



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4690/1
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: Shire of Ashburton
Colloquial name: Metawandy Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 8 December 2011

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
<p>Beard vegetation associations have been mapped for the whole of Western Australia. One Beard vegetation association has been mapped within the application area.</p> <p>82: Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i> (GIS Database).</p> <p>A flora and vegetation survey was conducted over the application area in July 2011 by a Rio Tinto botanist as part of a larger survey (Rio Tinto, 2011). Based on the location of the described vegetation units and orthophotos, the following vegetation types occur within the application area:</p> <p><u>Hill Slope Vegetation</u></p> <p>HS4: <i>Acacia aneura</i>, <i>Acacia pruinocarpa</i> high open shrubland over <i>Triodia wiseana</i> hummock grassland.</p> <p><u>Drainage Line Vegetation</u></p> <p>D3: <i>Acacia citrinoviridis</i>, <i>Acacia aneura</i>, <i>Santalum lanceolatum</i> low open forest over <i>Senna oligophylla</i>, <i>Eremophila forrestii</i>, <i>Acacia pyrifolia</i> shrubland over <i>Triodia wiseana</i> open hummock over <i>Cymbopogon ambiguus</i> very open tussock grassland.</p> <p><u>Hill Top and Breakaway Vegetation</u></p> <p>HTB3: <i>Grevillea berryana</i>, <i>Acacia citrinoviridis</i>, <i>Acacia rhodophloia</i> low woodland over <i>Eremophila latrobei</i> open shrubland <i>Triodia wiseana</i> hummock grassland.</p> <p>HTB4: <i>Eucalyptus leucophloia</i> low woodland</p>	<p>Hamersley Iron Pty Ltd has applied to clear up to 4 hectares of native vegetation within an application area of approximately 50.5 hectares for the purpose of mineral exploration, geotechnical investigations and access tracks. The clearing is for drill holes, drill pads, sumps and access tracks. The application area is located approximately 120 kilometres north-west of Paraburdoo.</p> <p>Vegetation will be cleared using a dozer with the blade raised where possible. The blade down technique will be used where required for safety reasons. Vegetation and topsoil will be stockpiled and used in rehabilitation.</p>	<p>Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).</p>	<p>The vegetation condition was assessed by botanists from Rio Tinto (2011). The vegetation conditions were described using a scale based on Trudgen (1988) and have been converted to the corresponding conditions from the Keighery (1994) scale.</p>

over *Acacia pruinocarpa* high open shrubland over *Dodonaea pachyacra*, *Eremophila tietkensis*, *Scaevola spinescens* shrubland over *Triodia wiseana*, *Triodia melvillei* hummock grassland.

Plains Vegetation

F3: *Acacia xiphophylla* open scrub over *Acacia synchronicia*, *Rhagodia eremaea* open shrubland over *Triodia longiceps*, *Triodia wiseana* open hummock grassland.

3. Assessment of application against clearing principles

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

Comments

Proposal is not likely to be at variance to this Principle

The application area occurs within the Hamersley (PIL3) Interim Biogeographic Regionalisation of Australia (IBRA) subregion (GIS Database). This subregion is generally 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 is broadly mapped as Beard vegetation association 82, which has approximately 100% of its pre-European vegetation extent remaining (Shepherd, 2009; GIS Database). A flora and vegetation survey was conducted over the application area in July 2011 by a Rio Tinto botanist as part of a larger survey that covered approximately 415 hectares. All of the vegetation types that were identified during the survey are considered to be widely distributed and relatively well represented in the locality (Rio Tinto, 2011).

A total of 151 native vascular plant taxa from 74 genera belonging to 36 families were recorded from the larger survey area during the flora and vegetation survey (Rio Tinto, 2011). The total number of native species recorded is within the expected range for an area of this size in the locality and is considered to represent average species richness for the locality (Rio Tinto, 2011). The most species rich genera were *Acacia*, *Eremophila*, *Ptilotus* and *Senna*; which is typical of vegetation in the Pilbara (Rio Tinto, 2011).

No Declared Rare Flora, Threatened Ecological Communities or Priority Ecological Communities were recorded during the flora and vegetation survey or have previously been recorded within the application area (Rio Tinto, 2011; GIS Database).

