Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3866/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Crescent Gold Limited**

1.3. Property details

Property: Mining Lease 38/270
Local Government Area: Shire of Laverton
Colloquial name: Mary Mac Hill Gold Deposit

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
64.5		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

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; Shepherd, 2007).

18: Low woodland; mulga (*Acacia aneura*) (GIS Database; Shepherd, 2007).

The application area was surveyed by Western Botanical staff on the 21-23 July 2007 (Western Botanical, 2007). The following vegetation types were identified within the application area;

Rocky Slopes

Banded Ironstone Formation (BIF): *Acacia aneura, Acacia quadrimarginea, Acacia tetragonophylla* open scrub over open low scrub of *Eremophila latrobei* subsp. *brucei, Hibiscus gardneri* over *Cheilanthes sieberi* subsp. *sieberi, Isotoma petraea, Ptilotus helipteroides* var. *helipteroides* very open herbs and *Eriachne mucronata, Enneapogon caerulescens, Cymbopogon ambiguus* very open grasses;

Stony Ironstone Mulga Shrub lands (SIMS): *Acacia aneura, Acacia ramulosa* var. r*amulosa, Acacia* spp. aff. *quadrimargine*a scrub over *Eremophila forrestii* subsp. *forrestii, Scaevola spinescens* (narrow leaf form), *Senna artemisioides* subsp. *helmsii, Senna artemisioides* subsp. *filifolia* low scrub;

Plains

Lateritic Hardpan Mulga Shrub land (LHMS): *Acacia aneura, Acacia ramulosa* var. ramulosa scrub over *Ptilotus obovatus, Ptilotus schwartzii* var. *schwartzii, Solanum lasiophyllum* open dwarf scrub over *Eragrostis eriopoda* open grass; and

Disturbed (Western Botanical, 2007).

Three species of introduced flora were recorded within the application area: Pepper Tree (*Schinus molle*), Wild Watermelon (*Citrullus lanatus*) and Gooseberry Gourd (*Cucumis myriocarpus*) (Western Botanical, 2007).

Clearing Description

Crescent Gold Limited is proposing to clear up to 64.5 hectares of native vegetation within an area of approximately 180.5 hectares to develop an open cut pit and waste landform at the Mary Mac Hill Gold Deposit (Crescent Gold Limited, 2010). This development will include an open pit mine, ROM, waste rock landform and haul roads (Crescent Gold Limited, 2010).The mining at Mary Mac Hill will be undertaken using conventional open cut drill and blast methods (Crescent Gold Limited, 2010). Vegetation will be cleared by a bulldozer or other heavy plant equipment. Cleared vegetation and topsoil will be stockpiled for use in rehabilitation.

Vegetation Condition

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994)

To

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).

Comment

The application area is located in the Goldfields region, approximately 1.4 kilometres south-west of Laverton (GIS Database). The vegetation condition was derived from a vegetation survey conducted by Western Botanical (2007).

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 East Murchison (MUR1) subregion of the Murchison Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by internal drainage, and extensive areas of elevated red desert sand plains with minimal dune development (CALM, 2002). It contains salt-lake systems associated with the occluded Paleodrainage system (CALM, 2002). This subregion has broad plains of red-brown soils and breakaway complexes as well as red sand plains (CALM, 2002). The vegetation is dominated by Mulga woodlands often rich in ephemerals, hummock grasslands, saltbush shrublands and *Halosarcia* shrublands (CALM, 2002).

The vegetation within the application area consists of Beard vegetation association 18 which is common and widespread throughout the Goldfields region, with approximately 100% of the pre-European vegetation extent remaining (Shepherd, 2007; GIS Database). Western Botanical (2007) recorded 109 flora species from 53 genera and 33 families during the vegetation survey of the application and surrounding areas. The flora found in the application area is typical of the Laverton area (Western Botanical, 2007). The application area lies adjacent to the existing Mary Mac South operation with a large portion of the application area having been heavily disturbed.

Whilst there are no Threatened Ecological Communities (TECs) within the East Murchison subregion, eighteen ecosystems that are classified as 'other ecosystems at risk' have been identified (CALM, 2002). The application area intersects a 10 kilometre buffer zone around the Priority Ecological Community (PEC), 'Mount Jumbo Range vegetation complex, Laverton area, northeast Goldfields' (CALM, 2002; GIS Database). This PEC has been given a status of vulnerable, with threatening processes being listed as grazing pressure, feral animals (goats and rabbits) and changed fire regimes (CALM, 2002). The vegetation types according to the National Vegetation Inventory System (NVIS), listed as occurring in this area are mixed species arid *Acacia* woodlands and shrublands. The Mount Jumbo Range Vegetation Complex is listed as being in good condition although vulnerable (CALM, 2002). As the application area occurs on the margins of the buffer zone of this PEC and the processes threatening it are described as "grazing pressure, feral animals and changed fire regimes" (CALM, 2002), it is not likely that there will be a significant impact on the PEC from the proposed clearing.

