

## **Clearing Permit Decision Report**

### 1. Application details

Permit application details

Permit application No.: 6205/1

Permit type: Purpose Permit

Proponent details 1.2.

Proponent's name: **Mount Gibson Mining Limited** 

1.3. Property details

Property: Mining Lease 59/454

Mining Lease 59/609

**Local Government Area:** Shire of Yalgoo Colloquial name: Extension Hill Project

**Application** 1.4.

Clearing Area (ha) No. Trees **Method of Clearing** For the purpose of: Mechanical Removal Mineral Exploration

0.22

1.5. **Decision on application** 

**Decision on Permit Application:** 

**Decision Date:** 

## 2. Site Information

**Vegetation Description** 

### 2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Beard vegetation associations have been mapped for the whole of Western Australia and are useful to look at vegetation in a regional context. One Beard vegetation association has been mapped within the application area:

495: Shrublands; thicket, Jam & Allocasuarina acutivalvis on ironstone.

A flora and vegetation assessment was conducted over the wider region by ATA Environmental (2006), followed by a targeted flora and vegetation assessment over the application area conducted by MBS Environmental

(2013). One vegetation association was mapped over the application area:

Tall Open Scrub to Tall Open Shrubland dominated by Melaleuca scalena and Baeckea benthamii (ms) with occasional Allocasuarina acutivalvis subsp. prinsepiana over a Closed Low Heath dominated by Acacia aneura

var. aneura over a Very Open Herbland dominated by Ecdeiocolea monostachya.

Clearing Description Extension Hill Project.

> Mount Gibson Mining Limited (MGX) proposes to clear up to 0.22 hectares within a total boundary of 0.22 hectares for the purpose of mineral exploration. The project is located approximately 76.5 kilometres north, north-

west of Wubin. in the Shire of Yalgoo.

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

Comment Vegetation condition was derived from the survey conducted by ATA Environmental (ATA, 2006).

The proposed clearing is for the purpose of an infill exploration program.

## 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 Merredin or AW1 - Ancient Drainage sub-region of the Avon Wheatbelt Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). This bioregion is characterised by residual lateritic uplands and derived sandplains which support proteaceous scrub-heaths rich in endemics, and Quaternary alluvials and eluvials which support mixed eucalypt, Allocasuarina huegeliana and Jam-York Gum woodlands (CALM, 2002).

The application area occurs within the Extension Hill 'Mount Gibson Range vegetation complexes (banded ironstone formation)' Priority Ecological Community (PEC) (Priority 1) (GIS Database), to which mining is the primary threat (DPaW, 2014). Vegetation communities within the Mount Gibson range are not found within other banded ironstone formations (BIFs), and contain a number of endemic flora species, including the Declared Rare Flora (DRF) species *Darwinia masonii* and *Lepidosperma gibsonii* (DEC, 2007). A total of 285 flora species have been recorded within the Mount Gibson ranges, including the two aforementioned Threatened flora and seven Priority flora, suggesting that the Mount Gibson ranges represent an area of high floristic diversity (DEC, 2007). However, the clearing of 0.22 hectares within a total mapped area of approximately 2,423 hectares (including buffers) within the Mount Gibson Range vegetation complex (BIF) on Extension Hill is not likely to significantly impact the biodiversity values of this PEC.

A flora survey was conducted by ATA Environmental in 2006, over multiple tenements north and north-west of the proposed clearing (ATA, 2006). Vegetation type within the application area was inferred from regional mapping conducted following the flora survey (ATA, 2006). A targeted flora survey was conducted over the application area in 2013, and identified a high density of the DRF species *D. masonii* and *L. gibsonii* within 50 metres of the application area, representing an Environmentally Sensitive Area (MBS, 2013). MGX (2014) advise that all conservation significant flora, included the aforementioned DRF species, have been excluded from the application area, and as such the proposed clearing will have no direct impacts on these species.

