



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 3891/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Australian Garnet Pty Ltd

### 1.3. Property details

Property: Mining Lease 70/1280  
Miscellaneous Licence 70/134  
Local Government Area: Shire of Northampton  
Colloquial name: Balline Garnet Mine

### 1.4. Application

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

## 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 and are useful to look at vegetation in a regional context. The following Beard Vegetation Association is located within the application area (GIS Database):</p> <p>17: Shrublands; <i>Acacia rostellifera</i> thicket.</p> <p>A vegetation survey of the application area was conducted in September 2008. The following six vegetation communities were identified:</p> <p>1. TOSSAr: Tall Open Scrub <i>Acacia rostellifera</i> to 5 metres in height over mixed Open Shrubland of <i>Alyogyne hakeifolia</i>, <i>Phyllanthus calycinus</i> and <i>Diplopeltis petiolaris</i> to 1.5 metres in height;</p> <p>2. CHMC: Closed Heath <i>Melaleuca cardiophylla</i> to 1.5 metres in height over scattered <i>Pimelea microcephala</i> dominated Low Open Shrubland to 0.6 metres in height;</p> <p>3. TCSAr: Tall Closed Scrub <i>Acacia rostellifera</i> to 6 metres in height over scattered <i>Alyogyne hakeifolia</i>, <i>Phyllanthus calycinus</i> and <i>Pimelea microcephala</i> to 1.5 metres in height;</p> <p>4. OsTbDpAr: Open Shrubland of <i>Thryptomene baeckeacea</i>, <i>Diplopeltis petiolaris</i> and <i>Acacia rostellifera</i> to 2 metres in height over <i>Avena fatua</i> dominated grassland;</p> <p>5. TOTCSAR: Tall Open to Tall Closed Scrub <i>Acacia rostellifera</i> to 5 metres, over an Open Shrubland of</p>	<p>Australian Garnet Pty Ltd has applied to clear up to 90 hectares within an application area of approximately 144.4 hectares (GIS Database). The application area is located approximately 18 kilometres north of Gregory (GIS Database).</p> <p>The application is for the construction of the Balline Garnet Mine. The project includes an open cut pit, a wet gravity separation plant and a dry processing plant (Environ Australia, 2010). Clearing will be by mechanical means.</p>	<p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).</p> <p>to</p> <p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).</p>	<p>The vegetation condition was assessed by a botanist from Ecoscape (2009).</p> <p>Parts of the application area are used for agriculture and contain no native vegetation.</p>

*Pimelea microcephala* to 2 metres over *Brassica napus* and *Avena fatua* Grassland; and

6. TSA: Tall Shrubland *Acacia rostellifera* to 4 metres in height over *Avena fatua* dominated 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 Geraldton Hills subregion of the Geraldton Sandplains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). At a broad scale vegetation can be described as sand heaths with emergent *Banksia* and *Actinostrobus*, York Gum woodlands on limestones depending on depth of coastal-sand mantle, low closed forest of *Acacia rostellifera* (now cleared) on alluvial plains of Greenough and Irwin River (behind beach dune system south of Geraldton) (CALM, 2002).

There has been six different vegetation communities recorded within the application area ranging from 'very good' to 'degraded' (Environ Australia, 2010). The majority of the application area was in 'degraded – good' condition due to disturbances from cropping and grazing activities (Environ Australia, 2010).

A total of 57 flora species have been recorded within the application area (Environ Australia, 2010). Of these nine were non-native species (Environ Australia, 2010). No Declared Rare or Priority Flora has been recorded within the application area (Environ Australia, 2010).

Given the impacts of agricultural activities, the application area is not likely to support large numbers of fauna species. However, it may form part of an ecological linkage with other remnants that may persist as important fauna habitats and refuges (DEC, 2010).

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

**Methodology**      CALM (2002)  
DEC (2010)  
Environ Australia (2010)  
GIS Database:  
- IBRA WA (Regions – Subregions)

#### (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 may be at variance to this Principle**

A Level 1 fauna survey was conducted over the application area by Ecoscape on 27 September 2008. The field survey identified the following broad habitat types within the application area (Ecoscape, 2009):

- *Acacia rostellifera* Scrub; and
- *Melaleuca cardiophylla* Heath.

A search of the DEC Threatened and Priority Fauna database revealed 10 species of conservation significance that have been recorded within 30 kilometres of the application area (Ecoscape, 2009). Whilst some of the species may utilise the application area, it is not likely to represent significant habitat for conservation significant fauna (Ecoscape, 2009).

There is the potential that the application area may provide an ecological linkage. Most of the surrounding area and parts of the application area have been cleared and degraded as a result of cropping and grazing activities. This has resulted in the local vegetation being fragmented into remnants. The application area forms part of a larger remnant of vegetation. Whilst the proposed clearing will not remove the entire remnant, it will result in the clearing of the majority resulting in further fragmentation and increased edge effects on the remaining vegetation. The proposed clearing of 90 hectares of vegetation may result in the disruption of fauna corridors in the local area (DEC, 2010).

