Government of **Western Australia**
Department of **Mines and Petroleum**

# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

**Permit application No.:** 3592/1
**Permit type:** Purpose Permit

### 1.2. Proponent details

**Proponent's name:** **Robe River Ltd**

### 1.3. Property details

**Property:** *Iron Ore (Cleveland Cliffs) Agreement Act 1964*, Mineral Lease 248SA (AML 70/248)
**Local Government Area:** Shire of East Pilbara
**Colloquial name:** Angelo River Exploration

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|---|---|---|---|
| 7.6 | | Mechanical Removal | Mineral Exploration |

## 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 at a 1:250,000 scale for the whole of Western Australia and are useful to look at vegetation extent in a regional context. The following Beard Vegetation Associations are located within the application area (GIS Database):

18: Low woodland; mulga (*Acacia aneura*); and

29: Sparse low woodland; mulga, discontinuous in scattered groups.

A flora and vegetation survey of the application area was undertaken by a botanist from Rio Tinto in October and November 2009. The following five vegetation communities were identified within the application area (Rio Tinto, 2010):

<u>*Mulga flats*</u>

1. Abb: *Acacia* various *aneura* low closed forest over various bunch grasses, very open bunch grass over *Bidens bipinnata* scattered herbs;

<u>*Mulga on clay pans*</u>

*2.* AaApApElEbAc: *Acacia aneura tenuis, Acacia paraneura, Acacia pruinocarpa* low woodland over *Eremophila lanceolata* low open shrubland over *Eriachne benthamii* open tussock grassland over *Aristida contorta* open bunch grass.

3. AaPoTmAc: *Acacia* various *aneura* low open forest over *Ptilotus obovatus* low open shrubland over *Triodia melvillei* open hummock grassland over *Aristida contorta* open bunch grass;

4. *Acacia aneura* low open woodland over *Eremophila caespitose, Ptilotus obovatus* low shrubland over *Triodia pungens* very open hummock grassland over *Eriachne benthamii* very open tussock grassland over *Aristida contorta* open bunch grass; and

<u>*Vegetation from stony slopes*</u>

5. *Eucalyptus gamophylla* low open forest over *Acacia aneura* high open shrubland over *Acacia sibirica, Senna oligophylla* open shrubland over *Keraudrenia velutina, Ptilotus rotundifolius* low open shrubland over *Triodia pungens, Triodia basedowii* hummock grassland over *Paraneurachne muelleri* very open tussock grassland.

**Clearing Description**

Robe River has applied to clear up to 7.6 hectares within an application area of approximately 95.2 hectares (GIS Database). The application area is located approximately 95 kilometres west of Newman (GIS Database).

The purpose of the application is for mineral exploration. This includes the creation of 57 drill pads, 114 sumps, creating drill lines and access tracks and maintaining and established tracks (Rio Tinto, 2010). Clearing will be by mechanical means.

**Vegetation Condition**

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

to

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

**Comment**

The vegetation condition was assessed by a botanist from Rio Tinto. 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.

## 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). At a broad scale vegetation can be described as Mulga low woodland over bunch grasses on fine textured soils in valley floors, and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges (CALM, 2002).

A flora and vegetation survey was undertaken over the application and nearby area and identified five vegetation types ranging from 'excellent' to 'very good' (Rio Tinto, 2010). These vegetation communities are well represented within the Hamersley subregion (Rio Tinto, 2010).

A total of 182 flora species from 80 genera and 35 families were recorded during the larger flora survey (Rio Tinto, 2010). A nearby survey of a similar size recorded a similar range of species, suggesting these survey was in the expected range for this locality (Rio Tinto, 2010). Two species of Priority Flora were recorded from ten locations within the application area (Rio Tinto, 2010). Two weed species were also recorded within the application area; Bipinnate Beggartick (*Bidens bipinnata*) and Spiked Malvastrum (*Malvastrum americanum*).

There has been seven Western Pebble-mound Mouse (*Pseudomys chapmani* – DEC Priority 4 listing) mounds recorded within the application area (Rio Tinto, 2010). A search by the assessing officer of DEC's Naturemap revealed records of 1 amphibian, 5 bird, 21 mammal and 54 reptile species within a 20 kilometres radius (DEC, 2010). Based on this it appears the application may support a high number of reptile species. The fauna habitats within the application area are considered reasonably widespread and abundant in the Angelo River/Rhodes Ridge area (Rio Tinto, 2010).

The application area is not likely to have a greater diversity than nearby and similar areas within the bioregion.

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

**Methodology**

CALM (2002)
DEC (2010)
Rio Tinto (2010)
GIS Database
- IBRA WA (Regions – Sub Regions)

### (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 within the application area. A desktop search and general observations of the application area have been conducted by Rio Tinto (2010).

The fauna habitat of the application area has been described as being dominated by mulga plains and stony slopes (Rio Tinto, 2010). This vegetation may provide foraging and shelter opportunities for a variety of fauna species which feed on *Triodia* and *Acacia* species, while highly mobile species may temporarily utilise habitats within the application area (Rio Tinto, 2010). However, this habitat is well represented throughout the Angelo River/ Rhodes Ridge and West Angelas area, and given the lack of significant habitat features such as caves, waterholes, significant creek lines and gorges, the application area is not likely to represent significant habitat for native fauna (Rio Tinto, 2010).

