Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3903/1

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;*
Special Lease for Mining Operations 3116/4623, Document I 123396, Lot 65 on Deposited Plan 241547

Local Government Area: Shire of Roebourne

Colloquial name: Cape Lambert Hydrological Investigations

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.4		Mechanical Removal	Hydrological Investigations

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description
Vegetation within the application area has been mapped at a 1:250,000 scale as the following Beard vegetation association (GIS Database; Shepherd, 2007);

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

Biota Environmental Sciences were commissioned by Pilbara Iron Pty Ltd to undertake an extensive flora and vegetation survey of the Cape Lambert Port B project area which included the majority of the application areas subject to this proposal. Biota Environmental Sciences (2008a) have identified and described the habitat and vegetation types within the application areas as follows:

Flat Coastal Plain

Acacia stellaticeps or *Acacia bivenosa* open shrubland over *Scaevola spinescens* and *Rhagodia eremaea* scattered low shrubs over *Triodia epactia* hummock grassland and **Cenchrus ciliaris* tussock grassland.

Rocky Hills and Outcrops

Rocky hillcrests and upper slope habitats inland from the coast with *Triodia wiseana* and/or *Triodia epactia* hummock grassland.

Disturbed

Areas currently cleared of vegetation, or historically cleared and extensively degraded by weeds.

Clearing Description
Robe River Mining Co Pty Ltd have applied to clear 1.4 hectares of native vegetation at Cape Lambert for the purpose of constructing access tracks and the drilling of monitoring, production and reinjection bores (Rio Tinto, 2010).

Clearing will be undertaken using raised blade techniques where practicable or a scrub rake in level terrain. In the event that previously cleared tracks require maintenance, these tracks may require grading using blade down techniques

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

To

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

Comment
The rating of the vegetation is derived from the flora and vegetation survey of the Cape Lambert Port B development area conducted by Biota Environmental Sciences between 2007-2008 (Biota Environmental Sciences, 2008a).

An analysis of aerial photography shows some of the application areas to be adjacent to areas previously disturbed for purposes including access tracks and laydown areas (GIS Database).

3. Assessment of application against clearing principles

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

Comments

Proposal is not likely to be at variance to this Principle

The application area occurs within the Chichester (PIL1) subregion of the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by plains supporting a shrub steppe of *Acacia inaequilatera* over *Triodia wiseana* hummock grasslands, while *Eucalyptus leucophloia* tree steppes occur on ranges (CALM, 2002).

A multi-seasonal flora and vegetation survey of the Cape Lambert Port B development area was conducted by Biota Environmental Sciences between 2007-2008 (Biota Environmental Sciences, 2008a). These surveys included the majority of the areas under application. The predominant landforms and associated vegetation types within the application areas are Flat Coastal Plains and Rocky Hills and Outcrops, and these considered relatively typical of coastal habitats in the Pilbara region and are not considered locally or regionally significant (Biota Environmental Sciences, 2008a).

There were no Declared Rare Flora or Priority Flora species identified during the flora survey of the Cape Lambert Port B development area, and none of the vegetation types identified within the study area are listed as Threatened Ecological Communities or Priority Ecological Communities (Biota Environmental Sciences, 2008a). According to Biota Environmental Sciences (2008a), the richness of flora species within the Camp Lambert development area is within the range expected for its size when compared with six other study areas on the Pilbara coast. It is considered that the clearing of native vegetation within the application area is unlikely to impact on any areas with high levels of biodiversity.

A two phase seasonal fauna survey of the Cape Lambert Port B development area also encompassing the areas under application, was conducted by Biota Environmental Sciences During October 2007 and March 2008 (Biota Environmental Sciences, 2008b). The survey yielded a combined total of 120 vertebrate species, comprising 63 avifauna species, 17 mammals and 40 herpteofauna species: two frogs and 38 reptiles (Biota Environmental Sciences, 2008b). These figures are comparable to other similar surveys completed in the region and do not indicate a particularly diverse assemblage of fauna. Biota Environmental Sciences (2008b) also state that the species recorded are representative of the taxa commonly recorded in this part of the bioregion.