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

**Methodology**      DEC (2010)  
Ecoscape (2009)

#### (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. There is a record of a DRF species; *Caladenia bryceana* subsp. *cracens* approximately 11

kilometres north of the application area (GIS Database). South of Kalbarri it is usually found in low heath on limestone hills (Western Australia Herbarium, 2010). It is not likely that suitable habitat exists for conservation significant flora known from the local area (DEC, 2010). A Level 1 flora survey of the application area was conducted by Ecoscape on 27 September 2008. This survey did not record any species listed as DRF (Environ Australia, 2010).

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

**Methodology** DEC (2010)  
Environ Australia (2010)  
Western Australian Herbarium (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 records of Threatened Ecological Communities (TEC's) within the application area (GIS Database). A Level 1 survey of the application area was conducted by Ecoscape on 27 September 2008. This survey did not identify any vegetation communities listed as a TEC (Environ Australia, 2010).

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

**Methodology** Environ Australia (2010)  
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 at variance to this Principle**

The application area falls within the Geraldton Sandplains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). According to Shepherd (2007) there is approximately 42.8% of the pre-European vegetation remaining in the Geraldton Sandplains bioregion which places it as 'depleted' according to the 'Biological Conservation Status of Ecological Vegetation Classes' (Department of Natural Resources and Environment, 2002). This is more than the 30% threshold recommended in the National Objectives Targets for Biodiversity Conservation below which, species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000).

The application falls within the Shire of Northampton (GIS Database). The Shire of Northampton is within the Intensive Land Use Zone of the south-west of Western Australia which has been extensively cleared for agriculture. However, approximately 76.2% of native vegetation still remains within the Shire (Shepherd, 2007). This places the Shire at 'Least Concern' according to the Bioregional Conservation Status of Ecological Vegetation Classes' (Department of Natural Resources and Environment, 2002).

The vegetation of the application area has been mapped as Beard Vegetation Association 17: Shrublands; *Acacia rostellifera* thicket.

According to Shepherd (2007) approximately 88.1% of this Beard Vegetation Association remains at a state level, 83.4% at a bioregional level and 84.1% at a subregional level. Whilst the majority of this Beard Vegetation Association remains uncleared, the local area has had large areas cleared for agriculture. Much of the area surrounding the application area has been cleared for agriculture and it forms part of a local remnant (GIS Database). The vegetation of the application area may provide corridors for fauna movement and linkages with other remnants that may persist as important fauna habitat (DEC, 2010). The majority of the application area is considered to be in a 'degraded - good' condition (Environ Australia, 2010). However, the clearing of 90 hectares will result in further fragmentation of this remnant and may impact the ability of the remaining vegetation to act as a viable remnant.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves (and post clearing %)*
IBRA Bioregion – Geraldton Sandplains	3,136,024	1,341,266	~42.77	Depleted	15.35 (35.58)
IBRA Subregion – Geraldton Hills	1,964,255	845,822	~43.06	Depleted	13.89 (32.15)
Local Government – Northampton	1,258,676	909,535	~72.26	Least Concern	14.66 (20.26)
Beard veg assoc. – State					
17	76,634	67,552	~88.1	Least Concern	7.5 (8.5)
Beard veg assoc. – Bioregion					
17	54,077	45,107	~83.4	Least Concern	10.7 (12.7)
Beard veg assoc. – Subregion					
17	49,604	41,720	~84.1	Least Concern	10.6 (12.6)

\* 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 at variance to this Principle.

**Methodology** DEC (2010)  
 Department of Natural Resources and Environment (2002)  
 Environ Australia (2010)  
 Shepherd (2007)  
 GIS Database:  
 - Hutt 50 cm Orthomosaic – Landgate 2006  
 - IBRA WA (Regions – Sub Regions)  
 - Local Government Authorities  
 - 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 or wetlands within the application area (GIS Database). There is a low surface runoff due to the high infiltration rates associated with the sand and sandy soils present within the application area (Environ Australia, 2010).

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

**Methodology** Environ Australia (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 may be at variance to this Principle**  
 The application is located on the Tamala Limestone Unit which overlies the Tumblagooda Sandstone Unit of the Perth Basin (Playford et al., 1976). The landforms of the application area are part of the Tamala North 1 subsystem, which is described as undulating rises and swales associated with coastal parabolic dunes, featuring some limestone outcrop (DAFWA, 2010).

