soil Resource Information System. Available online at: http://www.asris.csiro.au/index_ie.html Accessed on 10 August, 2009.
- 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 (2008) Area C West Fauna Assessment. Unpublished report for BHP Billiton Iron Ore Pty Ltd, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Pilbara Flora (2009) Flora and Vegetation Survey Camp Hill. Unpublished report for BHP Billiton Iron Ore Pty Ltd, Western Australia.
- Shepherd, D.P. (2007) 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- Trudgen M.E. (1988) A Report on the Flora and Vegetation of the Port Kennedy Area. Unpublished report prepared for Bowman Bishaw and Associates, West Perth.
- Van Vreeswyk, A.M.E., Payne, A.L., Hennig, P. and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia. Department of Agriculture, Western Australia.

6. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government.
CALM	Department of Conservation and Land Management, Western Australia.
DAFWA	Department of Agriculture and Food, Western Australia.
DA	Department of Agriculture, Western Australia.
DEC	Department of Environment and Conservation

DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DoE), Western Australia.
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia.
DMP	Department of Mines and Petroleum, Western Australia.
DoE	Department of Environment, Western Australia.
DoIR	Department of Industry and Resources, Western Australia.
DOLA	Department of Land Administration, Western Australia.
DoW	Department of Water
EP Act	Environment Protection Act 1986, Western Australia.
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System.
IBRA	Interim Biogeographic Regionalisation for Australia.
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI	Rights in Water and Irrigation Act 1914, Western Australia.
s.17	Section 17 of the Environment Protection Act 1986, Western Australia.
TECs	Threatened Ecological Communities.

Definitions:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005. Department of Conservation and Land Management, Como, Western Australia*} :-

- P1** **Priority One - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P2** **Priority Two - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P3** **Priority Three - Poorly Known taxa:** taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4** **Priority Four – Rare taxa:** taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R** **Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable):** taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X** **Declared Rare Flora - Presumed Extinct taxa:** taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1** **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2** **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3** **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4** **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna. Department of Conservation and Land Management, Como, Western Australia*} :-

- P1** **Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2** **Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation

status before consideration can be given to declaration as threatened fauna.

- P3** **Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4** **Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- P5** **Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999*)

- EX** **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W)** **Extinct in the wild:** A native species which:
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR** **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN** **Endangered:** A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU** **Vulnerable:** A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD** **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.