A total of seven taxa of introduced flora/weed species have been identified from within the largeer Cape Lambert Port B development area; Kapok Bush (*Aerva javanica*), Buffel Grass (*Cenchrus ciliaris*), Purpletop Chloris (*Chloris barbata*), Date Palm (*Phoenix dactylifera*), Pigweed/Purslane (*Portulaca oleracea*), Athel Tree/Tamarisk (*Tamarix aphylla*) and Three Leaved Chaste Tree (*Vitex trifolia var. subtrisecta*) (Biota Environmental Sciences, 2008a). Of these species, only *Tamarix aphylla* is listed as a 'Declared Plant' species under the *Agriculture and Related Resources Protection Act 1976* by the Department of Agriculture and Food. The potential for any of the aforementioned weed species to impact on biodiversity values within the application could be managed through the implementation of weed management conditions.

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

Methodology

Biota Environmental Sciences (2008a)
Biota Environmental Sciences (2008b)
CALM (2002)
GIS Database:
- IBRA Australia

(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

According to available databases there are no known records of threatened fauna having been identified from within the application areas (GIS Database).

During October 2007 and March 2008, Biota Environmental Sciences conducted a two phase seasonal fauna survey of the Cape Lambert Port B development area. This survey included areas which are the subject of this application to clear native vegetation. A total of six broad fauna habitats were defined within the study area, two of which occur within the areas applied to be cleared. These are (Biota Environmental Sciences, 2008b):

1. Soft spinifex (*Triodia epactia*) hummock grasslands and/or Buffel Grass (*Cenchrus ciliaris*) tussock grasslands on loamy coastal plains; and
2. Mixed hummock grasslands on rocky hills and outcrops.

An analysis of aerial imagery shows the majority of the area under application to lie within the coastal plain habitat type (GIS Database). Both habitat types are well distributed throughout the Cape Lambert Port B development area and are typical of fauna habitats found within coastal parts of the Pilbara region (Rio Tinto, 2010).

Biota Environmental Sciences conducted a desktop review of threatened fauna species which have either been

recorded or may potentially occur within the Cape Lambert Port B development area. A total of 12 conservation significant fauna species were noted as potentially occurring within the Cape Lambert Port B development area, however, based on known distributions and habitat preferences it was determined that two Schedule fauna species have the greatest potential to occur within the study area. These are (Biota Environmental Sciences, 2008b):

- Northern Quoll (*Dasyurus hallucatus*); and
- Pilbara Olive Python (*Liasis olivaceus barroni*).

No conservation significant fauna species were recorded during the survey of the Cape Lambert Port B development area (Biota Environmental Sciences, 2008b). Furthermore, core habitats features for the Northern Quoll and Pilbara Olive Python such as gorges, creeklines and permanent water sources were not identified within the application area (Biota Environmental Sciences, 2008b). The relatively small scale of the proposed development and the lack of specialised habitat suggest that the proposal represents a low risk of significant impact to any conservation significant species.

Given the small scale of disturbance proposed to fauna habitats within the application area, it is unlikely that the native vegetation proposed to be cleared is necessary for the on-going maintenance of any significant fauna habitat.

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

Methodology Biota Environmental Sciences (2008b)
Rio Tinto (2010)
GIS Database:
- Cape Lambert 20cm Orthomosaic - Landgate 2005_1 (Image)
- Threatened Fauna

(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) within the application area (GIS Database).

A flora and vegetation survey of the Cape Lambert Port B development area was conducted by Biota Environmental Sciences, comprising of a field survey conducted in October 2007 and a seasonal survey conducted in March 2008 (Biota Environmental Sciences, 2008a).