The Western Pebble-mound Mouse (*Pseudomys chapmani*) (DEC Priority 4 listing) has been recorded within the application area (Rio Tinto, 2010). There has been seven Western Pebble-mound Mouse mounds recorded within the application area (Rio Tinto, 2010). This species is common to very common in the Pilbara where habitat of scree slopes and stony plains are present (Start et al., 2000). Similar habitat for the Western Pebble-mound Mouse is common throughout the Pilbara and given the relatively small area of the proposed clearing, the impact on this species is not likely to be significant.

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

**Methodology**

Rio Tinto (2010)
Start et al. (2000)

**(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 records of Declared Rare Flora (DRF) within the application area (GIS Database). Rio Tinto conducted a flora survey over the application area on 28, 29 October and 1 November 2009. No DRF was recorded within the application area (Rio Tinto, 2010).

Two species of Priority Flora were recorded within the application area:

- *Rhagodia sp. Hamersley* (Priority 3)
- *Triodia sp. Mt Ella* (Priority 3)

*Rhagodia sp. Hamersley* was recorded at nine locations within the application area (Rio Tinto, 2010). This species is not uncommon in Snakewood and Mulga vegetation in the Hamersley subregion, and is considered to have a wide distribution throughout the rest of the Pilbara (Rio Tinto, 2010; Pilbara Flora, 2009). The proposed clearing will not likely have a significant impact on this species.

*Triodia sp. Mt Ella* was recorded from one location within the application area (Rio Tinto, 2010). This resinous spinifex species is only known from a small area of the Hamersley Range in the vicinity of Mt Ella (Rio Tinto, 2010). This species has been recorded numerous times from stony hills habitat in the West Angelas area and the proposed clearing is not likely to have a significant impact. However, given the species is geographically restricted, the assessing officer recommends a condition be placed on the permit for the purpose of flora management.

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

**Methodology**

Pilbara Flora (2009)
Rio Tinto (2010)
GIS Database
- Declared Rare and Priority Flora List

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

**Comments**

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

According to available databases, there are no Threatened Ecological Communities (TEC's) within the application area (GIS Database). The vegetation survey did not identify any vegetation communities described as a TEC (Rio Tinto, 2010).

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

**Methodology**

Rio Tinto (2010)
GIS Database
- Threatened Ecological Sites
- Threatened Ecological Sites Buffered

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

**Comments**

**Proposal is not at variance to this Principle**

The application area falls within the Pilbara Biogeographic Regionalisation of Australia (IBRA) bioregion in which approximately 99.9% of the Pre-European vegetation remains (see table) (GIS Database, Shepherd, 2007).

The vegetation of the application area has been mapped as the following Beard Vegetation Associations:

18: Low woodland; mulga (*Acacia aneura*);

29: Sparse low woodland; mulga, discontinuous in scattered groups;

According to Shepherd (2007) approximately 100% of these Beard Vegetation Associations remains at both a state and bioregional level. Therefore the area proposed to be cleared does not represent a significant remnant of native vegetation within an area that has been extensively cleared.

While a small percentage of vegetation types within the Pilbara bioregion are protected within conservation reserves, the bioregion remains largely uncleared. As a result the conservation of vegetation associations within the bioregion is not likely to be impacted by this proposal.

| | Pre-European area (ha)* | Current extent (ha)* | Remaining %* | Conservation Status** | Pre-European % in IUCN Class I-IV Reserves (and post clearing %)* |
|---|---|---|---|---|---|
| IBRA Bioregion – Pilbara | 17,804,187 | 17,794,646 | ~99.9 | Least Concern | 6.3 (6.3) |
| Beard veg assoc. – State | | | | | |
| 18 | 19,892,305 | 19,890,195 | ~100 | Least Concern | 2.1 (2.1) |
| 29 | 7,903,991 | 7,903,991 | ~100 | Least Concern | 0.3 (0.3) |
| Beard veg assoc. – Bioregion | | | | | |
| 18 | 676,557 | 676,557 | ~100 | Least Concern | 16.8 (16.8) |
| 29 | 1,133,219 | 1,133,219 | ~100 | Least Concern | 1.9 (1.9) |

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

Options to select from: Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment 2002)

| | |
|---|---|
| Presumed extinct | Probably no longer present in the bioregion |
| Endangered | <10% of pre-European extent remains |
| Vulnerable | 10-30% of pre-European extent exists |
| Depleted | >30% and up to 50% of pre-European extent exists |
| Least concern | >50% pre-European extent exists and subject to little or no degradation over a majority of this area |

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

**Methodology** Department of Natural Resources and Environment (2002)
Shepherd (2007)
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 may be at variance to this Principle**
According to available databases, there are several minor non-perennial watercourses within the application area (GIS Database). The vegetation survey did not identify any vegetation types associated with a watercourse (Rio Tinto, 2010). These ephemeral watercourses are only likely to flow following significant rainfall events. Whilst some of these watercourses may be impacted, the proposed clearing is not expected to have a significant impact.

