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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3601/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Robe River Ltd**

1.3. Property details

Property: *Iron Ore (Cleveland-Cliffs) Agreement Act 1964*, Mineral Lease 248SA (AML 70/248)
Local Government Area: Shire of Ashburton
Colloquial name: Mesa A Transport Corridor Cattle Underpass

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.5		Mechanical Removal	Flood Prevention

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 and are useful to look at vegetation extent in a regional context. The following Beard Vegetation Association is located within the application area (GIS Database):

605: Hummock grasslands, shrub steppe; *Acacia pachycarpa* & waterwood over soft spinifex.

A flora and vegetation survey was undertaken over the application area by Biota Environmental Sciences between July and September 2005. The following vegetation community was identified within the application area (Biota Environmental Sciences, 2006a):

<u>*Vegetation of minor creeklines and flowlines*</u>

CcAciAaAbTwTe: *Corymbia candida* low open woodland over *Acacia citrinoviridis* tall open shrubland over *Acacia ancistrocarpa, Acacia bivenosa* open shrubland over *Triodia wiseana, Triodia epactia* hummock grassland.

Clearing Description
Robe River has applied to clear up to 0.5 hectares within an application area of approximately 1.26 hectares (GIS Database). The application area is located on the Mesa A Rail line approximately 25 kilometres south-west of Pannawonica (GIS Database).

The purpose of the application is to clear the high point in an ephemeral creek. The high point in the creek was probably caused by the floods in February 2009 and caused the pooling of water at a cattle underpass 300 metres to the north (Rio Tinto, 2010). This pooling of water poses a risk to the underpass in the long term (Rio Tinto, 2010). Clearing will be by mechanical means.

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

Comment
The vegetation condition was assessed by botanists from Biota Environmental Sciences. The vegetation condition was described using a scale based on Trudgen (1988) and has been converted to the corresponding condition from the Keighery (1994) scale.

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 at variance to this Principle
The application area occurs within the Hamersley (PIL3) Interim Biogeographic Regionalisation of Australia (IBRA) subregion (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).

A flora and vegetation survey undertaken of the Mesa A transport corridor identified one vegetation community within the application area (Biota Environmental Sciences, 2006a). The larger survey recorded a total of 72 different vegetation communities (Biota Environmental Sciences, 2006a).

A total of 437 taxa of native flora were recorded during the larger survey of the Mesa A transport corridor, Warramboo deposit and Yarraloola borefield (Biota Environmental Sciences, 2006a). This is considered to be relatively more species rich than other areas previously surveyed in the locality (Biota Environmental Sciences, 2006a). Whilst a much smaller number of species will be present within the application area it is still representative of an area of high floral diversity. One species of Priority Flora was recorded from five locations within the application area (Rio Tinto, 2010). There has also been several weed species recorded near and within the application area (Rio Tinto, 2010).

The fauna survey of the Mesa A transport corridor and Warramboo also recorded a high richness of fauna species, with 3 frogs, 64 reptiles, 94 birds and 20 mammals being recorded (Biota Environmental Sciences, 2006b). There was also several fish and invertebrate species recorded (Biota Environmental Sciences, 2006b). It would be expected that the application area would exhibit a proportionally high richness of fauna species.

The vegetation community of the application area has been identified as being of high conservation significance due to it occurring on significant local drainage features and its potential to support Priority Flora and short range endemic invertebrates (Biota Environmental Sciences, 2006a; 2006b).

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

Methodology

Biota Environmental Sciences (2006a)
Biota Environmental Sciences (2006b)
CALM (2002)
Rio Tinto (2010)
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 may be at variance to this Principle

The fauna habitat of the application area was assessed by Biota Environmental Sciences during 2005 as part of a larger survey of the Mesa A transport corridor and Warramboo.

The following seven fauna species of conservation significance were recorded during the larger fauna survey (Biota Environmental Sciences, 2006b):

1. Northern Quoll (*Dasyurus hallucatus*) - Schedule 1, Endangered;
2. Ghost Bat (*Macroderma gigas*) - Priority 4;
3. Western Pebble-mound Mouse (*Pseudomys chapmani*) - Priority 4;
4. Star Finch (western) (*Neochmia ruficauda subclarescens*) - Priority 4;
5. Australian Bustard (*Ardeotis australis*) - Priority 4;
6. Bush Stone-curlew (*Burhinus grallarius*) - Priority 4; and
7. *Notoscincus butleri* - Priority 4.