Three Priority flora species were recorded during the flora and vegetation survey with two of the species occurring within the application area (Rio Tinto, 2011). One population of *Sida* sp. Hamersley Range (Priority 1) with 5 individual plants was recorded within the application area and Hamersley Iron Pty Ltd have committed to avoiding the plants (Rio Tinto, 2011). This species is only known from six herbarium records (Western Australian Herbarium, 2011) so this population may be considered to have high conservation significance. Potential impacts to this species as a result of the proposed clearing may be minimised by the implementation of a flora management condition. One population of *Indigofera* sp. Bungaroo Creek (Priority 3) was recorded within the application area whilst another three populations were recorded in close proximity to, but outside, the application area (Rio Tinto, 2011). Each population contained between 1 and 10 plants (Rio Tinto, 2011). *Ptilotus mollis* (Priority 4) was recorded at three locations during the survey but none were within the application area (Rio Tinto, 2011). The clearing is not likely to significantly impact the conservation of either species and Hamersley Iron Pty Ltd will be avoiding the populations where possible (Rio Tinto, 2011).

Three introduced flora species were recorded during the flora and vegetation survey (Rio Tinto, 2011). These weed species were Bipinnate Beggartick (*Bidens bipinnata*), Buffel Grass (*Cenchrus ciliaris*) and Spiked Malvastrum (*Malvastrum americanum*) (Rio Tinto, 2011). Care must be taken to ensure that the proposed clearing activities do not spread or introduce weed species to non-infested areas. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

Three primary fauna habitats were identified within the application area:

- Hill tops and slopes dominated by Eucalypts over *Acacia* spp. over Spinifex (*Triodia* spp.);
- Flats dominated by *Acacia* over *Triodia*;
- Drainage areas (Rio Tinto, 2011).

These fauna habitats types are considered to be widespread and relatively well represented in the Hamersley subregion of the Pilbara bioregion (Rio Tinto, 2011). Therefore fauna diversity is likely to be within expected levels for the area.

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

Methodology CALM (2002)
Rio Tinto (2011)
Shepherd (2009)
Western Australian Herbarium (2011)
GIS Database:
- IBRA WA (Regions - Sub Regions)
- Pre-European Vegetation
- Threatened and Priority Flora
- Threatened Ecological Sites Buffered

(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 targeted fauna surveys have been conducted over the application area. A desktop search was conducted and fauna habitat observations of the application area were noted by Rio Tinto (2011).

Three primary fauna habitats were identified within the application area:

- Hill tops and slopes dominated by Eucalypts over *Acacia* spp. over Spinifex (*Triodia* spp.);
- Flats dominated by *Acacia* over *Triodia*;
- Drainage areas (Rio Tinto, 2011).

The primary fauna habitats present within the application area are reasonably widespread in the locality (Rio Tinto, 2011). No significant habitat features such as caves, permanent water sources or gorges were identified within the application area (Rio Tinto, 2011; GIS Database).

Western Pebble-mound Mouse (*Pseudomys chapmanii*) (DEC Priority 4) is known from the area but no mounds were recorded within the application area during the field survey (Rio Tinto, 2011).

According to Rio Tinto (2011), the fauna habitats available within the application area are not restricted in the local area or at a subregional scale. Therefore it is considered unlikely that the application area represents significant habitat for fauna indigenous to Western Australia.

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

Methodology Rio Tinto (2011)
GIS Database:
- Hydrography, Linear

(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). The nearest record of DRF, *Lepidium catapycnon*, is located approximately 85 kilometres east of the application area (GIS Database).

A flora and vegetation survey of the application area and its surrounds was conducted by a Rio Tinto botanist in July 2011. No DRF species were recorded during the 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 Database:
- 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**
A search of available databases revealed that there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest recorded TEC is located approximately 70 kilometres north-east of the application area (GIS Database).

No TECs were recorded in the application area or the larger survey area during the flora and vegetation survey conducted by a Rio Tinto botanist (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 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 clearing 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) (Shepherd, 2009; GIS Database). This gives it a conservation status of 'Least Concern' according to the Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment, 2002).

The vegetation of the clearing application area has been mapped as Beard vegetation association 82 'Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*' (Shepherd, 2009; GIS Database). According to Shepherd (2009), approximately 100% of this vegetation association remains at a state and bioregional level. This vegetation association would be given a conservation status of 'Least Concern' at both a state and bioregional level (Department of Natural Resources and Environment, 2002).

The vegetation under application is not a remnant of vegetation in an area that has been extensively cleared.

	Pre-European Area (ha)*	Current Extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion – Pilbara	17,804,193	17,785,001	~99.9	Least Concern	6.3
Beard Veg Assoc. – State					
82	2,565,901	2,565,901	~100	Least Concern	10.2
Beard Veg Assoc. – Bioregion					
82	2,563,583	2,563,583	~100	Least Concern	10.2

* Shepherd (2009)

** 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 (2009)
 GIS Database
 - IBRA WA (Regions - Sub Regions)
 - Pre-European Vegetation

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

Comments Proposal is at variance to this Principle

There are no permanent watercourses or wetlands within the application area (Rio Tinto, 2011; GIS Database). However, there is one ephemeral drainage line that crosses part of the application area (GIS Database).