Based on the above the proposed clearing may be at variance to this Principle.

**Methodology** Rio Tinto (2010)
GIS Database
- Hydrography, linear

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

**Comments** **Proposal is not likely to be at variance to this Principle**
According to available databases, the application area is comprised of the Newman, Boolgeeda, Wannamunna and Pindering land systems (GIS Database). These land systems have low to no susceptibility to erosion (Van Vreeswyk et al., 2004).

At a broad scale the surface soil pH in the application area is 5.5 to 6.0 and there is no known occurrence of acid sulphate soils (CSIRO, 2009). The average annual evaporation rate is over 7 times the average annual rainfall, so it is unlikely the proposed clearing will result in increased groundwater recharge causing raised saline water tables (GIS Database).

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

**Methodology** CSIRO (2009)
Van Vreeswyk et al. (2004)
GIS Database
- Evaporation Isopleths
- Rainfall, Mean Annual
- 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**

According to available databases, the application area is not located within a conservation area or any DEC managed lands (GIS Database). The nearest conservation reserve is Karijini National Park located approximately 22 kilometres north-east of the application area (GIS Database). Based on the distance between the proposed clearing and the nearest conservation area, the project is not likely to impact the environmental values of any 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**

According to available databases, the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). There are no permanent waterbodies or watercourses within the application area (GIS Database).

Rainfall in the area can be either intense falls associated with cyclonic events or scattered falls associated with local thunderstorms (Van Vreeswyk et al., 2004). The average annual evaporation rate for the application area is 3,400 – 3,600 millimetres and the average annual rainfall is 400 - 500 millimetres (GIS Database). Therefore, during normal rainfall events surface water in the application area is likely to evaporate quickly. However, substantial rainfall events create surface sheet flow which is likely to have a higher level of sediments. During normal rainfall events, the proposed clearing would not likely lead to an increase in sedimentation of watercourses within the application area.

The groundwater salinity within the application area is between 500 – 1000 milligrams per litre of Total Dissolved Solids (TDS) (GIS Database). This is considered to be potable water. Given the small scale of the proposed clearing (7.6 hectares), it is not likely to cause salinity levels within the application area to alter (GIS Database).

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
- Evaporation Isopleths
- Groundwater Salinity, Statewide
- Public Drinking Water Source Areas (PDWSA's)
- Rainfall, Mean Annual

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

**Comments**

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

With an average annual rainfall of 400 – 500 millimetres and an average annual evaporation rate of between 3,400 – 3,600 millimetres there is likely to be little surface flow during normal seasonal rains (GIS Database). Given the likelihood of little surface flow, the proposed clearing of 7.6 hectares within a 95.2 hectares project area is not likely to cause or increase the incidence of flooding.

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

**Methodology** GIS Database
- Evaporation Isopleths
- Rainfall, Mean Annual

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

**Comments**

The clearing permit application was advertised by the Department of Mines and Petroleum on 22 February 2010,

inviting submissions from the public. There were no submissions received.

There is one native title claim over the area under application; WC97/043 (GIS Database). This claim has been registered with the National Native Title Tribunal. However, the mining tenement has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993.*

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

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

**Methodology** GIS Database
- Native Title Claims
- Sites of Aboriginal Significance

## 4. Assessor's comments

**Comment**

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

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

## 5. References


Commonwealth Scientific and Industrial Research Organisation (2009) Australian Soil Resource Information System. Available online at: http://www.asris.csiro.au/index_ie.html Accessed on 9 March 2010.

DEC (2010) NatureMap - Department of Environment and Conservation and Western Australian Museum. http://naturemap.dec.wa.gov.au/default.aspx Accessed 9 March 2010.

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

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

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

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Shepherd, D.P. (2007) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

Start, A.N., Anstee, S.D. & Endersby, M. (2000) 'A review of the biology and conservation status of the Ngadji, *Pseudomys chapmani* Kitchener, 1980 (Rodentia: Muridae)', CALMScience, vol. 3, no.2, pp.125-147.

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., Hennig, P. and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia. Department of Agriculture, Western Australia.

## 6. Glossary

### Acronyms:

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

### Definitions:

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

| | |
|---|---|
| **P1** | **Priority One - Poorly Known taxa**: taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey. |
| **P2** | **Priority Two - Poorly Known taxa**: taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey. |
| **P3** | **Priority Three - Poorly Known taxa**: taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey. |
| **P4** | **Priority Four – Rare taxa**: taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years. |
| **R** | **Declared Rare Flora – Extant taxa** *(= Threatened Flora = Endangered + Vulnerable)*: taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee. |
| **X** | **Declared Rare Flora - Presumed Extinct taxa**: taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee. |

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

| | |
|---|---|
| **Schedule 1** | **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection. |
| **Schedule 2** | **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection. |
| **Schedule 3** | **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection. |
| **Schedule 4** | **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3. |

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

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

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

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

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

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

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

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

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

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

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

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

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