Three alien weed species were recorded within the vegetation survey area (Western Botanical, 2007). These were: *Schinus molle* (Pepper Tree), *Citrullus lanatus* (Pie Melon) and *Cucumis myriocarpus* (Prickly Paddy Melon) (Western Botanical, 2007). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. This in turn can lead to greater rates of infestation and further loss of biodiversity if the area is subject to repeated fires. None of these species are listed as 'Declared Plant' species under the *Agriculture and Related Resources Protection Act 1976* by the Department of Agriculture and Food. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The application area lies adjacent to the existing Mary Mac South operation with a large portion of the application area having been heavily disturbed (J & J Tucker Environmental Solutions, 2008). Therefore, the application area has previously been affected by the construction and operation of infrastructure associated with existing operations.

Parts of the application area have been degraded by previous disturbance from mining and pastoral activities. The landforms, vegetation types and fauna habitats in the application area are well represented in the Murchison Region (J & J Tucker Environmental Solutions, 2008; GIS Database). It is not likely that the application area comprises a higher level of biological diversity than other undisturbed areas within the sub-region.

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

Methodology

CALM (2002)
J & J Tucker Environmental Solutions (2008)
Shepherd (2007)
Western Botanical (2007)
GIS Database
- 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

According to Shepherd (2007) approximately 100% of the pre-European vegetation remains within the Murchison bioregion. Given the extent of native vegetation remaining in the local area and bioregion, the vegetation to be cleared does not represent a significant ecological linkage.

Western Botanical (2007) recorded four broad habitat types as occurring within the application area:
BIF: Banded Ironstone Formation;
SIMS: Stony Ironstone Mulga Shrublands;
LHMS: Lateritic Hardpan Mulga Shrublands; and
DIST: Disturbed areas (Western Botanical, 2007).

Coffey Environments (2008) conducted a fauna survey of the application area in May 2008. It was observed that mulga woodland on a rocky-clay substrate is the dominant vegetation type within the application area (Coffey Environments, 2008). The vegetation type described by Coffey Environments (2008) is well represented throughout the Laverton region and the application area is extensively disturbed due to historical mining activities.

All vertebrate species that are likely to occur within the application area are wide-ranging and are unlikely to be impacted on a regional level (Coffey Environments, 2008).

The proposed clearing is unlikely to result in a significant impact on fauna or the availability of fauna habitat in the local or regional area.

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

Methodology

Coffey Environments (2008)
Shepherd (2007)
Western Botanical (2007)

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

A flora survey was conducted over the application area by staff from Western Botanical on 21-23 July 2007 (Western Botanical, 2007). No DRF species were recorded within the application area (Western Botanical, 2007).

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

Methodology

Western Botanical (2007)
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 reveals that there are no Threatened Ecological Communities (TECs) within the application area (GIS Database). There are no TECs within a 100 kilometre radius of the application area (GIS Database).

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

Methodology

GIS Database
- Threatened Ecological Sites Buffered

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

Comments

Proposal is not at variance to this Principle

The application falls within the Murchison IBRA bioregion (GIS Database). Shepherd (2007) reports that approximately 100% of the pre-European vegetation remains in this bioregion.

The vegetation within the application area is recorded as Beard vegetation association:
18: Low woodland; mulga (*Acacia aneura*) (GIS Database; Shepherd, 2007).

According to Shepherd (2007) approximately 100% of this Beard vegetation association remains within the Murchison bioregion (see table below).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Murchison	28,120,590	28,120,590	~100%	Least Concern	~1.06%
IBRA Subregion - East Murchison	21,135,084	21,135,084	~100%	Least Concern	~1.39%
Beard vegetation associations - State					
18	19,892,305	19,890,195	~100%	Least Concern	~2.1%
Beard vegetation associations - Bioregion					
18	12,403,172	12,403,172	~100%	Least Concern	~0.37%

* Shepherd (2007)
** 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 (2007)
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 GIS Databases, there are no permanent wetlands or watercourses within the application area (GIS Database). Skull Creek is the largest intermittent drainage line and is located within the application area (GIS Database). Crescent Gold Limited have advised that Skull Creek will not be affected by the proposed development (Crescent Gold Limited, 2010).

Based on vegetation mapping conducted by Western Botanical (2007) and analysis of aerial photography (GIS Database) the vegetation communities found within the application area are not considered to be riparian vegetation.