Up to 144 avian, 66 reptile, eight amphibian and 33 mammal species may occur within the application area and surrounds (ATA, 2005). This includes the conservation significant Malleefowl (*Leipoa ocellata*; Schedule 1), Western Spiny-tailed Skink (*Egemia stokesii badia*; Schedule 1), Peregrine Falcon (*Falco pererinus*; Schedule 4), Major Mitchell's Cockatoo (*Cacatua leadbeateri*; Schedule 4), Australian Bustard (*Ardeotis Australia*; Priority 4), Bushstone Curlew (*Burhinus grallarius*; Priority 4), Hooded Plover (*Charadrius rubricollis*; Priority 4), Whitebrowed Babbler (*Pomatostomus superciliosus*; Priority 4), Crested Bellbird (*Oreoica gutteralis*; Priority 4) and Rainbow Bee-eater (*Merops ornatus*; Migratory) (ATA, 2005; Biologic, 2014a). The Shield-backed Trapdoor Spider (*Idiosoma nigrum*; Schedule 1) may also occur within the application area or surrounding region (Biologic, 2014b).

However, given the limited size (0.22 hectares) and linear shape of the proposed clearing, the proposed clearing is not likely to impact fauna diversity on a local or regional scale. Based on the above, the proposed clearing is not likely to be at variance to this Principle.

### Methodology ATA

ATA (2006)

ATA (2005)

Biologic (2014a)

Biologic (2014b)

CALM (2002)

DEC (2007)

DPaW (2014)

MBS (2013)

MGX (2014)

GIS Database:

- IBRA WA (Regions Sub Regions)
- Pre-European vegetation
- 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

A fauna survey conducted over the wider area by ATA (2005) identified one habitat type within the application area. This habitat type 'ironstone ridge' consists of dense thickets of *Acacia assimilis*, *Allocasuarina acutivalvis* subsp. *Prinsepiana* and *Melaleuca nematophylla* over low shrubland of *Hemigenia* sp. Paynes Find and *Hibbertia crassifolia* in loam pockets in jaspilite rocks (ATA, 2005).

On a local scale, the application area and surrounds have the potential to provide habitat for a number of conservation significant fauna (ATA, 2005). Two species, including the Malleefowl and Shield-backed Trapdoor Spider, were considered to have a high potential to be impacted by the proposed clearing and were therefore the subject of targeted surveys conducted by Biologic (2014a; 2014b). Recently active Mallefowl mounds were recorded within the wider area, however none occurred within one kilometre of the application area (Biologic, 2014a). Similarly, no burrows of the Shield-backed Trapdoor Spider were recorded within the application area or immediate surrounds (Biologic, 2014b).

The application area is not likely to be significant breeding or foraging habitat for any other conservation significant avian species, due to the absence of permanent water, tree hollows, or vertical faces (ATA, 2005; GIS Database).

Given the small size of the proposed clearing, the application area is unlikely to comprise significant habitat on a local or regional scale. Based on the above, the proposed clearing is not likely to be at variance to this Principle.

### Methodology ATA (2005)

Biologic (2014a) Biologic (2014b) GIS Database:

Hydrology, linear

- Mount Gibson 80cm Orthomosaic - Landgate 2005

### (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 rare flora occur within the application area (MBS, 2013; MGX, 2014). However, a high density of *Darwinia masonii* and a number of *Lepidosperma gibsonii* occur within 50 metres of the proposed clearing (MBS, 2013). Some individuals of *D. masonii* appear to occur within 10 metres of the application area (MGX, 2014), and therefore may be at risk of indirect impacts from the proposed clearing. However, given the clearing is limited to 0.22 hectares and will be rehabilitated within six months of disturbance (as per exploration approvals), there is a low probability that indirect impacts from clearing activity will significantly impact rare flora on a local or regional scale.

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

Methodology MBS (2013)

MGX (2014)

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

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

According to available databases, there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). Flora and vegetation assessments over the application area did not record any vegetation communities which were representative of a TEC (ATA, 2006; MBS, 2013). The nearest known TEC is approximately 80 kilometres north-west of the application area (GIS Database).

