Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3117/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Hamersley Iron Pty Ltd**

1.3. Property details

Property: Temporary Reserve 70/4192 pursuant to *Iron Ore (Rhodes Ridge) Agreement Authorisation Act 1972*
Local Government Area: Shire Of East Pilbara
Colloquial name: Rhodes Ridge Camp

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
20		Mechanical Removal	Camp Expansion

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Vegetation within the application area has been mapped at a 1:250,000 scale as Beard Vegetation Associations: 18: Low woodland; mulga (*Acacia aneura*) 82: Hummock grasslands, low tree steppe; snappygum over *Triodia wiseana* GHD undertook a vegetation survey of the application area in April 2008. The following six vegetation units were identified within the application area (GHD, 2008): 1. Mosaic of spinifex with *Acacias* and spinifex with *Eucalyptus*; and 2. Mixed woodlands or shrublands: *Acacia* shrubland and occasional *Eucalyptus* over mixed grassland (post-burn); and 3. Mixed woodlands or shrublands: Degraded sandplain – *Acacia* shrubland over mixed grassland (post-burn); and 4. *Acacia aneura* woodlands or shrublands; and reserves, State forest, vacant 5. Heavily disturbed; and 6. Minor flowlines.	Hamersley Iron has applied to clear up to 20 hectares within an application area of 34.3 hectares for the purpose of a camp expansion. The proposal includes lay down areas, changes to intersections and modification of the refuelling area (GHD, 2008). Clearing will be by mechanical means.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994). to Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).	The vegetation condition rating is based on information reported by GHD (2008). The application area has a number of weeds present, and there are areas disturbed by existing roads and infrastructure (GHD, 2008).

3. Assessment of application against clearing principles

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

Comments

Proposal is not likely to be at variance to this Principle

The application area occurs within the Hamersley (PIL3) Interim Biogeographic Regionalisation of Australia (IBRA) sub-region (GIS Database). At a broad scale vegetation can be described as Mulga low woodland over bunch grasses on fine textured soils in valley floors, and *Eucalyptus leucophloia* over *Triodia brizoides* on

skeletal soils of the ranges (CALM, 2002). The vegetation within the application area has been mapped as Beard vegetation associations 18 and 82 which are common throughout the bioregion, with approximately 100% of the Pre-European extent remaining (GIS Database; Shepherd et al., 2001).

A flora and vegetation survey was undertaken within the application area by GHD in April 2008. This survey identified six vegetation types within the application area (GHD, 2008). These vegetation types ranged from 'excellent' to 'completely degraded' condition (GHD, 2008).

The flora survey of the application area recorded 91 taxa from 27 families (GHD, 2008). The most dominant families were *Poaceae* (23 taxa), *Mimosaceae* (12 taxa) and *Malvaceae* (7 taxa) (GHD, 2008). This is considered to represent a low to moderate level of species diversity (GHD, 2008). There were numerous introduced species within the application area, largely due to the existing grounds and gardens of the camp which contained planted lawns, trees and ornamental species (GHD, 2008). Outside of the gardens there were 8 weed species recorded during the survey including Bipinnate Beggartick (*Bidens bipinnata*), Spiked Malvastrum (*Malvastrum americanum*), Buffel Grass (*Cenchrus ciliaris*), Birdwood Grass (*Cenchrus setiger*), Whorled Pigeon Grass (*Setaria vertcillata*), Purslane (*Portulaca oleracea*), Blackberry Nightshade (*Solanum nigrum*) and Couch (*Cynodon dactylon*) (GHD, 2008). The presence of these introduced weed species lowers the biodiversity value of the area proposed to be cleared. Care must be taken to ensure that the proposed clearing activities do not spread or introduce weed species to non-infested areas. Should a clearing permit be granted, it is recommended that a condition be imposed for the purpose of weed management.

A search of the Western Australian Museums' Faunabase by GHD identified 14 mammals, 4 birds and 34 reptiles recorded within a 20 kilometre radius of the application area (GHD, 2008). A reconnaissance survey of the application area recorded 1 mammal, 10 birds and 3 reptiles (GHD, 2008). This survey did not include any trapping. Given the area has been previously disturbed and has a constant human presence, it is not likely to have higher faunal diversity than other surrounding areas.

Given the vegetation within the application area has been impacted by the existing camp and there is a high number of weeds, it is not expected to have a higher level of biodiversity than vegetation in surrounding areas.

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

Methodology CALM (2002)
GHD (2008)
Shepherd et al (2001)
GIS Database
- Interim Biogeographic Regionalisation of Australia (subregions)
- Pre-European Vegetation

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

Comments

Proposal is not likely to be at variance to this Principle

GHD was commissioned on behalf of Hamersley Iron to undertake a fauna assessment of the application area. This included a desktop survey and field survey that identified habitat types and took opportunistic recordings (GHD, 2008). Five different fauna habitat types have been identified within the application area (GHD, 2008):

- open woodland over hummock (spinifex) grassland on rocky hills and slopes;
- shrubland over mixed grassland on plains;
- mulga woodland on plains;
- minor rocky drainage lines with denser vegetation; and
- mulga woodlands.

