



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4249/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **BHP Billiton Iron Ore Pty Ltd**

1.3. Property details

Property: *Iron Ore (Mount Goldsworthy) Agreement Act 1964*, Special Lease for Mining Operations 3116/5661 (I 123405L), Lot 44 on Deposited Plan 193616
Local Government Area: Shire of East Pilbara
Colloquial name: Shay Gap Aerodrome Expansion

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
20		Mechanical Removal	Upgrade of airstrip and installation of associated infrastructure

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 21 April 2011

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>Beard vegetation associations have been mapped at a 1:250,000 scale for the whole of Western Australia. One Beard vegetation association has been mapped within the application area (GIS Database).</p> <p>117: Hummock grasslands, grass steppe; soft spinifex.</p> <p>An Onshore Environmental botanist conducted a flora and vegetation survey of the application area in September 2010. Vegetation mapping was based on a variety of topographic, vegetation and land system maps, ground truthing and the results of the field survey (Onshore Environmental, 2010).</p> <p>Eight vegetation associations were described and these were classified into five broad floristic formations:</p> <p>1. Acacia low open heath (regrowth): Low open heath of <i>Acacia tumida</i> var. <i>pilbarensis</i> (regrowth), <i>Bonamia rosea</i> and <i>Senna notabilis</i> over very open tussock grassland of <i>Aristida holathera</i> and <i>Chrysopogon fallax</i>;</p> <p>2a. Acacia low scattered shrubs: Low scattered shrubs of <i>Acacia bivenosa</i> over open hummock grassland of <i>Triodia epactia</i>;</p> <p>2b. Acacia low scattered shrubs: Low scattered shrubs of <i>Bonamia rosea</i> and <i>Acacia tumida</i> var. <i>pilbarensis</i> over scattered tussock grasses of <i>Aristida holathera</i>, <i>Aristida inaequiglumis</i> and <i>Eriachne aristidea</i> over scattered hummock grasses of <i>Triodia epactia</i>;</p> <p>3. Triodia closed hummock grassland: Closed hummock grassland of <i>Triodia epactia</i> over</p>	<p>BHP Billiton Iron Ore Pty Ltd (BHPBIO) has applied to clear up to 20 hectares of native vegetation within an application area of 61.4 hectares for the purpose of upgrading an airstrip and installation of associated infrastructure. Clearing is to allow for the extending, modifying and sealing of the existing gravel airstrip, and providing terminal facilities to meet security requirements and industry best practice. The Shay Gap Aerodrome services BHPBIO's Goldsworthy mining operations and is located approximately 160 kilometres east of Port Hedland.</p> <p>Vegetation will be cleared using earthmoving equipment. The vegetation and topsoil will be stockpiled and used in rehabilitation activities.</p>	<p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).</p> <p>To</p> <p>Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).</p>	<p>The vegetation condition was assessed by a botanist from Onshore Environmental (2010).</p>

scattered climbers of *Cassytha capillaris*;

4a. Triodia hummock grassland: Hummock grassland of *Triodia epactia* with low shrubland of *Acacia hilliana* over scattered climbers of *Cassytha capillaris*;

4b. Triodia hummock grassland: Hummock grassland of *Triodia epactia* with low shrubland of *Acacia tumida* var. *pilbarensis*, *Acacia ancistrocarpa* and *Bonamia rosea* with low open woodland of *Corymbia zygophylla* and *Erythrophleum chlorostachys*;

4c. Triodia hummock grassland: Hummock grassland of *Triodia epactia* with low open shrubland of *Acacia tumida* var. *pilbarensis*, *Acacia ancistrocarpa* and *Bonamia rosea* with scattered trees of *Corymbia zygophylla*; and

5. Tracks: No vegetation.

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 McLarty subregion of the Great Sandy Desert Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is mainly tree steppe grading to shrub steppe in the south. It comprises of open hummock grassland of *Triodia pungens* and *Triodia schinzii* with scattered trees of *Owenia reticulata* and Bloodwoods, and shrubs of *Acacia* spp., *Grevillea wickhamii* and *Grevillea refracta*, on Quaternary red longitudinal sand dune fields overlying Jurassic and Cretaceous sandstones of the Canning and Armadeus Basins (CALM, 2002). *Casuarina decaisneana* (Desert Oak) occurs in the far east of the region. Gently undulating lateritised uplands support shrub steppe such as *Acacia pachycarpa* shrublands over *Triodia pungens* hummock grass (CALM, 2002).

The vegetation within the application area is broadly mapped as Beard vegetation association 117, which is common within the Great Sandy Desert bioregion and has approximately 99.99% of the pre-European vegetation extent remaining (Shepherd, 2009; GIS Database). A flora and vegetation survey conducted in September 2010 recorded 66 native plant taxa from 44 genera belonging to 23 families (Onshore Environmental, 2010). Species representation was greatest amongst the Fabaceae, Poaceae, Malvaceae and Amaranthaceae families, which is typical for the region (Onshore Environmental, 2010). No introduced flora was recorded from the application area (Onshore Environmental, 2010).