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

Methodology ATA (2006)

MBS (2013) 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 occurs within the Avon Wheatbelt Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, in which approximately 18.7% of the pre-European vegetation remains (see table) (GIS Database; Government of Western Australia, 2013).

The vegetation within the application area has been mapped as Beard vegetation association 495 (GIS Database). Almost 100% of Beard vegetation association 495 remains at both a state and bioregional level (Government of Western Australia, 2013). The nearest extensively cleared area has been cleared for agricultural purposes and occurs approximately 36 kilometres south and 43 kilometres west of the proposed clearing (GIS Database). Vegetation to the north and east of the application area is mostly continuous, and has not been subjected to landscape-scale fragmentation (GIS Database).

Although the application area lies within the boundary for the Avon Wheatbelt, it does not represent a significant remnant of native vegetation within an area that has been extensively cleared. Based on aerial imagery, the vegetation within the application area is neither a remnant itself nor does it form part of any remnants within the local area (GIS Database).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW Managed Lands (and post clearing %)
IBRA Bioregion – Avon Wheatbelt	9,517,109	1,778,407	~18.7	Vulnerable	~2.4 (9.6)
IBRA Subregion - Merredin	6,524,181	1,368,789	~21.0	Vulnerable	~2.5 (9.1)
Local Government - Shire of Yalgoo	2,794,952	2,733,274	~97.8	Least Concern	~22.5 (23.0)
Beard veg assoc. – State					
495	8493	8493	~100.0	Least Concern	~0.0 (0.0)
Beard veg assoc. – Bioregion					
495	8,411	8,411	~100.0	Least Concern	~0.0 (0.0)
Beard veg assoc. – subregion					
495	8,411	8,411	~100.0	Least Concern	~0.0 (0.0)

<sup>\*</sup> Government of Western Australia (2013)

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 (2013)

**GIS Database** 

- IBRA WA (Regions Sub Regions)
- Mount Gibson 80cm Orthomosaic Landgate 2005
- 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 watercourses within the application area (GIS Database). Vegetation within the application area is mapped as 'Tall Open Scrub to Tall Open Shrubland dominated by *Melaleuca scalena* and *Baeckea benthamii* (ms) with occasional *Allocasuarina acutivalvis* subsp. *prinsepiana* over a Closed Low Heath dominated by *Acacia aneura* var. *aneura* over a Very Open Herbland dominated by *Ecdeiocolea monostachya*' (ATA, 2006). The mapped area of this vegetation association is broad, and based on available databases is not associated with the occurrence of any watercourse or wetland (GIS Database).

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

## Methodology

ATA (2006)

GIS Database:

- Hydrology, 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 occurs within the Tallering land system (GIS Database). This land system contains prominent ridges and hills of banded ironstone, dolerite and sedimentary rocks supporting bowgada and other acacia shrublands (Payne et al., 1998). Due to a land cover of stone mantle, this land system is not considered to be susceptible to erosion (Payne et al., 1998).

The proponent has advised that the proposed clearing activity will not expose materials which have the potential to be acid forming, nor will it contribute to salinisation given the groundwater table sits approximately 70 metres below the land surface (MGX, 2014). This area is considered to fall outside of Dieback (*Phytophthora cinnamomi*) risk areas, as it receives less than 400 millimetres of rainfall per year (MGX, 2014).

Based on the land system within which the application occurs and the small area proposed to be cleared (0.22 hectares), the proposed clearing is not likely to be at variance to this Principle.

### Methodology

MGX (2014)

Payne et al. (1998)

<sup>\*\*</sup> Department of Natural Resources and Environment (2002)

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 application area does not lie within any conservation areas managed by the Department of Parks and Wildlife (GIS Database). The nearest conservation area is the Karara former pastoral lease, which is proposed for conservation and located approximately 40.5 kilometres north-west of the application area. From this distance, the proposed clearing is not likely to impact the environmental values of this conservation area.