The proposed clearing is not likely to significantly impact habitat for these species, however, it has been identified as being fauna habitat of conservation significance. Vegetation and soils of creeklines through stony plains may support short range endemic invertebrate taxa (Biota Environmental Sciences, 2006b). Several records of land snails were found within 10 kilometres of the application area during the fauna survey (Biota Environmental Sciences, 2006b). Therefore, it would not be unexpected for short range endemics (SRE's) to utilise the application area. Given that the proposed clearing is relatively small (0.5 hectares), the impacts on SRE's are expected to be minimal.

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

Methodology

Biota Environmental Sciences (2006b)

(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 databases, there are no records of Declared Rare Flora (DRF) within the application area (GIS Database). Biota Environmental Sciences conducted a flora survey including the application area between July and September 2005. No DRF was recorded during the survey (Biota Environmental Sciences, 2006a).

One species of Priority Flora was recorded within the application area:

- *Phyllanthus aridus* (Priority 3)

This species was recorded within the application area from five locations with an estimated total of 140 plants (Rio Tinto, 2010). Thirteen other populations were recorded during the survey, all within the creekline the

application area is part of (Biota Environmental Sciences, 2006a). The total population of *Phyllanthus aridus* recorded during the survey was estimated at over 585 individuals (Biota Environmental Sciences, 2006a). This species has been recorded from the Pilbara through to the Kimberley (Western Australian Herbarium, 2010). The potential removal of 140 individuals and 0.5 hectares of habitat is not likely to have a significant impact on this species.

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

Methodology Biota Environmental Sciences (2006a)
Rio Tinto (2010)
Western Australian Herbarium (2010)
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 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 (Biota Environmental Sciences, 2006a).

The application area falls within the buffer zone of the Priority Ecological Community (PEC) 'Mesa G' (GIS Database). As the application area is located within a creekline and is not associated with a Mesa, the proposed clearing is not likely to have an impact on this PEC.

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

Methodology Biota Environmental Sciences (2006a)
GIS Database
- Threatened Ecological Sites
- Threatened Ecological Sites Buffered

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

Comments

Proposal is not at variance to this Principle

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

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

605: Hummock grasslands, shrub steppe; *Acacia pachycarpa* & waterwood over soft spinifex.

According to Shepherd (2007) approximately 100% of this Beard Vegetation Association remains at both a state and bioregional level. Therefore the area proposed to be cleared does not represent a significant remnant of native vegetation within an area that has been extensively cleared.

While a small percentage of vegetation types within the Pilbara bioregion are protected within conservation reserves, the bioregion remains largely uncleared. As a result the conservation of vegetation associations within the bioregion is not likely to be impacted by this proposal.

	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					
605	114,116	114,116	~100	Least Concern	0.2 (0.2)
Beard veg assoc. – Bioregion					
605	114,116	114,116	~100	Least Concern	0.2 (0.2)

* 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
- IBRA WA (Regions – Sub Regions)
- Pre-European Vegetation

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

Comments

Proposal may be at variance to this Principle

According to aerial imagery the application area is within an ephemeral watercourse (GIS Database). The vegetation survey has identified the vegetation community within the application area as being 'vegetation of minor creeklines and flowlines' (Biota Environmental Sciences, 2006a).

This vegetation community was noted as being a significant local drainage feature (Biota Environmental Sciences, 2006a). However, it was recorded at several other locations along the Mesa A transport corridor, suggesting that it is not a restricted community (Biota Environmental Sciences, 2006a). Whilst this watercourse is a significant local drainage feature, the clearing of 0.5 hectares to prevent localised flooding is not likely to have a significant impact on this vegetation community.

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

Methodology
Biota Environmental Sciences (2006a)
GIS Database
- Pannawonica 1.4m Orthomosaic – Landgate 2000

(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

According to available databases, the application area is comprised of the Newman, Boolgeeda and Urandy land systems (GIS Database). All these land systems are largely erosion resistant (Van Vreeswyk et al., 2004). However, the following landforms which are present within the application area have been assessed as being vulnerable to soil erosion if disturbed (DAFWA, 2006):

Boolgeeda: Stony slopes and plain; and
Urandy: Alluvial plain and drainage zone.

The clearing within the application area is within a non-perennial watercourse, the disturbance of which may result in a localised increase in erosion. This impact may be minimised by the implementation of conditions restricting clearing during the wet season and rehabilitating areas 2 months after clearing.

