Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4991/1
Permit type: Purpose Permit

1.2. Proponent details

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

1.3. Property details

Property: *Iron Ore (Hamersley Range) Agreement Act 1963*, Mineral Lease 4SA (AML 70/4)
Local Government Area: Ashburton
Colloquial name: Mt Wall West Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5.2		Mechanical Removal	Mineral Exploration and Access Tracks

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 28 June 2012

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

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

82: Hummock grassland, low tree steppe; snappy gum over *Triodia wiseana*.

A flora and vegetation survey of the application area and the surrounding areas was conducted by botanists from Rio Tinto (2011) in July 2011. This survey identified 39 vegetation communities occurring within the application area and the surrounding areas (Rio Tinto, 2011). Based on site locations, the following seven communities are likely to occur within the application area (Rio Tinto, 2011):

Hillslope Vegetation
HS7: *Eucalyptus leucophloia* low open woodland over *Acacia bivenosa, Senna glutinosa subsp. glutinosa* open shrubland over *Triodia wiseana* hummock grassland;

HS10: *Eucalyptus leucophloia* low woodland over *Acacia pruinocarpa, Astrotricha hamptonii* open shrubland over *Senna glutinosa subsp. glutinosa, Eremophila tietkensii* shrubland over *Ptilotus obovatus* low shrubland over *Triodia wiseana* hummock grassland;

HS11: *Eucalyptus leucophloia* low open woodland over *Acacia arida, Senna glutinosa* subsp. *pruinosa, Senna glutinosa* subsp. *glutinosa* low open health over *Triodia wiseana* hummock grassland; and

HS12: *Acacia aneura, Acacia xiphophylla* low open forest over *Acacia synchronicia*, *Senna glutinosa* subsp. x *luerssenii, Senna artemisioides* subsp. *artemisioides* open shrubland over *Triodia wiseana* hummock grassland.

Hill Top & Crest Vegetation
HC9: *Eucalyptus leucophloia* low open woodland over *Acacia pruinocarpa, Astrotricha hamptonii* open shrubland over *Senna glutinosa* subsp. *glutinosa* low open shrubland over *Triodia wiseana* hummock grassland; and

HC12: *Eucalyptus leucophloia* low open woodland over *Acacia pruinocarpa* low woodland over *Acacia aneura* over *Senna glutinosa* subsp. *glutinosa*, *Eremophila latrobei* open shrubland over *Triodia wiseana* open hummock grassland over *Eriachne mucronata* very open tussock grassland.

Gorge Vegetation
G4: *Corymbia ferriticola* low woodland *Eremophila tietkensii*, *Dodonaea pachyneura* shrubland over *Acacia pruinocarpa, Astrotricha hamptonii* open shrubland over *Sida* sp. Barlee Range low open shrubland over *Triodia wiseana, Triodia melvillei* hummock grassland over *Themeda triandra* very open tussock grassland.

Clearing Description

Hamersley Iron Pty Ltd is proposing to clear up to 5.2 hectares of native vegetation within a broader boundary of approximately 110 hectares for the purpose of undertaking mineral exploration.

Clearing will be conducted using blade down techniques where practicable or scrub rake on level terrain. Existing

tracks may require maintenance and tracks may be graded using blade down techniques.

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

Comment The application area is located within the Pilbara region of Western Australia and is situated approximately 110 kilometres west of Tom Price.

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 proposed clearing is located approximately 110 kilometres west of Tom Price in the Hamersley subregion of the Pilbara Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). The Hamersley subregion can be broadly described as Mulga low woodland over bunch grasses on fine textured soils in valley floors and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges (CALM, 2002).

A flora and vegetation survey of the application area and surrounding areas was conducted by botanists from Rio Tinto (2011) in July 2011. A total of 213 flora species from 42 families and 105 genera were recorded in the survey area, which is within the expected range for a survey of this size in the Hamersley subregion (Rio Tinto, 2011).

There are no known Threatened or Priority Ecological Communities within the application area (GIS database). One of the vegetation communities recorded within the application area, HS12, may be considered representative of the 'lower slope mulga' ecosystem at risk listed by CALM (2002). The key threatening process to this community is frequent fires preventing regeneration (CALM, 2002). The small scale and low impact nature of the proposed clearing is not likely to impact significantly on this community and is also not likely to increase the occurrence of fire in the area.

Two flora species listed as Priority 3, *Indigofera* sp. Bungaroo Creek and *Sida* sp. Barlee Range, and one flora species listed as Priority 4, *Ptilotus mollis*, were recorded within the application area during a flora survey conducted by botanists from Rio Tinto (2011). These species are all known from numerous locations outside of the application area and it is considered unlikely that the proposed clearing will impact on the conservation of any of these species. No Threatened Flora species have been recorded within the application area (Rio Tinto, 2011; GIS Database).

