Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3481/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Pindan Exploration Company Pty Ltd**

1.3. Property details

Property: Exploration Licence 80/2878
Local Government Area: Shire of Halls Creek
Colloquial name: Azura Copper Prospect

1.4. Application

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

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

Beard Vegetation Associations have been mapped at a 1:250,000 scale for the whole of Western Australia. One Beard Vegetation Association has been mapped within the application area (GIS Database; Shepherd, 2007).

91: Hummock grasslands, sparse tree steppe; snappy gum over soft spinifex.

The application area was surveyed by Outback Ecology staff on 18 October 2009 (Outback Ecology, 2009). The following vegetation types were identified within the application area:

1. *Corymbia opaca* open woodland over *Acacia acradenia* and *Carissa lanceolata* sparse shrubland over *Heteropogon contortus, Triodia wiseana, Cymbopogon procerus* and *Enneapogon purpurascens* mixed open grassland;

2. *Corymbia opaca, Xanthostemom paradoxus* and *Hakea arborescens* open woodland over *Carissa lanceolata* sparse shrubland over *Triodia wiseana,Cyperus vaginatus* and *Heteropogon contortus* mixed open grass and sedges in drainage lines; and

3. *Eucalyptus brevifolia* open woodland over *Acacia lycopodifolia* sparse shrubland over *Triodia wiseana*, *Cymbopogon procerus* and *Heteropogon contortus* mixed grassland (Outback Ecology, 2009).

No weed species were recorded within the application area (Outback Ecology, 2009).

Clearing Description

Pindan Exploration Company Pty Ltd is proposing to clear up to 3 hectares of native vegetation within an area of 41.14 hectares (Outback Ecology, 2009; GIS Database). The proposed program is for exploration drilling works and to reduce fire risk (Pindan Exploration Company Pty Ltd, 2009). The clearing will be via raised grader blade (Pindan Exploration Company Pty Ltd, 2009).

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 application area is located in the Kimberley region, approximately 102 kilometres north-east of Halls Creek (GIS Database). While no active mining or exploration has occurred within the application area, it has been subject to cattle grazing since the early 1800's (Outback Ecology, 2009). The vegetation condition was derived from a vegetation survey conducted by Outback Ecology (2009).

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 Ord (OVP1) subregion of the Ord Victoria Plains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by level to gently undulating plains with scattered hills on Cambrian volcanic and Proterozoic sedimentary rocks; vertosols on plains and predominantly skeletal soils on hills (CALM, 2002). The overall vegetation is grassland with scattered bloodwoods (*Corymbia* spp.) and snappy gum (*Eucalyptus brevifolia*) with spinifex and annual grasses (CALM, 2002).

A vegetation survey of the application area and surrounding vegetation identified 18 flora species belonging to 15 genera from 8 families (Outback Ecology, 2009). This species richness is considered to be above average for the Kimberley area (Australian Heritage Database, 2009).

Two broad floristic formations forming habitat types were recorded over the survey area;

- Grassland with scattered bloodwoods (*Corymbia* spp.); and
- Snappy Gums (*Eucalyptus brevifolia*) with spinifex and annual grasses (Outback Ecology, 2009).

These floristic formations were observed to be both common and widespread in the area, and are unlikely to be of higher biodiversity than the surrounding areas. The proposed clearing is unlikely to have a significant impact on the biological diversity of the region, or comprise of a high level of biological diversity (Outback Ecology, 2009).

No weed species were recorded within the application area (Outback Ecology, 2009). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. This in turn can lead to greater rates of infestation and further loss of biodiversity if the area is subject to repeated fires. Should the permit be granted, it is recommended that appropriate conditions be imposed on the permit for the purpose of weed management.

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

Methodology

Australian Heritage Database (2009)
CALM (2002)
Outback Ecology (2009)
GIS Database
- IBRA WA (Regions - Sub Regions)

(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

Two broad floristic formations forming habitat types were recorded over the survey area;

- Grassland with scattered bloodwoods (*Corymbia* spp.); and
- Snappy Gums (*Eucalyptus brevifolia*) with spinifex and annual grasses (Outback Ecology, 2009).

These floristic formations were observed to be both common and widespread in the area, and are unlikely to be of higher biodiversity than the surrounding areas. The small scale of the proposed development and the lack of specialised habitat suggest that the proposal represents a low risk of significant impact to any conservation significant species.

The fauna habitats identified within the application area are not considered as necessary for the on-going maintenance of any significant fauna habitat. It is likely that equal or higher quality vegetation and fauna habitats would exist throughout the surrounding area, and Kimberley region.

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

Methodology

Outback Ecology (2009)

(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 Declared Rare Flora (DRF) or Priority Flora within the application area (GIS Database).

A flora survey was conducted over the application area by staff from Outback Ecology on 18 October 2009

(Outback Ecology, 2009). The nine drill hole footprints and the area in between, covering approximately 15 hectares, was traversed on foot (Outback Ecology, 2009).

No DRF of priority flora species were recorded during the survey (Outback Ecology, 2009).

