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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3759/1
Permit type: Purpose Permit

1.2. Proponent details

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

1.3. Property details

Property: *Iron Ore (Cleveland Cliffs) Agreement Act 1964*, Mineral Lease 248SA (AML70/248)
Local Government Area: Shire of Ashburton
Colloquial name: Mesa F Exploration

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
10		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

The vegetation of the application area is broadly mapped as Beard Vegetation Association 583: Hummock grasslands, sparse shrub steppe; kanji and *Acacia bivenosa* over hard Spinifex *Triodia basedowii* and *T. wiseana* (GIS Database; Shepherd, 2007).

A flora survey conducted over the application area in October 2009 identified eight vegetation types (Rio Tinto, 2010).

Stony Slopes
1. *Acacia arida*, *Acacia atkinsiana* open shrub over *Triodia wiseana* hummock grassland.

Flats
2. *Acacia xiphophylla* open heath over *Senna artemisioides* low scattered shrubs over *Triodia pungens* very open hummock grassland over *Iseilema membranaceum* scattered bunch grass over *Sclerolaena diacantha* scattered herbs.

3. *Acacia arida*, *Acacia atkinsiana* open shrubland over *Triodia wiseana* hummock grassland.

Mesa Crests
4. *Eucalyptus leucophloia* low open woodland over *Acacia atkinsiana* high shrubland over *Acacia arida* shrubland over *Triodia wiseana* hummock grassland.

5. *Eucalyptus leucophloia* low woodland over *Acacia atkinsiana*, *Acacia ancistrocarpa* shrubland over *Triodia wiseana* hummock grassland.

Flow Lines
6. *Grevillea wickhamii*, *Acacia tumida* open scrub over Gossypium robinsonii open shrubland over *Tephrosia uniovulata*, *Keraudrenia velutina* low shrubland over *Triodia wiseana* very open hummock grassland.

7. *Corymbia flavescens* low woodland over *Acacia atkinsiana*, *Acacia ancistrocarpa* high shrubland over *Acacia bivenosa* shrubland over *Senna oligophylla* low open shrubland over *Triodia pungens*, *Triodia wiseana* hummock grassland over *Ptilotus appendiculata* very open herbs.

Clearing Description

Robe River Mining Co Pty Ltd has applied to clear 10 hectares within a larger area totalling approximately 122.4 hectares for the purpose of exploration drilling.

Robe intends to clear a total of 80 drill pads of 20 by 20 metres each, approximately 7km of access tracks (approx. 4 metres wide). Clearing will be done via bulldozer with the blade down. Vegetation will be stockpiled and used for rehabilitation.

The application area is located approximately 40km south-west of Pannawonica.

Vegetation Condition

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

Comment

The vegetation description was derived from the botanical survey (Rio Tinto, 2008) submitted by Robe River Mining Co Pty Ltd.

8. *Corymbia flavescens* low open woodland over *Acacia inaequilatera*, *Acacia ancistrocarpa* high shrubland over *Acacia atkinsiana* open shrubland over *Indigofera boviperda* low open shrubland over *Triodia pungens* closed hummock grassland.

3. Assessment of application against clearing principles

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

Comments

Proposal is not likely to be at variance to this Principle

The application area occurs within the Hamersley (PIL3) sub-region of the Pilbara region of the Interim Biogeographic Regionalisation of Australia (IBRA) (GIS Database). The Hamersley sub-region is characterised by 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).

Rio Tinto (2010) conducted a flora and vegetation survey of the application area in October 2009. The survey recorded a total of 98 flora species from 52 genera and 30 families (Rio Tinto, 2010). The dominant families and genera found in the application area included *Mimosaceae* (13), *Acacia* (13) and *Malvaceae* (9) (Rio Tinto, 2010). These results are considered to be within the expected range of floristic diversity for the region (Rio Tinto, 2010).

Rio Tinto (2010) reported that the vegetation of the application area was generally in very good condition, with some previous disturbance from historical exploration tracks. Although the application area is located within the Yarraloola Pastoral Lease (GIS Database), no obvious signs of grazing were recorded (Rio Tinto, 2010).

One alien weed species, Spiked Malvastrum (*Malvastrum americanum*) was 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. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The vegetation associations recorded in the application area are well represented in the region (GIS Database; Rio Tinto, 2010), and the vegetation proposed to be cleared is not likely to be of higher biodiversity than the surrounding area.

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 - Sub Regions)
- Pastoral Leases
- Pre-European Vegetation

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

Comments

Proposal is not likely to be at variance to this Principle

Rio Tinto undertook a desktop review of databases held by Department of Environment and Conservation, Department of Environment, Water, Heritage and the Arts, WA Museum and Rio Tinto in October 2009, and identified 11 conservation significant fauna species that may be present in the application area. These include: Lakeland Downs Mouse (*Leggadina lakedownensis*), Western Pebble-mound Mouse (*Pseudomys chapmani*), Bush Stonecurlew (*Burhinus grallarius*), Australian Bustard (*Ardeotis australis*), Northern Quoll (Dasyurus hallucatus), Night Parrot (*Pezoporus occidentalis*), Mulgara (*Dasycercus cristicauda*), Black-flanked Rock Wallaby (*Petrogale lateralis lateralis*), Pilbara Orange Leaf-nosed Bat (*Rhinonicteris aurantius*), Olive Python (*Liasis olivaceus barroni*) and the Blind Snake (*Ramphotyphlops ganei*). Of these, the Northern Quoll and Western Pebble-mound Mouse are considered most likely to occur within the application area.