One of the vegetation types within the application area, D3, is associated with drainage lines (Rio Tinto, 2011). There are ephemeral drainage lines throughout the locality and they are only likely to flow during significant rainfall events (Rio Tinto, 2011).

Based on the above, the proposed clearing is at variance to this Principle. However, vegetation associated with minor drainage lines is widespread in the Pilbara region and due to the minor nature of the proposed clearing for geotechnical investigation and exploration activities there is unlikely to be significant impacts on any watercourse or wetland.

Methodology Rio Tinto (2011)
 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 datasets the application area intersects the Newman and Platform Land Systems (GIS Database).

The Newman Land System is characterised by rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands (Van Vreeswyk et al., 2004). Each of the landforms in the land system have a mantle of abundant pebbles of ironstone and other rocks, which translates to a low soil erosion risk (Van Vreeswyk et al., 2004).

The Platform Land System is characterised by dissected slopes and raised plains supporting hard spinifex grasslands (Van Vreeswyk et al., 2004). The land forms in this land system generally have surface mantles of very abundant pebbles and cobbles and the system is not susceptible to erosion (Van Vreeswyk et al., 2004).

Hamersley Iron Pty Ltd has applied to clear up to 4 hectares within an application area totalling approximately 50.5 hectares. Disturbance will be for geotechnical investigations and exploration activities using machinery with the blade up where practicable to ensure soil is not removed (Hamersley Iron Pty Ltd, 2011). The proposed clearing activities are not likely to result in large areas of disturbed or open land. Given the small size of the proposed activities, the clearing is not likely to result in appreciable land degradation.

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

Methodology Hamersley Iron Pty Ltd (2011)
Van Vreeswyk et al. (2004)
GIS Database:
- Rangeland Land System Mapping

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

Comments Proposal is not likely to be at variance to this Principle

The proposed clearing is not located within a conservation reserve (GIS Database). The nearest conservation area is Barlee Range Nature Reserve, which is located approximately 67 kilometres south-west of the application area (GIS Database). A large proportion of the vegetation in the Pilbara bioregion remains uncleared, approximately 99.9% (Shepherd, 2009), so it is unlikely that the application area provides an important buffer or ecological linkage for the nature reserve.

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

Methodology Shepherd (2009)
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

There are no permanent watercourses or wetlands within the application area (GIS Database). There is one minor ephemeral drainage line within the application area that would only flow following substantial rainfall events (Rio Tinto, 2011). Given the small scale of the proposed clearing, it is unlikely to cause deterioration in the quality of surface or underground water in the local area.

According to available databases the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). The nearest PDWSA is Millstream Water Reserve, which is approximately 90 kilometres to the north-east (GIS Database). The proposed clearing is unlikely to affect the water quality of the water reserve due to the large distance between it and the application area.

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

Methodology Rio Tinto (2011)
GIS Database:
- 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

The application area is located within the Ashburton River catchment area (GIS Database). Given the size of the area to be cleared (4 hectares) in relation to the size of the catchment area (7,877,743 hectares) (GIS

Database), the proposed clearing is not likely to increase the potential of flooding on a local or catchment scale.

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

Methodology GIS Database:
- Hydrographic Catchments - Catchments

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 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 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 14 November 2011 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Registered with the NNTT

4. References

- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Pilbara 3 (PIL3 - Hamersley Subregion). Department of Conservation and Land Management, Western Australia.
- 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.
- Hamersley Iron Pty Ltd (2011) Documentation Accompanying Clearing Permit Application CPS 4690/1. Prepared by Hamersley Iron Pty Ltd, October 2011.
- 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 Evaluation Drilling at Metawandy, Native Vegetation Clearing Permit Supporting Report. Report by Rio Tinto, September 2011.
- Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Trudgen, M.E. (1988) A Report on the Flora and Vegetation of the Port Kennedy Area. Unpublished Report Prepared for Bowman Bishaw and Associates, West Perth.
- Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) Technical Bulletin - An Inventory and Condition Survey of the Pilbara Region, Western Australia, No. 92. Department of Agriculture, Government of Western Australia, Perth, Western Australia.
- Western Australian Herbarium (2011) FloraBase - The Western Australia Flora. Department of Environment and Conservation. URL: <http://florabase.dec.wa.gov.au> (Accessed 28/11/2011).

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.