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

Methodology Outback Ecology (2009)
GIS Database
- Declared Rare and Priority Flora List

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

Comments **Proposal is not at variance to this Principle**
A search of available databases reveals that there are no Threatened or Priority Ecological Communities (TEC's or PEC's) within the application area (GIS Database).

The nearest TEC (Organic Mound Spring Sedge Land Community) is located approximately 217 kilometres north-west of the application area. At this distance there is little likelihood of any impact to the TEC from the proposed clearing.

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

Methodology GIS Database
- Threatened Ecological Sites

(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 Ord Victoria Plains IBRA bioregion (GIS Database). Shepherd (2007) reports that approximately 99.99% of the pre-European vegetation still exists in this bioregion.

The vegetation in the application area is recorded as Beard Vegetation Association:
91: Hummock grasslands, sparse tree steppe; snappy gum over soft spinifex (GIS Database; Shepherd, 2007).

According to Shepherd (2007) approximately 100% of this Beard Vegetation Association remains within the Ord Victoria Plains bioregion (see table below).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Ord Victoria Plains	5,498,881.12	4,497,161.78	~99.99%	Least Concern	~15.98%
Beard vegetation associations - State					
91	438,283	437,619	~99.8%	Least Concern	~11.2%
Beard vegetation associations - Bioregion					
91	168,408	168,408	~100%	Least Concern	~29.1%

* Shepherd (2007)
** Department of Natural Resources and Environment (2002)

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

Methodology Department of Natural Resources and Environment (2002)
Shepherd (2007)
GIS Database
- Interim Biogeographic Regionalisation for 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 may be at variance to this Principle

According to available GIS Databases, there is one minor non-perennial watercourse within the application area (GIS Database).

Based on vegetation mapping conducted by Outback Ecology (2009) the vegetation of the application area consists of:

- Grassland with scattered bloodwoods (*Corymbia* spp.)
- Snappy gums (*Eucalyptus brevifolia*) with spinifex and annual grasses.

The vegetation present within the application area does not appear to be riparian in nature.

The application area is located in a dry hot tropical, semi-arid environment (CALM, 2002). This region has an average annual rainfall of approximately 718.3 millimetres, and an average annual evaporation rate of approximately 2,800 millimetres (BoM, 2010). Hence, the presence of surface water resulting from significant rain events is relatively short-lived. Therefore, the watercourses present are expected to be dry except following heavy rainfall (CALM, 2002).

Based on the above, the proposed clearing may be at variance to this Principle. However, as the minor drainage lines located within the application area are only likely to flow following significant rainfall, the proposed clearing is unlikely to result in any significant impact to any watercourse or wetland provided natural surface water flow patterns are not disturbed.

Methodology

BoM (2010)
CALM (2002)
Outback Ecology (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 may be at variance to this Principle

The application area is composed of the following land system (GIS Database);

- Dockrell Land System

The Dockrell Land System is described as rocky, mountain ridges on metamorphic rocks, skeletal soils, open stunted woodlands with spinifex (Speck et al, 1964). An analysis of aerial photography for the application area reveals the application area is most likely to fall within the 'stable remnants', 'valley plains' and 'alluvial drainage floors' land units. These land units have a moderate to high risk of wind erosion if vegetative cover is lost (Schoknecht, 2002).

Based on the above, the proposed clearing may be at variance to this Principle. Should the permit be granted, it is recommended that appropriate conditions be imposed on the permit for the purpose of retaining and spreading vegetative material and topsoil.

Methodology

Schoknecht (2002)
Speck et al. (1964)
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 application area occurs within an Environmentally Sensitive Area (ESA) (Register of National Estate), which is the Middle Ord Region (Purnululu) (GIS Database).

According to the Australian Heritage Database (Australian Heritage Database, 2010) the Middle Ord Region has significant natural and Indigenous heritage values. It also supports plant and animal communities and species which are at the limit of their range, which are disjunct or outlying from other populations, or which are endemic to the area (Australian Heritage Database, 2010).

The closest conservation areas to the application area are the Purnululu Nature Reserve (C-class) and the Bungle Bungle National Park, both of which are located approximately 4.5 kilometres to the east (GIS

Database). The Bungle Bungle National Park (which covers a similar range to the Purnululu Nature Reserve) has exceptional natural values in the form of eroded sandstone towers and banded beehive structures of the Bungle Bungle Range (Australian Heritage Database, 2010). This area is located in a transitional climate zone and possesses unique natural and cultural values (Australian Heritage Database, 2010). A rich mixture of species, some of them endemic or on the edge of their ranges are found here, such as the remarkably diverse range of spinifex species present (Australian Heritage Database, 2010).

It is unlikely that the application area contains any of the significant environmental values of conservation areas mentioned above. Furthermore the area proposed to be cleared is small (3 hectares) and is unlikely to have a net impact on the environmental values of any of the conservation areas mentioned above.

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

Methodology Australian Heritage Database (2010)
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).

