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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4138/3
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Robe River Mining Co Pty Ltd**

1.3. Property details

Property: *Iron Ore (Robe River) Agreement Act 1964*, Section 91 Licence 00424-2010_1_279 under the *Land Administration Act 1997;*
Temporary Reserve 70/5461.
Local Government Area: Shire of Roebourne
Colloquial name: Site Access Road Construction

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
20		Mechanical Removal	Construction of Site Access Road

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 24 November 2011

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

Beard vegetation associations have been mapped for the whole of Western Australia. One Beard vegetation association has been mapped within the application area (GIS Database; Shepherd, 2009).

157: Hummock grasslands, grass steppe; hard spinifex, *Triodia wiseana*.

The application area was surveyed by Rio Tinto (2010) in October 2010. The following five vegetation types were recorded within the application area:

AbAstTe: *Acacia bivenosa* scattered shrubs over *Acacia stellaticeps* low open shrubland over *Triodia epactia* hummock grassland;

AcoAaAbAstTwTe: *Acacia colei* var. *ileocarpa, Acacia ancistrocarpa* tall open shrubland over *Acacia bivenosa* open shrubland over *Acacia stellaticeps* low open shrubland over *Triodia wiseana, Triodia epactia* hummock grassland;

AcoGpTeTs: *Acacia colei* var. *colei, Grevillea pyramidalis* tall open shrubland over *Triodia epactia, Triodia schinzii* closed hummock grassland;

AtuAstTe: *Acacia tumida* var. *pilbarensis* tall open scrub over *Acacia stellaticeps* low shrubland over *Triodia epactia* hummock grassland; and

HD: Areas which are completely degraded.

Clearing Description

Robe River Mining Co Pty Ltd is proposing to clear up to 20 hectares of native vegetation within a broader application area of 33.2 hectares for the purpose of constructing a site access road.

Vegetation will be cleared using a blade down technique and topsoil will be stockpiled and used in rehabilitation.

Vegetation Condition

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994);

To

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

Comment

The application area is located in the Pilbara region of Western Australia and is situated approximately 1.9 kilometres north of Wickham (GIS Database).

Clearing permit CPS 4138/1 was granted by the Department of Mines and Petroleum on 10 February 2011 and was valid from 5 March 2011 to 9 December 2012. The clearing permit authorised the clearing of 16 hectares of native vegetation. An application to amend the permit to clear 17 hectares within a boundary of 29.9 hectares was granted by the Department of Mines and Petroleum on 15 September 2011. An application to amend clearing permit CPS 4138/2 was received by the Department of Mines and Petroleum on 5 October 2011. The application requested the permit boundary be increased by 3.3 hectares to 33.2 hectares, and the area permitted to be cleared increased by 3 hectares to 20 hectares. It is considered unlikely that the proposed increase in the permit boundary and area permitted to clear will result in any significant environmental impacts.

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

A vegetation survey of the application area and an adjacent area by Rio Tinto (2010) identified 5 vegetation communities within the application area. This survey identified 83 vascular plant taxa from 51 genera and 26 families within the application area and adjacent areas (Rio Tinto, 2010).

The vegetation associations recorded in the application area are common throughout the Cape Lambert area, therefore it is not likely that the proposed clearing of 20 hectares within the larger boundary of 33.2 hectares will significantly impact on the local biodiversity.

According to available databases, no Priority Ecological Communities (PECs) occur within the application area (GIS Database). The nearest PEC is approximately 3 kilometres south of the application area. This PEC is associated with the vegetation occurring on the Horseflat Land System of the Roebourne Plains. As the application area does not occur within the Horseflat Land System, the proposed clearing is not likely to impact this PEC.

According to a flora and vegetation survey conducted by Rio Tinto (2010), no Priority Flora species were recorded within the application area.

Two introduced vascular plant taxa were recorded within the application area (Rio Tinto, 2010). 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. Neither of these species are listed as 'Declared Plant' species under the *Agriculture and Related Resources Protection Act 1976* by the Department of Agriculture and Food. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A desktop survey of the application area undertaken by Rio Tinto (2010) identified four potential fauna habitats within the application area:

- Mixed hummock grassland on rocky hills and outcrops;
- Mixed *Acacia* shrublands over Spinifex (*Triodia epactia/wiseana*) grassland on stony plains;
- *Melaleuca* and/or *Acacia* shrublands over Spinifex (*Triodia epactia/schinzii*) grasslands on red-sand dunes and plains; and
- Minor flowlines of Pindan Wattle (*Acacia tumida*) over Spinifex (*Triodia epactia*) and *Cenchrus ciliaris* grasslands (Rio Tinto, 2010).