No Declared Rare Flora, Priority Flora, Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) have been identified within the application area (Onshore Environmental, 2010; GIS Database).

The fauna habitat within the application area consists of sandy plains with occasional stoney areas (Onshore Environmental, 2010). This habitat type is common in the local area and the quality of the habitat is fairly degraded due to nearby mining operations and frequent fire regimes (Onshore Environmental, 2010).

The application area contains the existing airstrip and tracks which have previously been cleared, with the surrounding vegetation being in degraded to excellent condition (Onshore Environmental, 2010). The vegetation associations and habitat types found in the application area are well represented locally and regionally (BHPBIO, 2011). The application area is not likely to comprise a high level of biological diversity.

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

Methodology

BHPBIO (2011)
CALM (2002)
Onshore Environmental (2010)
Shepherd (2009)
GIS Database:
- Declared Rare and Priority Flora List
- IBRA WA (Regions - Subregions)
- 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 Level 1 fauna survey was undertaken over the application area which included a desktop review and a field survey by a Biologic Environmental Science zoologist (Onshore Environmental, 2010). The field survey was undertaken in September 2010 and involved a fauna habitat assessment, targeted transects to determine the presence of conservation significant fauna, targeted bird and bat searches and opportunistic sightings of all vertebrate fauna species (Onshore Environmental, 2010).

The fauna habitat within the application area consists of sandy plains with occasional stoney areas (Onshore Environmental, 2010). This habitat type is common in the local area and the quality of the habitat is fairly degraded due to nearby mining operations and frequent fire regimes (Onshore Environmental, 2010). The vegetation within the application area would be utilised by a variety of fauna but the extent of similar habitat outside the application area means it is unlikely to provide core habitat for any fauna species.

During the survey four reptile, six bird and five mammal species were recorded, with four of the mammal species being introduced (Onshore Environmental, 2010). The introduced species were the Camel (*Camelus dromedarius*), Cat (*Felis catus*), Cow (*Bos taurus*) and Wild Dog (*Canis lupus*) (Onshore Environmental, 2010).

No threatened or priority listed fauna species were identified within the application area but a possible burrow of Brush-tailed Mulgara (*Dasyercus blythi*) or Crest-tailed Mulgara (*Dasyercus cristicauda*) was recorded during the survey (Onshore Environmental, 2010). The possible burrow of *Dasyercus* sp. was too old and decayed to allow for positive identification and the application area and adjacent good quality habitat were searched for active burrows but none were found (Onshore Environmental, 2010). There is extensive Mulgara habitat outside of the application area (Onshore Environmental, 2010) and the proposed clearing of 20 hectares of previously utilised habitat, adjacent to the existing aerodrome, is unlikely to affect the conservation status of either Mulgara species.

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

Methodology Onshore Environmental (2010)

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

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

According to available databases there are no known records of Declared Rare Flora (DRF) within the application area (GIS Database).

A flora and vegetation survey of the application area was conducted by an Onshore Environmental botanist in September 2010. No DRF species were recorded within the application area (Onshore Environmental, 2010).

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

Methodology Onshore Environmental (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

A search of available databases revealed there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest recorded TEC is located 140 kilometres north-east of the application area (GIS Database).

No TECs were identified during the flora and vegetation survey by the Onshore Environmental botanist (Onshore Environmental, 2010).

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

Methodology Onshore Environmental (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 not at variance to this Principle

The clearing application area falls within the Great Sandy Desert Interim Biogeographic Regionalisation for Australia (IBRA) bioregion in which approximately 100% of the pre-European vegetation remains (see table)

(Shepherd, 2009; GIS Database). This gives it a conservation status of "Least Concern" according to the Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment, 2002).

The vegetation of the clearing application area has been broadly mapped as Beard vegetation association 117 "Hummock grasslands, grass steppe; soft spinifex" (GIS Database). According to Shepherd (2009) approximately 94.76% of Beard vegetation association 117 remains at the state level and 99.99% remains at a bioregion level. This vegetation association would be given a conservation status of "Least Concern" at both a state and bioregional level (Department of Natural Resources and Environment, 2002).

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

	Pre-European Area (ha)*	Current Extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion – Great Sandy Desert	29,538,795	29,537,848	~100	Least Concern	2.67
Beard Veg Assoc. – State					
117	919,161	871,011	~94.76	Least Concern	12.94
Beard Veg Assoc. – Bioregion					
117	467,579	467,533	~99.99	Least Concern	0.19

* Shepherd (2009)

** Department of Natural Resources and Environment (2002)

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

Methodology Department of Natural Resources and Environment (2002)
Shepherd (2009)
GIS Database:
- IBRA WA (Regions - Subregions)
- Pre-European Vegetation

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

Comments **Proposal is not likely to be at variance to this Principle**
According to available databases, there are no watercourses or wetlands within the application area (GIS Database). The vegetation within the application area is not considered to be growing in association with any watercourse or wetland.