A flora and vegetation survey conducted by botanists from Rio Tinto (2011) identified five weed species, *Aerva javanica, Acetosa vesicaria, Argemone ochroleuca, Cenchrus ciliaris* and *Solanum elaeagnifolium*, within areas adjacent to the application area. 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 can in turn lead to greater rates of infestation and further loss of biodiversity if the area is subject to repeated fires. None of these species are listed as 'Declared Plant' species under the *Agriculture and Related Resources Protection Act 1976* by the Department of Agriculture and Food. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

No targeted fauna surveys have been conducted over the application area, however based on flora and vegetation surveys, five broad fauna habitats have been identified within the application area (Rio Tinto, 2011). These habitats are considered to be well represented within the Hamersley subregion and none of the landforms or habitats within the application area are considered to be unique or restricted in range (Rio Tinto, 2011).

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

Methodology

CALM (2002)
Rio Tinto (2011)
GIS Database:
- IBRA WA (regions – subregions)
- Threatened Ecological Sites Buffered
- Threatened and Priority Flora

(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

No fauna surveys have been conducted over the application area. A flora survey of the application area identified the following five vegetation communities within the application area (Rio Tinto, 2011):

- *Eucalyptus leucophloia* scattered low trees and *Acacia* spp. shrubland over various species (mainly *Triodia wiseana*) of spinifex on hill slopes;

- *Eucalyptus leucophloia* low open woodland and *Acacia* sp. (including mulga) shrubland over *Triodia wiseana, Triodia bitextura* hummock grassland on hill crests and hill tops;

- *Corymbia ferriticola/Eucalyptus leucophloia* with emergent *Melaleuca glomerata* low woodland over mixed *Acacia* spp. shrubland over *Triodia wiseana* hummock grassland in gorges;

- Snakewood (*Acacia xiphophylla*) or mixed *Acacia* shrubland over *Triodia wiseana* hummock grassland on floodplains and stony plains; and

- *Eucalyptus camaldulensis* or *Melaleuca glomerata* low woodland over various *Acacia* spp. woodland/shrubland and mixed low shrubland/herbland with tussock grasslands (commonly *Cenchrus ciliaris*) or open sedgelands of *Cyperus vaginatus, Typha domingensis* in minor and major ephemeral watercourses.

During the flora survey by Rio Tinto (2011) one Western Pebble-mound Mouse mound was recorded in an area adjacent to the application area. The low impact, non-contiguous nature of the proposed clearing renders it unlikely to impact on the conservation of this species.

The assessing officer conducted a desktop survey of the application area using a 15 kilometre buffer of an overlying exploration tenement (E47/781) using NatureMap (DEC, 2012). According to NatureMap (DEC, 2012) the following five conservation significant fauna species have been recorded within 15 kilometres of the application area:

- Australian Bustard (*Ardeotis australis*) – Priority 4 - This species is highly nomadic and the small amount of clearing (5.2 hectares) and the low impact nature render it unlikely that the conservation of the Australian Bustard will be significantly impacted;
- Peregrine Falcon (*Falco peregrinus* subsp. *macropus*) – Schedule 4 - This species is considered to have a widespread distribution and occurs mainly on cliffs along coasts, rivers and ranges, and about wooded watercourses and lakes (Johnstone and Storr, 1998). No wooded watercourses or lakes occur within the application area, however cliffs may be present (GIS Database). The proposed clearing is not likely to significantly impact upon cliffs, therefore the proposed clearing is not likely to significantly impact on the conservation of this species;
- *Malurus lamberti* subsp. *bernieri* – Threatened - This species is endemic to the Bernier and Dorre Islands near Carnarvon. Given the large distance between the application area and Bernier and Dorre Islands it is considered unlikely that the proposed clearing will significantly impact upon the conservation of this species;
- *Malurus leucopterus* subsp. *leucopterus* – Threatened – This species is endemic to Dirk Hartog Island (Johnstone and Storr, 2004). The proposed clearing is therefore not likely to impact on the conservation of this species; and
- *Ramphotyphlops ganei* – Priority 1 – According to NatureMap (DEC, 2012), this species is known from a broad distribution throughout the Pilbara. Given the small scale and low impact nature of the proposed clearing, it is considered unlikely that the proposed clearing will significantly impact on the conservation of this species.

During a flora survey conducted by botanists from Rio Tinto (2011) a number of caves were recorded in the areas adjacent to the application area. Caves have the potential to accommodate a number of conservation significant and non conservation significant fauna species (Rio Tinto, 2011). Given that no conservation significant fauna species reliant on cave habitat have been located within a 15 kilometre radius of the application area and the low impact nature of the proposed clearing, it is considered unlikely that the proposed clearing will significantly impact on the conservation of any fauna species.

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

Methodology

DEC (2012)
Johnstone and Storr (1998)
Johnstone and Storr (2004)
Rio Tinto (2011)
GIS Database:
- Hydrography, linear
- Topographic Contours, Statewide

(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

No Threatened Flora species are known to occur within the application area (GIS Database).