These primary habitats are considered widespread and abundant in the Cape Lambert area and the proposed clearing of 20 hectares within a broader boundary of 33.2 hectares is not likely to significantly impact the biodiversity of fauna indigenous to Western Australia.

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

Methodology

CALM (2002)
Rio Tinto (2010)
GIS Database:
- IBRA WA (regions – subregions)
- 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 is not likely to be at variance to this Principle

A desktop survey of the application area undertaken by Rio Tinto (2010) revealed the potential for 13 fauna species of conservation significance to occur within the application area. Suitable habitat for the following three species has been recorded within the application area;

- Star Finch: Priority 4, *Wildlife Conservation Act 1950*;
- Australian Bustard: Priority 4, *Wildlife Conservation Act 1950*; and
- Bush Stonecurlew: Priority 4, *Wildlife Conservation Act 1950*.

While it is possible that the Australian Bustard and the Bush Stonecurlew both utilise the application area occasionally, the small size of the proposal area is not likely to affect the availability of suitable habitat locally or regionally. The Star Finch is found within drainage depression habitat, of which there is a small amount occurring within the application area. Given the widespread distribution and mobile nature of the Star Finch, the proposed clearing is not likely to affect the availability of suitable habitat locally or regionally.

A desktop survey of the application area was undertaken by Rio Tinto (2010). This survey revealed the potential for the following four habitat types to occur within the application area:

- Mixed hummock grassland on rocky hills and outcrops;
- Mixed *Acacia* shrublands over Spinifex (*Triodia epactia/wiseana*) grassland on stony plains;
- *Melaleuca* and/or *Acacia* shrublands over Spinifex (*Triodia epactia/schinzii*) grasslands on red-sand dunes and plains; and
- Minor flowlines of Pindan Wattle (*Acacia tumida*) over Spinifex (*Triodia epactia*) and *Cenchrus ciliaris* grasslands (Rio Tinto, 2010).

No significant fauna habitats such as caves, waterholes, significant creek lines, gorges, large tree hollows or termite mounds were observed within the survey area (Rio Tinto, 2010).

Shepherd (2009) reports that 99.94% of Beard vegetation association 157 remains within the Pilbara Bioregion. It is therefore considered unlikely that the proposed clearing will have a significant impact on these fauna habitats locally or regionally.

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

Methodology

RioTinto (2010)
Shepherd (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) within the application area (GIS Database).

No DRF taxa were recorded during a vegetation survey of the application area conducted in October 2010 by Rio Tinto (2010).

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

Methodology

Rio Tinto (2010)
GIS Database:
- Threatened and Priority Flora

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

Comments

Proposal is not likely to be at variance to this Principle

According to the available GIS Databases there are no known records of Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest known TEC is located approximately 160 kilometres south of the application area (GIS Database). At this distance, there is little likelihood of any impact to the TEC as a result of the proposed clearing.

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

Methodology

GIS Database:
- Threatened Ecological Sites Buffered

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

Comments

Proposal is not at variance to this Principle

The application area is located within the Pilbara bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Shepherd (2009) reports that approximately 99.89% of the pre-European vegetation remains in the Pilbara bioregion.

The vegetation in the application area is broadly mapped as Beard vegetation association:

157: Hummock grasslands, grass steppe; hard spinifex, *Triodia wiseana* (GIS Database; Shepherd, 2009).

According to Shepherd (2009) approximately 99.94% of this Beard association remains within the Pilbara bioregion (see table on next page).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Pilbara	17,804,193	17,785,001	~99.89	Least Concern	~6.32
Beard vegetation associations - State					
157	502,729	501,514	~99.76	Least Concern	~17.95
Beard vegetation associations - Bioregion					
157	198,634	198,519	~99.94	Least Concern	~5.69

* Shepherd (2009)
** Department of Natural Resources and Environment (2002)

The vegetation within the application area is not considered to be a remnant of native vegetation in an area that has been extensively cleared.

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

Methodology

Department of Natural Resources and Environment (2002)
Shepherd (2009)
GIS Database:
- IBRA WA (regions - subregions)
- Pre-European Vegetation

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

Comments

Proposal is not likely to be at variance to this Principle

According to available GIS Databases, there are no permanent wetlands or watercourses within the application area, however there are several minor ephemeral watercourses within the application area (GIS Database).

Based on vegetation mapping conducted by Rio Tinto (2010) one of the five vegetation associations found within the application area is associated with drainage areas:

AtuAstTe: *Acacia tumida* var. *pilbarensis* tall open scrub over *Acacia stellaticeps* low shrubland over *Triodia epactia* hummock grassland (Rio Tinto, 2010).