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

The application area does not occur within a Public Drinking Water Source Area (PDWSA), however it is located within the proclaimed East Murchison groundwater area under the *Rights in Water and Irrigation Act* 1914 (GIS Database). No minor or major watercourses occur within the application area, however one minor, non-perennial watercourse lies approximately 200 metres east of the proposed clearing (GIS Database). The proposed clearing of 0.22 hectares is not considered likely to cause deterioration in the quality of surface water in or around the application area.

Groundwater salinity in the local area is estimated to be between 7,000 - 14,000 milligrams/Litre Total Dissolved Solids (TDS), which is considered saline (GIS Database). The groundwater table sits approximately 70 metres below the surface (MGX, 2014). The proposed clearing activity is not likely to significantly alter salinity levels within the application area.

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

#### Methodology

GIS Database:

- Groundwater Salinity, Statewide
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSAs)
- RIWI Act, Groundwater Areas

## (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

Mean annual rainfall in Dalwallinu, the nearest weather station to the application area, is approximately 286.3 millimetres, with the highest rainfall occurring during the winter months (BoM, 2014). The proponent advises that there is minimal topsoil present within the application area (MGX, 2014), which means that the landscape is not likely to have a high natural permeability to rainfall. Given both the scale of clearing proposed and the characteristics of the landform, the proposed clearing is not likely 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

BoM (2014) MGX (2014)

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

### Comments

There is one native title claim over the application area (GIS Database). This claim (WC96/098) has been registered with the Native Title Tribunal on behalf of the claimant group (GIS Database). However, 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 is one registered Site of Aboriginal Significance located in the area applied to clear (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Sites of Aboriginal Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation, the Department of

Parks and Wildlife 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 18 August 2014 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

#### Methodology

GIS Database:

- Aboriginal Sites of Significance
- Native Title Claims Registered with the NNTT
- Native Title Claims Filed at the Federal Court

#### 4. References

- Biologic (2014a) Mount Gibson Ranges Targeted Malleefowl Survey, Consultants report prepared for Mount Gibson Mining Limited, June 2014.
- Biologic (2014b) Mount Gibson Ranges Targeted *Idiosoma nigrum* Survey, Consultants report prepared for Mount Gibson Mining Limited, June 2014.
- BoM (2014) Climate Statistics for Australian Locations. A Search for Climate Statistics for Dalwallinu, Australian Government Bureau of Meteorology, http://www.bom.gov.au/climate/averages/tables/cw\_007091.shtml, accessed September 2014.
- CALM (2002) Bioregional Summary of the 2002 Biodiversity Audit for Western Australia. Department of Conservation and Land Management, Western Australia. DEC (2007) Banded ironstone formation ranges of the Midwest and Goldfields: Interim status Report, Biodiversity Values and Conservation Requirement. Department of Environment and Conservation. Perth.
- DEC (2007) Banded ironstone formation ranges of the Midwest and Goldfields: Interim status Report, Biodiversity Values and Conservation Requirement. Department of Environment and Conservation, Perth.
- DEC (2011) Invasive Plant Prioritisation, Department of Environment and Conservation, Perth.
- DPaW (2014) Priority Ecological Communities for Western Australia Version 21, Species and Communities Branch, Department of Parks and Wildlife, 4 May 2014.
- 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 (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, 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.
- MBS (2013) Targeted Flora Survey Extension Hill Hematite Project Midwest Region, Western Australia: Iron Hill and Gibson Hill Prospect Areas, consultants report prepared by MBS Environmental for Mount Gibson Mining Limited, July 2013.
- MGX (2014) Mount Gibson Ranges Mine Operations Iron Hill Deposit: Clearing Permit Application Supporting Information, prepared by Mount Gibson Mining Limited, April 2014.
- Payne, A.L., Van Vreeswyk, A.M.E., Pringle, H.J.R., Leighton, K.A., Hennig, P. (1998) An inventory and condition survey of the Sandstone-Yalgoo-Paynes Find area, Western Australia, Technical Bulletin No. 90, Department of Agriculture Western Australia, South Perth.

## 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 — 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 — 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 — 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.

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.