The Northern Quoll (Schedule 1 - Fauna that is rare or is likely to become extinct, Wildlife Conservation (Specially Protected Fauna) Notice 2010) may use the habitat in the application area for foraging, however the application area is unlikely to contain suitable den habitat as it is devoid of rock crevices, caves or log and tree hollows (Rio Tinto, 2010).

During a flora and vegetation survey of the application area conducted in October 2009, two Western Pebble-mound Mouse (Priority 4 Fauna Species) mounds were recorded (Rio Tinto, 2010). The Western Pebble-mound Mouse is widely represented in this region and occurs throughout the central and eastern Pilbara (CALM, 2002). Due to the wide spread distribution of this species and the extent of native vegetation that is

available for this species in the bioregion, it is considered that the habitat within the application area is not significant for this species and its conservation status is unlikely to be affected by the proposed clearing.

The relatively small scale low impact of the proposed clearing for mineral exploration is considered to represent a low risk of significant impact to conservation significant fauna.

The fauna habitats within the application area are dominated by stony slopes, flats, minor drainage lines and mesa crests. The habitat types within the application area are well represented in the surrounding area (GIS Database; Rio Tinto, 2010). No restricted fauna habitat features, such as caves, waterholes, significant creek lines, wetlands or gorges, were observed within the application area (Rio Tinto, 2010).

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:
- Pre-European Vegetation

(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 populations of Declared Rare Flora (DRF) or Priority flora species occurring within the application area (GIS Database). The nearest recorded population of Declared Rare or Priority Flora (*Abutilon uncinatum*)(Priority 1) is located approximately 27km north-west of the application area (GIS Database).

Rio Tinto (2010) conducted a flora survey of the application area in October 2009. No DRF, Priority Flora or other species of conservation significance were recorded in the survey (Rio Tinto, 2010).

Vegetation within the application area is typical of the surrounding area and the greater Pilbara region (GIS Database; Rio Tinto, 2010). The vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species for rare flora.

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

Methodology
Rio Tinto (2010).
GIS Database:
- Declared Rare and Priority Flora Listing
- Pre-European Vegetation

(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 (DEWHA, 2010; GIS Database), no Threatened Ecological Communities (TEC's) occur within the application area.

The application area occurs within the buffer zone for a Priority Ecological Community (MesaF), a subterranean invertebrate community consisting of troglobitic fauna (DEC, 2009). It is unlikely that the proposed clearing of 10ha of surface vegetation will affect these priority ecological communities.

A vegetation survey conducted in October 2009 did not locate any TEC's within the application area.

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

Methodology
DEC (2009).
DEWHA (2010).
Rio Tinto (2010).
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 is located within the Pilbara Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Shepherd (2007) report that approximately 99.95% of the pre-European vegetation still exists in the Pilbara Bioregion. The vegetation in the application areas is broadly mapped as

Beard Vegetation Association 583: Hummock grasslands, sparse shrub steppe; kanji and *Acacia bivenosa* over hard Spinifex *Triodia basedowii* and *T. wiseana* (GIS Database; Shepherd, 2007). According to Shepherd (2007) there is approximately 100% of this vegetation type remaining (see table below).

Two clearing permits adjacent to the application area have been granted, totalling 43.1ha of vegetation approved for clearing for exploration. On a broader scale the Pilbara region has not been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Pilbara	17,804,188	17,794,647	99.95	Least Concern	6
Beard vegetation associations - State					
583	243,112	243,112	100	Least Concern	35
Beard vegetation associations - Bioregion					
583	243,112	243,112	100	Least Concern	35

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

Therefore, the application area is not part of 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 (2007).
GIS Database:
- Interim Biogeographic Regionalisation of Australia
- Pre-European Vegetation

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

Comments **Proposal may be at variance to this Principle**
According to available databases, there are no watercourses or wetlands within the application area (GIS, Databases).

The vegetation survey describes a number of minor drainage lines within the application area (Rio Tinto, 2010), channelling surface water flows into the Robe River. According to the Bureau of Meteorology, the application area receives a low average annual rainfall of approximately 407.1 mm per year, with most rain events occurring between December - March (BoM, 2010). These rainfall events are most likely to be a result of cyclonic or thunderstorm activity and are likely to be brief but heavy. As a result, the drainage lines in the application area would only experience water flow during these times of intense rainfall and would remain dry for the majority of the year.