These habitat types are common throughout the surrounding areas where they are generally considered to be in better condition than the habitat within the application area (GHD, 2008). There are no habitats recorded that would be specific to the application area (GHD, 2008). There are no natural or semi-permanent water sources within the application area, however, there were a number of artificial water points including a small dam, that provide a water source for fauna (GHD, 2008).

The application area has large areas of disturbance due to the existing roads and infrastructure present. Livestock are known to graze on grasses and disturb the soil surface within the application area (GHD, 2008). There is also a constant human presence in the area which is likely to deter fauna from utilising the application area.

There is the potential for several species of conservation significance to be found within the application area however, given the large amount of disturbance and proximity to human activity the application area is not likely to represent significant habitat for indigenous fauna.

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

Methodology GHD (2008)

(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 known records of Declared Rare Flora (DRF) or Priority Flora species within the application area (GIS Database).

GHD (2008) conducted a search of the Department of Environment and Conservation's (DEC) Rare Flora Database and the Western Australian Herbarium records. This search identified one species; *Lepidium catapycnon* (DRF) as being present within a 10 kilometre radius of the application area. This species has been recorded by previous surveys in the Rhodes Ridge area (Hamersley Iron, 2009). However, its preferred habitat of skeletal soils on hillsides is not present within the application area (GHD, 2008).

A flora survey of the application area was undertaken by botanists from GHD in April 2008. No DRF of Priority Flora species were recorded within the application area (GHD, 2008).

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

Methodology

GHD (2008)
Hamersley Iron (2009)
GIS Database
- Decalred 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 known Threatened Ecological Communities (TEC's) within the application area (GIS Database). There were no vegetation communities described as a TEC recorded during the botanical survey within the application area (GHD, 2008).

The nearest known TEC is located approximately 55 kilometres south-east of the application area (GIS Database). Given the distance to the nearest TEC, the proposed clearing is unlikely to have any impacts on any TEC's.

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

Methodology

GHD (2008)
GIS Database
- Threatened Ecological Communities

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

Comments

Proposal is not at variance to this Principle

The application area falls within the Pilbara Interim Biogeographic Regionalisation for Australia (IBRA) bioregion in which approximately 99.9% of the Pre-European vegetation remains (see table) (GIS Database; Shepherd et al., 2001).

The vegetation of the application area has been mapped as (GIS Database);

- Beard Vegetation Association 18: Low woodland; mulga (*Acacia aneura*); and
- Beard Vegetation Association 82: Hummock grasslands, low tree steppe; snappygum over soft spinifex;

According to Shepherd et al., (2001) approximately 100% of Beard Vegetation Association 82 and 99.9% of Beard Vegetation Association 18 respectively remains at a state level, whilst 100% remains for both at bioregional level Therefore the area proposed to clear does not represent a remnant of native vegetation within an area that has been extensively cleared.

Whilst a small percentage of the 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	17,804,164	17,794,651	~99.9	Least Concern	6.3 (6.3)
Beard veg assoc. – State					
18	19,892,436	19,890,348	~99.9	Least Concern	2.1 (2.1)
82	2,565,929	2,565,929	~100	Least Concern	10.2 (10.2)
Beard veg assoc. – Bioregion					
18	676,561	676,561	~100	Least Concern	16.8 (16.8)
82	2,563,609	2,563,609	~100	Least Concern	10.2 (10.2)

* Shepherd et al. (2001)
** 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 proposal is not at variance to this Principle.

Methodology Department of Natural Resources and Environment (2002)
Shepherd et al. (2001)
GIS Database
- Interim Biogeographic Regionalisation of Australia
- Pre-European Vegetation

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

Comments **Proposal is at variance to this Principle**
According to available databases, the application area contains no watercourses or wetlands (GIS Database).

GHD (2008) have reported one vegetation unit associated with a watercourse as occurring within the application area:

- Minor Flowlines

Given the application area includes vegetation growing in association with a watercourse, the proposal is at variance to this Principle.

This drainage line only flows following heavy rainfall events and is dry for the majority of the year (GHD, 2008). This vegetation unit represents less than 2 hectares of the proposed clearing, and has been noted as grading into '*Acacia* shrubland and occasional *Eucalyptus* over mixed grassland' (GHD, 2008). This vegetation was common throughout the application area and the region (GHD, 2008). The clearing of this vegetation is not likely to have a significant impact on any watercourse within the application area.

Methodology GHD (2008)
GIS Database
- Hydrography, linear

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

Comments **Proposal is not likely to be at variance to this Principle**
According to available databases, the application area is comprised of the Boolgeeda Land System (GIS Database). This Land System is characterised by stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands and mulga shrublands (Van Vreeswyk et al, 2004). The vegetation is

generally not prone to degradation and the system is not susceptible to erosion (Van Vreeswyk et al, 2004).