The soils of the application area have been broadly described as being calcareous deep sands (DAFWA, 2010). The sandy soils present throughout the application area are internally draining with no clearly defined drainage lines (Environ Australia, 2010). A limestone ridge area in the north-east of the application area may generate higher runoff rates than the surrounding areas (Environ Australia, 2010). However, the proposed clearing is not expected to contribute to water erosion as the sandy soils facilitate high infiltration rates.

At a broad scale the surface soil within the application area has a pH of 7.0 - 7.5 and there is no known occurrence of acid sulphate soils (CSIRO, 2009). As the application area is already within a predominantly cleared agricultural landscape, it is not likely that the proposed clearing will contribute to a rise in groundwater table and salinity (DAFWA, 2010).

The sandy soils of the application area may be at risk of wind erosion if left cleared (DAFWA, 2010).

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

**Methodology** CSIRO (2009)  
DAFWA (2010)  
Environ Australia (2010)  
Playford et al. (1976)

**(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 may be at variance to this Principle**

The application area is not located within any conservation area or DEC managed lands (GIS Database). The nearest conservation area is the Utcha Well Nature Reserve located approximately 2.7 kilometres south of the application area (GIS Database). Most of the separating area has been cleared for agriculture and has resulted in the fragmentation of habitat between the application area and the nature reserve (GIS Database). Whilst highly mobile species such as birds may not be disrupted, the proposed clearing may disrupt some ecological linkages to the Utcha Well Nature Reserve.

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

**Methodology** GIS Database:  
- DEC Tenure  
- Hutt 50 cm Orthomosaic – Landgate 2006

**(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).

There are no watercourses or wetlands within the application area (GIS Database). The average rainfall for Kalbarri (approximately 35 kilometres north) is 350 millimetres and the average annual evaporation rate is 2,600 millimetres (BoM, 2010; GIS Database). The soils within the application area have a high infiltration rate so there is likely to be little surface runoff into lower lying areas west of the application area (Environ Australia, 2010).

The groundwater of the application area is considered to be fresh to brackish (Environ Australia, 2010). No fresh water lenses are evident at the top of the water table, suggesting rainfall recharge rates are low (Environ Australia, 2010).

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

**Methodology** BoM (2010)  
Environ Australia (2010)  
GIS Database  
- Evaporation Isopleths  
- 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 soils of the application area facilitate high infiltration rates with little surface runoff (Environ Australia, 2010). The annual evaporation rate is over seven times the annual average annual rainfall (BoM, 2010; GIS Database). Despite the application area being on a sloping sandplain, there is likely to be little surface water runoff. The proposed clearing is not likely to cause an increase in flooding to areas subject to inundation west of the application area.

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

**Methodology** BoM (2010)  
Environ Australia (2010)  
GIS Database:  
- Evaporation Isopleths

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

##### **Comments**

There is one native title claim over the area under application; WC00/001 (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*.

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.

The clearing permit application was advertised by the Department of Mines and Petroleum on 23 August 2010 inviting submissions from the public. There was one submission received stating no objection to the proposed clearing.

**Methodology** GIS Database:  
- Native Title NNTT  
- Sites of Aboriginal Significance

#### **4. References**

- Bureau of Meteorology (2010) BOM Website - Climate Averages by Number, Averages for Kalbarri. Available online at: [http://www.bom.gov.au/climate/averages/tables/cw\\_008251.shtml](http://www.bom.gov.au/climate/averages/tables/cw_008251.shtml) Accessed on 26 October 2010.
- Commonwealth Scientific and Industrial Research Organisation (2009) Australian Soil Resource Information System. Available online at: [http://www.asris.csiro.au/index\\_ie.html](http://www.asris.csiro.au/index_ie.html) Accessed on 11 November 2010.
- DAFWA (2010) Land Degradation Advice. Advice to assessing officer, Native Vegetation Assessment Branch, Department of Mines and Petroleum. Received 10 March 2010. Department of Agriculture and Food, Western Australia.
- DEC (2010) Advice for clearing permit application. Advice to assessing officer, Native Vegetation Assessment Branch, Department of Mines and Petroleum, received 17 September 2010. Department of Environment and Conservation, Western Australia.
- 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.
- Ecoscope (2009) Haddinton Resources Balline - Level 1 Flora and Fauna Assessment. Unpublished report for Environ Pty Ltd dated April 2009.
- Environ Australia (2010) Supporting Information for the Clearing Permit Application for the Balline Resources Garnet Mine M70/1280, L70/134. Unpublished report for Australian Garnet Pty Ltd dated August 2010.
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Playford, P.E., Cockbain, A.E. and Low, G.H. (1976) Geology of the Perth Basin, Western Australia. Bulletin 124, Geological Survey of Western Australia.
- 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.
- Western Australian Herbarium (2010) Florabase - The Western Australian Flora. Department of Environment and Conservation. Available online at <http://florabase.dec.wa.gov.au/> Accessed on 26 October 2010.

## 5. Glossary

### Acronyms:

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