Based on the above, the proposed clearing may be at variance to this Principle. However, the proposed clearing is unlikely to have any significant impact on any watercourse or wetland.

Methodology BoM (2010).
Rio Tinto (2010).
GIS Database:
- Hydrography, Linear
- Hydrography, Linear (Heirarchy)
- Yarraloola 1.4M Orthomosaic

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments **Proposal is not likely to be at variance to this Principle**
The application area falls within the Robe Land System (GIS Database). The Robe Land System is described by Van Vreeswyk et. al. (2004) as low limonite mesas and buttes supporting soft Spinifex (and occasional hard

Spinifex) grasslands. Van Vreeswyk et. al. (2004) describes this system as not generally being susceptible to vegetation degradation and erosion. Rio Tinto (2010) report that the land system is able to withstand massive rainfall events on an annual basis without any appreciable increase in land degradation or erosion (Rio Tinto, 2010).

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

Methodology Rio Tinto (2010).
Van Vreeswyk et al (2004).
GIS Database:
- Rangeland Land System Mapping

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments **Proposal is not likely to be at variance to this Principle**
According to available databases, the nearest conservation estate is located approximately 25km south-west of the application area (Cane River Conservation Park) (GIS Database). At this remote distance, the vegetation within the application area would not contribute to the environmental values of the reserve, nor would it provide a buffer or ecological linkage to the Cane River Conservation Park.

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

Methodology Shepherd (2007).
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**
The application area does not occur within a Public Drinking Water Source Area (GIS Database).

The application area occurs within the Pilbara Groundwater Areas as proclaimed under the *Rights in Water Irrigation Act, 1914*. Any groundwater extraction within the proclaimed area is subject to licensing by the Department of Water (DoW, 2009). The removal of 10 hectares of native vegetation is not likely to significantly impact on the level or quality of groundwater in the area.

There are no watercourses or wetlands within the application area (GIS Database). Many ephemeral drainage channels occur within the application area, which is part of the Robe River catchment area. The drainage lines are only likely to flow following periods of intense rainfall associated with cyclonic or thunderstorm activity. The proposed clearing is unlikely to significantly impact on the quality of surface water.

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

Methodology DoW (2009).
GIS Database:
- Hydrography, Linear
- Hydrography, Linear (Heirarchy)
- Public Drinking Water Source Area

(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 is characterised by an arid, tropical climate with a wet summer season and a dry season (BoM, 2010). Most rainfall is received during the wet season, but falls can be variable (BoM, 2010). Rain can either be sporadic (local thunderstorms), or heavy and intense (cyclonic events). It is likely that during times of intense rainfall there may be some localised flooding in adjacent areas. However, the small area to be cleared (10ha) in relation to the size of the Coastal catchment area (423,128.67ha) (GIS Database) is not likely to lead to an increase in flood height or duration within the application area.

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

Methodology BoM (2010).
GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There is one native title claim over the area under application; WC99_012. 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 (ie. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal sites of significance within the application area (GIS Database). There are several sites within close proximity. It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Sites of Aboriginal 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.

The clearing permit application was advertised on 31 May 2010 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received raising no objections in relation to the application.

Methodology

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

4. Assessor's comments

Comment

This application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the *Environmental Protection Act 1986*, and the proposed clearing may be at variance to Principle (f), is not likely to be at variance to Principles (a), (b), (c), (d), (g), (h), (i) and (j) and is not at variance to Principles (e).

5. References

BoM (2010) Climate Averages - Pannawonica. http://reg.bom.gov.au/climate/averages/tables/cw_005069.shtml Accessed 29/6/10. Bureau of Meterology.

CALM (2002) A Biodiversity Audit of Western's 53 Biogeographical Sub-regions. Department of Environment and Conservation.

DEC (2009) Priority Ecological Communities of Western Australia. The Department of Environment and Conservation.

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.

DEWHA (2010) EPBC Act Protected Matters Search Tool. http://www.environment.gov.au/erin/ert/epbc/index.html. Accessed 29/6/10. Department of Environment, Water, Heritage and the Arts.

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) Botanical Survey for Evaluation Drilling at Mesa F & Supporting Document to a Native Vegetation Clearing Permit Application. Unpublished report prepared by Rio Tinto.

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.

Van Vreeswyk A.M.E., Payne A.L., Leighton K.A. & Hennig P. (2004) Technical Bulletin No. 92: An inventory and condition survey of the Pilbara region, Western Australia. Department of Agriculture, Western Australia.

6. Glossary

Acronyms:

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

Definitions:

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

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

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

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

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

P1 **Priority One: Taxa with few, poorly known populations on threatened lands**: Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

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

P3 **Priority Three: Taxa with several, poorly known populations, some on conservation lands**: Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P4 **Priority Four: Taxa in need of monitoring**: Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.

P5 **Priority Five: Taxa in need of monitoring**: Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

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

EX **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.

EX(W) **Extinct in the wild:** A native species which:
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.

CR **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.

EN **Endangered:** A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.

VU **Vulnerable:** A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

CD **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.