The flora assessment of the Cape Lambert project area included a desktop search of the Department of Environment and Conservation's (DEC) Threatened Flora database for DRF that may potentially be found within the study area. Quadrat based sampling within vegetation types representative of those found within the application area was also undertaken in support of the flora and vegetation survey (Biota Environmental Sciences, 2008a).

No DRF species were identified within the Cape Lambert Port B development area during the flora and vegetation survey.

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

Methodology Biota Environmental Sciences (2008a)
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**
A search of available databases indicates that there are no Threatened Ecological Communities (TEC's) within any of the application areas (GIS Database). A review of these databases also reveals that there are no TEC's within the Chichester subregion of the Pilbara bioregion (GIS Database).

The nearest TEC is located approximately 166 kilometres south of the application area (GIS Database). At this distance there is little likelihood of any impact to the TEC from the proposed clearing.

Biota Environmental Sciences (2008a) also state that none of the vegetation types within the Cape Lambert Port B development area are listed as TEC's.

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

Methodology Biota Environmental Sciences (2008a)

GIS Database:
- Threatened Ecological Sites Buffered

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

Comments

Proposal is not at variance to this Principle

The application area falls within the Pilbara IBRA bioregion (GIS Database). Shepherd (2007) reports that approximately 99.95% of the pre-European vegetation still exists in this bioregion.

The vegetation in the application area is recorded as Beard Vegetation Association:
157: Hummock grasslands, grass steppe; hard spinifex, *Triodia wiseana* (GIS Database; Shepherd, 2007).

According to Shepherd (2009) approximately 99.9% of this Beard Vegetation Association remains within the Pilbara bioregion (see table below).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Pilbara	17,804,187.89	17,794,646.75	~99.95%	Least Concern	~6.32%
IBRA Subregion - Chichester	8,373,874.43	8,373,620.84	~100%	Least Concern	~3.95%
Beard vegetation associations - State					
157	502,729	501,514	~99.8%	Least Concern	~17.9%
Beard vegetation associations - Bioregion					
157	198,633	198,518	~99.9%	Least Concern	~5.7%

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

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

Methodology

Department of Natural Resources and Environment (2002)
Shepherd (2007)
GIS Database:
- IBRA 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 not likely to be at variance to this Principle

According to available databases, there are no watercourses or wetlands within the application area (GIS Database).

The vegetation types identified within the application area are not associated with wetlands and watercourses (Biota Environmental Sciences, 2008a).

Given the presence of rail infrastructure and associated disturbed ground adjacent to the application area, it is unlikely that the vegetation proposed to be cleared provides a buffer to any minor, non-perennial watercourses, the nearest of which is approximately 230 metres east of the application area at its nearest point (GIS Database).

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

Methodology

Biota Environmental Sciences (2008a)
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

The application area has been surveyed by the Department of Agriculture and Food (DAFWA) (Van Vreeswyk et al., 2004). The application area is composed of the following land systems (GIS Database):

1. Rocklea Land System; and
2. Ruth Land System.

The Rocklea Land System is described as basalt hills, plateaux, lower slopes and minor stony plains supporting hard spinifex (and occasionally soft spinifex) grasslands (Van Vreeswyk et al, 2004). An analysis of aerial photography for the application area reveals the application area is most likely to fall within the 'lower slopes' and 'hills, ridges, plateaux and upper slopes' land units. This land system has a very low erosion risk. The vegetation described by Van Vreeswyk et al. (2004) accurately reflects the vegetation types described in vegetation surveys conducted over the area (Biota Environmental Sciences, 2008a).

The Ruth Land System is described as hills and ridges of volcanic and other rocks supporting hard spinifex (and occasionally soft spinifex) grasslands (Van Vreeswyk et al, 2004). An analysis of aerial photography for the application area reveals the application area is most likely to fall within the 'sandplains' and 'lower slopes and stony plains' land units. This land system is not susceptible to erosion. The vegetation described by Van Vreeswyk et al. (2004) accurately reflects the vegetation types described in vegetation surveys conducted over the area (Biota Environmental Sciences, 2008a).