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

Methodology GIS Database:
- Geodata, Lakes
- Hydrography, Linear

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

Comments **Proposal is not likely to be at variance to this Principle**
According to available datasets the application area is within the Nita Land System (GIS Database). The Nita Land System is characterised by sandplains supporting shrubby soft spinifex grasslands with occasional trees (Van Vreeswyk et al., 2004). This land system has very low occurrences of erosion (Van Vreeswyk et al., 2004).

All clearing activities will be managed in accordance with the *Goldsworthy Extension Project Environmental Management Plan* (BHPBIO, 2011). Soil management practices are in place to minimise disturbance and reduce the potential for erosion (BHPBIO, 2007).

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

Methodology BHPBIO (2007)
BHPBIO (2011)
Van Vreeswyk et al. (2004)
GIS Database:
- Rangeland Land System Mapping

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

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

The proposed clearing is not located within a conservation reserve (GIS Database). The nearest conservation area is Eighty Mile Beach, which is located 55 kilometres north of the application area (GIS Database). Eighty Mile Beach is an important feeding and nesting site for migratory birds (Australian Heritage Database, 2011). Given the different habitat types and the large distance separating the locations, the application area would not provide an important ecological linkage.

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

Methodology Australian Heritage Database (2011)
GIS Database:
- DEC Tenure
- Register of National Estate (Status)

(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). The nearest PDWSA is De Grey River Water Reserve, which is approximately 40 kilometres west of the application area (GIS Database). The small area of the proposed clearing is unlikely to cause deterioration in the quality of underground water.

There are no creeklines, wetlands or watercourses within the application area (GIS Database). All clearing activities will be managed in accordance with the *Goldsworthy Extension Project Environmental Management Plan* and appropriate surface water management practices will be implemented to minimise erosion and potential impacts on surface water quality (BHPBIO, 2011). The proposed clearing is unlikely to cause deterioration in the quality of surface water in the local area.

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

Methodology BHPBIO (2011)
GIS Database:
- Hydrography, Linear
- Public Drinking Water Source Areas (PDWSAs)

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

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

The application area experiences a variable annual rainfall with most precipitation occurring during the summer months (CALM, 2002; BHPBIO, 2011). The average annual rainfall is 385 mm at Pardoo Station, the closest meteorological station located approximately 67 kilometres north-west of the application area (BoM, 2011). Local flooding occurs after intense seasonal rainfall events, however, clearing within the application area is not likely to exacerbate or increase the incidence or intensity of flooding (BHPBIO, 2011).

The application area is located within the Lake Dora catchment area of the Sandy Desert basin (GIS Database). Given the size of the area to be cleared (20 hectares) in relation to the size of the catchment area (29,276,950 hectares) (GIS Database), the proposed clearing is not likely to increase the potential of flooding on a local or catchment scale.

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

Methodology BHPBIO (2011)
BoM (2011)
CALM (2002)
GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There is one Native Title Claim (WC99/8) over the area under application (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

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

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

The clearing permit application was advertised on 14 March 2011 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology GIS Database:

- Aboriginal Sites of Significance
- Native Title Claims - Registered with the NNTT

4. References

- Australian Heritage Database (2011) Department of Sustainability, Environment, Water, Population and Communities. <http://www.environment.gov.au/heritage/index.html> (Accessed 12 April 2011).
- BHPBIO (2007) Goldsworthy Extension Project Environmental Management Plan. Report Prepared by BHP Billiton Iron Ore, April 2007.
- BHPBIO (2011) Shay Gap Aerodrome Expansion: Application for a Native Vegetation Clearing Permit Under the *Environmental Protection Act 1986*. Unpublished Report Prepared by BHP Billiton Iron Ore, February 2011.
- BoM (2011) Bureau of Meteorology Website - Climate Statistics for Australian Locations, Summary Statistics PARDOO STATION. <http://www.bom.gov.au> (Accessed 13 April 2011).
- 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.
- Onshore Environmental (2010) Level 2 Flora and Vegetation Survey and Level 1 Fauna Survey, Shay Gap Aerodrome, Yarrle Area A, Yarrle Area B. Report Prepared by Onshore Environmental and Biologic Environmental Survey, November 2010.
- Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Van Vreeswyk A.M.E., Payne A.L., Leighton K.A. and Hennig P. (2004) Technical Bulletin - An Inventory and Condition Survey of the Pilbara Region, Western Australia, No. 92, Department of Agriculture, Perth, Western Australia.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia

DoW	Department of Water
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

Definitions:

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

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

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

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

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

- P1** **Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2** **Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3** **Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4** **Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need

of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.

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

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

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

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

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

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

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

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