At a broad scale the surface soil pH in the application ranges from 5.5 to 6.5 and there is no known occurrence of acid sulphate soils (CSIRO, 2009). The average annual evaporation rate is over 8 times the average annual rainfall, so it is unlikely the proposed clearing will result in increased groundwater recharge causing raised saline water tables (BoM, 2010; GIS Database).

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

Methodology
BoM (2010)
CSIRO (2009)
DAFWA (2006)
Van Vreeswyk et al. (2004)
GIS Database
- Evaporation Isopleths
- 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 DEC managed lands (GIS Database). The nearest conservation reserve is the Cane River Conservation Park, located approximately 37 kilometres south-west of the application area (GIS Database). Based on the distance between the proposed clearing and the nearest conservation area, the project is not likely to impact the environmental values of any 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 may be at variance to this Principle

According to available databases, the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). There are no permanent waterbodies or watercourses within the application area, however, the application area lies within a non-perennial watercourse (GIS Database). This watercourse only flows after during seasonal flood events or substantial localised falls (Rio Tinto, 2010).

The average annual rainfall for the application area is 408.2 millimetres and the average annual evaporation rate is 3,400 millimetres (BoM, 2010; GIS Database). Therefore, during normal rainfall events surface water within the application area is likely to evaporate quickly. However, because soil within the creek is being disturbed it is likely that following the first major rainfall event that surface water will have a higher level of sediments. Following flood events are likely to have lower levels of sediments. Sedimentation may be minimised by the implementation of conditions restricting clearing during the wet season and rehabilitating areas 2 months after clearing.

The groundwater salinity within the application area is between 500 – 1,000 milligrams per litre of Total Dissolved Solids (TDS) (GIS Database). This is considered to be potable water. Given the small scale of the proposed clearing (0.5 hectares), it is not likely to cause salinity levels within the application area to alter (GIS Database).

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

Methodology

BoM (2010)
Rio Tinto (2010)
GIS Database
- Evaporation Isopleths
- Groundwater Salinity, Statewide
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSA's)

(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

With an average annual rainfall of 408.2 millimetres and an average annual evaporation rate of 3,400 millimetres there is likely to be little surface flow during normal seasonal rains (BoM, 2010; GIS Database). Given the likelihood of little surface flow, the proposed clearing of 0.5 hectares is not likely to cause or increase the incidence of flooding. Furthermore, the proposed clearing is to remove a high point in a non-perennial watercourse which is likely to result in a decrease in flooding of the local area.

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

Methodology

BoM (2010)
GIS Database
- Evaporation Isopleths

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

Comments

The clearing permit application was advertised on 1 March 2010 by the Department of Mines and Petroleum inviting submissions from the public. There was one submission received stating no objections to the proposal.

There is one native title claim over the application area under application; WC99/012 (GIS Database). This claim has been registered with the Native Title Tribunal on behalf of the claimant group. 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 databases 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.

Methodology GIS Database
- Native Title Claims
- Sites of Aboriginal Significance

4. Assessor's comments

Comment

The proposal has been assessed against the Clearing Principles, and the proposed clearing is at variance to Principle (a), may be at variance to Principles (b), (f), (g), and (i), is not likely to be at variance to Principles (c), (d), (h) 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, time of clearing, rehabilitation, record keeping and permit reporting.

5. References

Biota Environmental Sciences (2006a) A Vegetation and Flora Survey of the Proposed Mesa A Transport Corridor, Warramboo Deposit and Yarraloola Borefield. Unpublished report for Robe River Iron Associates.

Biota Environmental Sciences (2006b) Fauna Habitats and Fauna Assemblage of the Mesa A Transport Corridor and Warramboo. Unpublished report for Robe River Iron Associates.

Bureau of Meteorology (2010) BOM Website - Climate Averages by Number, Averages for Pannawonica. Available online at: http://www.bom.gov.au/climate/averages/tables/cw_005069.shtml accessed on 7 April 2010.

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 9 April 2010.

DAFWA (2006) Land degradation assessment report for clearing permit application CPS 1250/1. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia, dated 6 November 2006.

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.

Rio Tinto (2010) Supporting information for clearing permit application CPS 3601/1.

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.

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.

Western Australian Herbarium (2010) Florabase - The Western Australian Flora. Department of Environment and Conservation. Available online at http://florabase.dec.wa.gov.au/ Accessed on 7 April 2010.

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.