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

Methodology Crescent Gold Limited (2010)
Western Botanical (2007)
GIS Database
- Hydrography, Linear
- Laverton 50cm Orthomosaic - Landgate 2006

(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 area has been surveyed by the Department of Agriculture and Food (Pringle et al, 1994). The application area is comprised of the following land systems (GIS Database);

Brooking land system - prominent ridges of banded iron formation, supporting mulga shrublands; occasional minor halophytic communities in the south-east; and
Violet land system - undulating stony and gravelly plains and low rises, supporting mulga shrublands (Pringle et al, 1994).

The stone mantles of the Brooking land system provide effective protection against soil erosion but the disturbance or removal of stone mantles may initiate soil erosion (Pringle et al., 1994). The soils of the Violet

land system are not susceptible to erosion due to abundant stony mantles except in the narrow drainage tracts land unit which are mildly susceptible to water erosion (Pringle et al., 1994). In circumstances where the mantle is removed or disturbed, the soil can become moderately susceptible to water erosion.

Based on the above the proposed clearing may be at variance to this Principle. Potential land degradation impacts as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

Methodology Pringle et al. (1994)
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). According to available databases there are no known conservation reserves within a 100 kilometre radius of the application area (GIS Database).

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).

The groundwater salinity within the application area is approximately 1,000-3,000 milligrams/Litre Total Dissolved Solids (TDS) (GIS Database). Given the size of the area to be cleared (64.5 hectares) compared to the size of the Yilgarn Goldfields Groundwater Province (29,644,596 hectares) (GIS Database), the proposed clearing is not likely to cause salinity levels within the application area to alter significantly.

There are no permanent water bodies or watercourses within the application area (GIS Database). The application area is located in an arid region, with mainly winter rainfall (CALM, 2002). With an average rainfall of approximately 232.2 millimetres/year and an annual pan evaporation rate of 2,800 millimetres/year (BoM, 2010), there is little surface flow during normal seasonal rains. The proposed clearing is not likely to cause the quality of surface water to deteriorate.

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

Methodology BoM (2010)
CALM (2002)
GIS Database
- Public Drinking Water Source Areas
- Groundwater Salinity, Statewide
- Groundwater Provinces
- Hydrography, Linear

(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 an arid climate with an average annual rainfall of 232.2 millimetres recorded from the nearest weather station at Laverton approximately 1.4 kilometres north-east of the application area (CALM, 2002; BoM, 2010). The application area also experiences a high average annual evaporation rate exceeding the average annual rainfall by more than ten times (approximately 2,400 millimetres) (BoM, 2010). Clearing within the application area is unlikely to exacerbate or increase the incidence or intensity of flooding.

The application area is located within the Lake Carey catchment area (GIS Database). However, the size of the area to be cleared (64.5 hectares) in relation to the size of the Lake Carey catchment area (11,378,213 hectares) (GIS Database) is not likely to increase the potential for flooding within the application area, local area or within the catchment.

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

Methodology BoM (2010)
CALM (2002)
GIS Database
- Hydrographic Catchments - Catchments

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

Comments

The clearing permit application was advertised on 9 August 2010 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received in relation to this application regarding aboriginal heritage issues. A written response was provided on the matters raised.

There is one Native Title Claim (WC99_001) over the area under application. This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the 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*.

There are no registered Aboriginal Sites of Significance within the application area (GIS Database). The nearest registered Aboriginal Site of Significance is located approximately 0.45 kilometres north-east of 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.

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

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*, and the proposed clearing may be at variance to Principle (g), is not likely to be at variance to Principles (a), (b), (c), (d), (f), (h), (i) and (j) and is not at variance to Principle (e).

5. References

BoM (2010) Bureau of Meteorology Website - Climate Averages by Number, Averages for LAVERTON. http://www.bom.gov.au/climate/averages/tables/cw_012045.shtml (Accessed 24 August 2010).

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Murchison 1 (MUR1 - East Murchison subregion) Department of Conservation and Land Management, Western Australia.

Coffey Environments (2008) Level 1 Fauna Assessment Craggiemore Deposit Laverton Gold Project. Prepared for Crescent Gold Limited. Unpublished report dated June 2008.

Crescent Gold Limited (2010) Application Purpose Clearing Permit for mining at Mary Mac Hill on Mining Lease M38/270. Unpublished report dated July 2010.

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.

J & J Tucker Environmental Solutions (2008) Report No 030508 on Flora survey Carried Out for Crescent Gold at West Laverton Prospect Near Laverton. Prepared for Crescent Gold Ltd. Unpublished report dated June 2008.

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

Pringle, H.J.R., Van Vreeswyk, A.M.E., and Gilligan, S.A. (1994) An Inventory and Condition Survey of the North-Eastern Goldfields, Western Australia, Department of Agriculture, 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 Botanical (2007) Flora and Vegetation of the Craiggiemore Project Area and Associated Haul Road Alignment. Prepared for MBS Environmental Pty Ltd. Unpublished report dated November 2007.

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.