A flora survey of the application area was conducted by botanists from Rio Tinto (2011) in July 2011. No Threatened Flora species were recorded during this survey (Rio Tinto, 2011).

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

Methodology

Rio Tinto (2011)
GIS Datbase:
- Threatened and Priority Flora

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

Comments

Proposal is not likely to be at variance to this Principle

There are no known records of Threatened Ecological Communities (TEC's) within the application area (GIS Database). The nearest known TEC is approximately 66 kilometres north east of the application area (GIS Database). At this distance, there is little likelihood of any impacts to the TEC as a result of the proposed clearing.

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

Methodology

GIS Database:
- Threatened Ecological Sites Buffered

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

Comments

Proposal is not at variance to this Principle

The application area is located within the Pilbara Interim Biogeographical Regionalisation for Australia (IBRA) bioregion (GIS Database). The Government of Western Australia (2011) reports that approximately 99.58% of the pre-European vegetation remains within the Pilbara bioregion.

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

82: Hummock grassland, low tree steppe; snappy gum over *Triodia wiseana*.

According to the Government of Western Australia (2011) approximately 99.51% of Beard vegetation association 82 remains within the Pilbara bioregion (see table on next page).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Pilbara	17,804,427	17,729,352	~99.58	Least Concern	~6.32
Beard vegetation associations - State					
82	2,565,901	2,553,217	~99.51	Least Concern	~10.24
Beard vegetation associations - Bioregion					
82	2,563,583	2,550,889	~99.51	Least Concern	~10.25

* Government of Western Australia (2011)
** Department of Natural Resources and Environment (2002)

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

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

Methodology

Department of Natural Resources and Environment (2002)
Government of Western Australia (2011)
GIS Database:
- IBRA WA (regions – subregions)
- Pre-European Vegetation

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

Comments

Proposal is not at variance to this Principle

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

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

Methodology

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 intersects the Newman land system (GIS Database). This land system is characterised by dissected slopes and raised plains supporting hard Spinifex grasslands (Van Vreeswyk et al, 2004). This land system is not susceptible to erosion (Van Vreeswyk et al., 2004).

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

Methodology

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 at variance to this Principle

The application area is not located within a conservation area (GIS Database). The nearest known conservation area is Barlee Range Nature Reserve located approximately 75 kilometres south west of the application area (GIS Database). At this distance it is considered unlikely that the proposed clearing will impact on the environmental values of any conservation area.

Based on the above, the proposed clearing is not 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

The application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). The nearest PDWSA is the Millstream Water Reserve, located approximately 85 kilometres north east of the application area (GIS Database). At this distance it is considered unlikely that the proposed clearing will impact on the quality of the Millstream Water Reserve.

The groundwater salinity within the application area is approximately 500 – 1,000 milligrams/Litre Total Dissolved Solids (TDS) (GIS Database). Given the relatively low impact, non contiguous nature of the proposed clearing within 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.

According to available databases, there are no perennial or non-perennial wetlands or watercourses within the application area (GIS Database). Additionally, the annual average rainfall is approximately 329.7 millimetres and the annual average evaporation is approximately 3,400 millimetres (BoM, 2012; GIS Database). Therefore any water pooling on the surface is likely to be short lived.

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

Methodology

BoM (2012)
GIS Database:
- Evaporation Isopleths
- Groundwater Provinces
- Groundwater Salinity, Statewide
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSAs)

(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

Local flooding occurs seasonally in the Pilbara as a result of cyclonic and sporadic thunderstorm activity (Rio Tinto, 2011). The low impact, non-contiguous nature of the proposed clearing renders it unlikely to cause or exacerbate the incidence or intensity of flooding.

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

Methodology

Rio Tinto (2011)

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

Comments

There is one Native Title Claim (WC01/5) over the area under application (GIS Database). This claim has been registered with the 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 no registered Aboriginal Sites of Significance within the application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

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

The clearing permit application was advertised on 23 April 2012 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 Claims - Determined by the Federal Court

4. References

BoM (2012) BoM Website - Climate Averages by Number, Averages for PORT HEDLAND AIRPORT. www.bom.gov.au/climate/averages/tables.shtml (Accessed 14 June 2012)

DEC (2012) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: http://naturemap.dec.wa.gov.au/

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

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.

Government of Western Australia (2011) 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.

Johnstone, R.E. & G.M. Storr (1998). Handbook of Western Australian Birds. Vol. 1: Non-passerines (Emu to Dollarbird). Perth, Western Australia: West Australian Museum.

Johnstone, RE & Storr, GM (2004) Handbook of Western Australian Birds: Volume 2: Passerines (Blue-winged Pitta to Goldfinch), Western Australian Museum, Perth.

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 (2011) Flora and Vegetation Survey for Proposed Exploration Drilling at Mt Wall West Tenement. Unpublished report dated September 2012.

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.