The application area is not located within an acid sulfate soil (ASS) risk area (GIS Database).

Based on the above and given the small scale of the proposal, the proposed clearing is not likely to be at variance to this Principle.

Methodology

Biota Environmental Sciences (2008a)
Van Vreeswyk et al. (2004)
GIS Database:
- Acid Sulfate Soil Risk Map, Pilbara Coastline
- Rangeland Land System Mapping

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

Comments

Proposal is not likely to be at variance to this Principle

The proposed clearing is not located within a conservation reserve (GIS Database). The nearest known conservation reserve is an un-named C-class nature reserve, located offshore approximately 19.5 kilometres north-west of the application area (GIS Database).

The nearest terrestrial conservation reserve to the application area is the A-class Millstream Chichester National Park located approximately 60 kilometres south (GIS Database).

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

Methodology

GIS Database:
- DEC Tenure

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

Comments

Proposal is not likely to be at variance to this Principle

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

The groundwater salinity within the application area is approximately 1,000 - 3,000 milligrams/Litre Total Dissolved Solids (TDS) (GIS Database). Given the size of the area to be cleared (1.4 hectares) compared to the size of the Pilbara Groundwater Province (5,557,665 hectares) (GIS Database), the proposed clearing is not likely to cause salinity levels within the application area to alter significantly.

The minor, ephemeral watercourses and other seasonally inundated areas surrounding the application area only flow or contain water following seasonal rainfall events or localised falls (Rio Tinto, 2010). Given the small scale of the clearing proposed and distance to the nearest surface hydrological features, it is not expected that the proposed clearing activities would affect the quality of either surface or groundwater.

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

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

Methodology Rio Tinto (2010)
GIS Database
- Groundwater Provinces
- Groundwater Salinity, Statewide
- Hydrography, linear
- Potential Groundwater Dependent Ecosystems
- 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

The application area experiences a semi-desert tropical climate with an average annual rainfall of 303.6 millimetres recorded from the Cossack weather station located approximately 7.5 kilometres south-east of the application area (BoM, 2010).

Local flooding occurs seasonally within the Pilbara region as a result of cyclonic activity and sporadic thunderstorm events (Rio Tinto, 2010). The small size of the application area (1.4 hectares) is unlikely to significantly alter the intensity of flooding within the application area and surrounding areas.

The application area is located within the Coastal catchment area (GIS Database). However, the small area to be cleared (1.4 hectares) in relation to the size of the Coastal catchment area (744,301 hectares) (GIS Database) is not likely to increase the potential for flooding within the application area, local area or within the catchment.

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

Methodology BoM (2010)
Rio Tinto (2010)
GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There is one Native Title Claim (WC99/014) determined over the areas under application. This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are numerous registered Aboriginal sites of significance within and in close proximity to the application areas (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal sites of significance are damaged through the clearing process.

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

The clearing permit application was advertised on 30 August 2010 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

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

4. References

Biota Environmental Sciences (2008a) Cape Lambert Port B Development: Flora and Vegetation Survey. Prepared for Pilbara Iron Pty Ltd. July 2008.

Biota Environmental Sciences (2008b) Cape Lambert Port B Development Seasonal Fauna Survey. Prepared for Pilbara Iron Pty Ltd. July 2008.

BoM (2009) Bureau of Meteorology Website - Climate Averages by Number, Averages for COSSACK. http://www.bom.gov.au/climate/averages/tables. (Accessed 4 November 2010).

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) Application for a clearing permit (Purpose Permit): Monitoring, Production, Reinjection Bores and Access Tracks - LGE I123396 3116 - Supporting Documentation.
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., Hennig, P., and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia, Department of Agriculture, Western Australia.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

Definitions:

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

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

over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

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

Schedule 1 **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.

Schedule 2 **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.

Schedule 3 **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.

Schedule 4 **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

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

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

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

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

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

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

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

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

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

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

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

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

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