This vegetation community is common throughout the Cape Lambert area. Only a small amount of this vegetation association occurs within the application area. It is considered unlikely that the proposed clearing of 20 hectares of native vegetation will significantly impact on the conservation of vegetation growing in association with these watercourses.

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

Methodology

Rio Tinto (2010)
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 has been surveyed by the Department of Agriculture and Food (Payne and Tille, 1992). The application area is comprised of the following land systems:

- Cheerawarra land system- sandy coastal plains and saline scalds, soft Spinifex and buffel grass grasslands. This land system is highly susceptible to wind erosion if vegetation cover is depleted;
- Ruth land system- rocky hills and ridges with hard Spinifex (occasionally soft Spinifex) grasslands. This land system has very low erosion hazard.

The application area intercepts one land system that is highly susceptible to erosion if the vegetative cover is removed. There is a risk of wind and/or water erosion occurring should these areas remain exposed. Potential erosion impacts as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

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

Methodology Payne and Tille (1992)
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 known conservation reserve on the mainland is a miscellaneous reserve located approximately 29 kilometres south-west of the application area (GIS Database). At this distance the proposed clearing is not likely to impact on the environmental values of this conservation area.

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 the 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 1,000-3,000 milligrams/Litre Total Dissolved Solids (GIS Database). Given the size of the area proposed to be cleared (20 hectares) compared to the size of the Pilbara Groundwater Province (5,557,665 hectares) (GIS Database), the proposed clearing is not likely to cause salinity levels within the application area to alter significantly.

The application area is located in a semi-desert-tropical region (CALM, 2002). The average rainfall is approximately 310 millimetres/year and the average evaporation rate is approximately 3,400 millimetres/year (BoM, 2011; GIS Database). There are no permanent watercourses or drainage channels located within the application area (GIS Database). Given this, the proposed clearing is unlikely to impact on the quality of surface water within the application area.

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

Methodology BoM (2011)
CALM (2002)
GIS Database:
- Evaporation Isopleths
- Groundwater Provinces
- Grooundwater Salinity, Statewide
- Hygrography, linear
- Public Drinking Water Source Area (PDWSA)

(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 an average annual rainfall of

approximately 310 millimetres recorded from the nearest weather station at Roebourne approximately 12 kilometres south of the application area (BoM, 2011). Rainfall is usually experienced during summer months and can be either cyclonic or thunderstorm events. It is likely that during times of intense rainfall there may be some localised flooding in adjacent areas. Local flooding occurs seasonally within the Pilbara region as a result of cyclonic activity and sporadic thunderstorm events (CALM, 2002). The proposed clearing of 20 hectares within the larger boundary of 33.2 hectares is not likely to significantly alter the intensity of flooding within the application area and surrounding areas.

The application area is located within the Coastal Catchment Area (GIS Database). However, the size of the area to be cleared (20 hectares) compared to the size of the Coastal Catchment area (744,302 hectare) is not likely to increase the potential for flooding within the application area, local area or within the catchment area (GIS Database).

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

Methodology BoM (2011)
CALM (2002)
GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There are two Native Title Claims (WC99/14 and WC08/2) over the area under application (GIS Database). These claims have been registered with the National Native Title Tribunal on behalf of the claimant group. However, the 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 is one registered Aboriginal Site of Significance within the application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment and Conservation and the Department of Water, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

Clearing permit CPS 4138/1 was granted by the Department of Mines and Petroleum on 10 February 2011 and was valid from 5 March 2011 to 9 December 2012. The clearing permit authorised the clearing of 16 hectares of native vegetation. An application to amend the permit to clear 17 hectares within a boundary of 29.9 hectares was granted by the Department of Mines and Petroleum on 15 September 2011. An application to amend clearing permit CPS 4138/2 was received by the Department of Mines and Petroleum on 5 October 2011. The application requested the permit boundary be increased by 3.3 hectares to 33.2 hectares, and the area permitted to be cleared increased by 3 hectares to 20 hectares. It is considered unlikely that the proposed increase in the permit boundary and area permitted to clear will result in any significant environmental impacts.

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

4. References

BoM (2011) BOM Website - Climate Averages by Number, Averages for ROEBOURNE. www.bom.gov.au/climate/averages/tables/cw_007151.shtml (Accessed 25 January 2011).

CALM (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.

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

Payne, A.L. and Tille, P.J. (1992) An Inventory and Condition Survey of the Roebourne Plains and Surrounds, Western Australia, Department of Agriculture, Western Australia.

Rio Tinto (2010) Botanical Survey of the 33kV power Line Site Access Road at Cape Lambert. Native Vegetation Clearing Permit Supporting Report prepared by Rio TInto Iron Ore. October, 2010.

Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

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.