The groundwater salinity within the application area is approximately 500 - 1,000 milligrams/Litre Total Dissolved Solids (TDS) (GIS Database).This is considered to be potable water. Given the size of the area to be cleared (3 hectares) compared to the size of the Halls Creek Groundwater Province (4,600,599 hectares) (GIS Database), the proposed clearing is not likely to cause salinity levels within the application area to alter significantly.

There are no known groundwater dependent ecosystems within the application area (GIS Database).

The application area is located within a *Rights in Water Irrigation Act, 1914* (RIWI Act) Surface Water Catchment Area (DoW, 2010; GIS Database). The proponent is required to obtain a Permit in order to take or divert surface water within this area. The area is located in a RIWI Act Groundwater Area (DoW, 2010; GIS Database). The proponent is required to obtain permits to abstract groundwater in this area.

The application area is located within a dry hot tropical, semi-arid environment (CALM, 2002). Low annual rainfall (approximately 718.3 millimetres), high evaporation rates (2,800 millimetres/year) and the absence of permanent water bodies and watercourses in the application area (GIS Database; BoM, 2010) would suggest that this area is not prone to flooding under normal rainfall conditions. The small size of the proposed clearing area within the above climate is unlikely to result in significant changes to surface water flows.

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

Methodology BoM (2010)
CALM (2002)
DoW (2010)
GIS Database
- Groundwater Provinces
- Groundwater Salinity, Statewide
- Hydrography - Linear
- Potential Groundwater Dependent Ecosystems
- Public Drinking Water Source Area
- RIWI Act, Surface Water Areas
- RIWI Act, Groundwater Areas

(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 dry hot tropical, semi-arid environment climate with an average annual rainfall of 718.3 millimetres recorded from the nearest weather station at Warmun approximately 45 kilometres north of the application area (CALM, 2002; BoM, 2010).

The application area is located within the Ord River_Upper catchment area (GIS Database). However, the small area to be cleared (3 hectares) in relation to the size of the Ord River_Upper catchment area (4,526,028 hectares) (GIS Database) is not likely to increase the potential for flooding within the application area, local area or within the catchment (GIS Database).

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

Methodology BoM (2010)
CALL (2002)
GIS Database
- Hydrographic Catchments - Catchments

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

Comments

The application area is located within a *Rights in Water and Irrigation Act 1914* (RIWI Act) Surface Water Catchment Area (GIS Database). The proponent is required to obtain a Permit in order to take or divert surface water within this area (DoW, 2010). The application area is located in a RIWI Act Groundwater area. The proponent is required to obtain permits to abstract groundwater in this area.

The proponent is not permitted to obstruct, destroy, impede or otherwise interfere with the flow of any watercourse, race or drain on the tenement. Advice should be sought from the Department of Water in regard to any modification works that may be required (DoW, 2010).

There is one Native Title Claim (WC94_011) over the area under application. This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the 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*.

There are numerous registered Aboriginal sites of significance within close proximity to 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 DoW, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

One public submission was received in regard to this Clearing Permit application. The submission raised concerns regarding the potential impacts of the proposed vegetation clearing on Native Title Rights, Aboriginal Heritage and the environment. The environmental concerns raised in the public submission were addressed under the relevant clearing principles, namely principles (a), (b), (c), (f), (g), (i) and (j).

Methodology DoW (2010)
GIS Database
- Aboriginal Sites of Significance
- Native Title Claims

4. Assessor's comments

Comment

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

It is recommended that should a permit be granted, conditions be imposed on the permit for the purpose of weed management, retention and spreading of vegetative material and topsoil, record keeping and permit reporting.

5. References

Australian Heritage Database (2009) Middle Ord Region (Purnululu), Great Northern Hwy, Argyle Village via Halls Creek, WA, Australia. http://www.environment.gov.au (Accessed 14 December 2009)

BoM (2010) Bureau of Meteorology Website - Climate Averages by Number, Averages for WARMUN. http://www.bom.gov.au/climate/averages/tables/cw_002032.shtml (Accessed 25 January 2010)

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Ord Victoria Plains 1 (OVP1 - Ord subregion) Department of Conservation and Land management, Western Australia

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.

DoW (2010) Water Quality Advice. Advice to assessing officer, Native Vegetation Assessment Branch, Department of Mines and Petroleum (DMP), received (19 January 2010). Department of Water, 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.

Outback Ecology (2009) Panoramic Resources Ltd - Azura Copper Prospect. Targeted Flora Search. Unpublished Report dated November 2009

Pindan Exploration Company Pty Ltd (2009) Application for Purpose Clearing Permit (Purpose Permit) - Supporting

Documentation
Schoknecht N. (2002) Soil Groups of Western Australia. A simple guide to the main soils of Western Australia. Resource Management Technical Report 246. Edition 3
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.
Speck, N.H., Wright, R.L. and Rutherford, G.K. (1964) General Report on Lands of the West Kimberley Area, W.A. Land Research Series No. 9. Commonwealth Scientific and Industrial Research Organisation (CSIRO), Melbourne

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.