The surface soil pH of the application area is 5.5 - 6.0 and subsoil pH is 6.0 - 6.5 (CSIRO, 2009). There has been no recorded occurrence of acid sulphate soils with the application area (CSIRO, 2009). The average annual evaporation is over 8 times the average annual rainfall, so it is unlikely the proposed clearing will result in increased groundwater recharge causing raised saline tables (GIS Database). The application area is relatively flat, with no areas of steep gradient that could lead to increased erosion if cleared (GIS Database).

Whilst the Boolgeeda Land System is not susceptible to erosion is has been noted that short term erosion may occur within the application area following the proposed clearing (GHD, 2008). Should a permit be granted the assessing officer recommends that a condition be placed on the permit in relation to staged clearing.

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

Methodology

CSIRO (2009)
GHD (2008)
Van Vreeswyk et al (2004)
GIS Database
- Evaporation Isopleths
- Rainfall, Mean Annual
- Rangeland Land System Mapping
- Topographic Contours, Statewide

(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 area is Karijini National Park located approximately 74 kilometres west of the application area (GIS Database). Based on the distance between the application area and the National Park, the proposed clearing is not likely to impact on the environmental values of any conservation areas.

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

Methodology

GIS Databse
- CALM Managed Lands and Waters

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments

Proposal is not likely to be at variance to this Principle

According to available databases, the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database).

Rainfall in this area is mainly restricted to a wet summer season, where precipitation can be variable. Rain can be either intense falls associated with cyclonic events, or scattered falls associated with local thunderstorms (GHD, 2008). The average annual evaporation rate for the application area is 3400 – 3600 millimetres and the average annual rainfall is 400 millimetres (GIS Database). Therefore, during normal rainfall events surface water in the application area is likely to evaporate quickly. However, substantial rainfall events create surface sheet flow which is likely to have a high level of sediments. During normal rainfall events, the proposed clearing would not likely lead to an increase in sedimentation of watercourses within and outside the application area.

The groundwater within the application area is marginal, between 500 – 1000 milligrams per litre of Total Dissolved Solids (TDS) (GIS Database). This is considered to be potable water. Given the size of the area to be cleared (20 hectares) compared to the size of the Hamersley groundwater province (10,166,832 hectares), the proposed clearing is not likely to cause salinity levels within the application area to alter significantly (GIS Database).

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

Methodology

GHD (2008)
GIS Database
- Evaporation Isopleths
- Groundwater Provinces
- Groundwater Salinity, Statewide
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSA's)
- Rainfall, Mean Annual

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments

Proposal is not likely to be at variance to this Principle

The application area experiences an arid, tropical climate with a wet summer season and a dry winter season (GHD, 2008). Most rainfall is received during the wet season, but falls can be variable (BoM, 2009). Rain can either be sporadic (local thunderstorms) or heavy and intense (cyclonic events). It is likely during times of intense rainfall there may be some localised flooding in adjacent areas. However, during normal rainfall events surface water in the application area is likely to be evaporated quickly. Given the small area to be cleared (20 hectares) in relation to the size of the Fortescue River – Upper catchment area (2,975,192 hectares), the proposed clearing is not likely to lead to an increase in flood height or duration (GIS Database).

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

Methodology

BoM (2009)
GHD (2008)
GIS Database
- Hydrographic Catchments – Catchments

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

Comments

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

There is one native title claim over the area under application; WC99/004 (GIS Database). This claim has been registered with the National Native Title Tribunal. However, the mining tenement has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act, 1993.*

According to available databases, there are no registered Aboriginal Sites of Significance within the application area (GIS Database). It is the proponents' responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

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

Methodology

GIS Database
- Aboriginal Sites of Significance
- Native Title Claims

4. Assessor's comments

Comment

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

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

5. References

Bureau of Meteorology, (2009) BOM Website - Climate Averages by Number, Averages for Newman. Available online at: http://www.bom.gov.au/climate/averages/tables/cw_007151.shtml accessed on 27 May 2009.

Commonwealth Scientific and Industrial Research Organisation (2009) Australian Soil Resource Information System. Available online at: http://www.asris.csiro.au/index_ie.html Accessed on 27 May, 2009.

Department of Conservation and Land Management (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions.

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

GHD (2008) Report for Expansion of Rhodes Ridge Camp Area. Unpublished report for Hamersley Iron Pty Ltd, Western Australia.

Hamersley Iron (2009) Supporting Documentation for Clearing Permit Application 3009/1.

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

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

Van Vreeswyk, A.M.E., Payne, A.L., Hennig, P. and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara

Region, Western Australia. Department of Agriculture, western Australia.

6. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government.
CALM	Department of Conservation and Land Management, Western Australia.
DAFWA	Department of Agriculture and Food, Western Australia.
DA	Department of Agriculture, Western Australia.
DEC	Department of Environment and Conservation
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DoE), Western Australia.
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia.
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.