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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3264/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **St Ives Gold Mining Company Pty Ltd**

1.3. Property details

Property: Mining Lease 15/1565
Mining Lease 15/1566
Mining Lease 15/1567
Mining Lease 15/1568
Mining Lease 15/1569
Mining Lease 15/1570
Mining Lease 15/1623
Mining Lease 15/1627
Mining Lease 15/1673
Mining Lease 15/1675
Local Government Area: Shire of Coolgardie
Colloquial name: Tailings Storage Facility 4

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
290		Mechanical Removal	Tailings Storage Facility

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
Vegetation within the application area has been mapped at a 1:250,000 scale as Beard Vegetation Association (Shepherd, 2007; GIS Database): 936: Medium woodland; Salmon Gum. Botanica Consulting undertook a flora and vegetation survey over the application area in September 2007 and December 2008. The following three vegetation communities were recorded within the application area (Keith Lindbeck and Associates, 2009): 1. Eucalyptus over spinifex flat plain; 2. Transitional Eucalyptus woodland; 3. Rehabilitated Gravel Pit.	St Ives Gold Mining Company has applied to clear up to 290 hectares within an application area of approximately 314 hectares for the purpose of constructing a tailings storage facility. This includes pipeline corridors and other associated infrastructure (Keith Lindbeck and Associates, 2009). Clearing will be by mechanical removal.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994). to Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).	The clearing application area is located approximately 14 kilometres south-east of Kambalda (GIS Database). The vegetation condition was assessed by botanists from Botanica Consulting. One weed species was recorded within the application area (Keith Lindbeck and Associates, 2009).

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 is located within the Eastern Goldfields subregion of the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). At a broad scale, vegetation can be described

as Mallees, Acacia thickets and shrub-heaths on sandplains with diverse Eucalyptus woodlands occurring around salt lakes, on ranges and in valleys (CALM, 2002).

Eucalyptus woodlands have been identified as having a high species and ecosystem diversity within the Eastern Goldfields bioregion (CALM, 2002). One of the vegetation communities within the area has been described as 'Transitional Eucalyptus woodland'.

A flora and vegetation survey was undertaken within the application area by Botanica Consulting in September 2007 and December 2008. This survey identified three different vegetation communities within the application area (Keith Lindbeck and Associates, 2009). The condition of these vegetation types ranged from 'good' to 'degraded' (Keith Lindbeck and Associates, 2009).

The flora survey of the application area recorded 47 species from 23 genera and 17 families (Keith Lindbeck and Associates, 2009). The flora survey concluded that the application area supports diverse flora species, however, these species are not restricted to the application area and occur throughout the region (Keith Lindbeck and Associates, 2009). There was no Declared Rare or Priority Flora species recorded during the flora survey of the application area (Botanica Consulting, 2009). There was one weed species recorded within the application area; Prickly Paddy Melon (*Cucumis myriocarpus*) (Botanica Consulting, 2009). The presence of this introduced weed species lowers the biodiversity value of the area proposed to be cleared. Should a permit be granted, it is recommended that a condition be imposed on the permit for the purpose of weed management.

A Level Two fauna survey conducted over the application area recorded 12 species of reptile, 5 species of mammal (including introduced species) and 21 species of bird (Keith Lindbeck and Associates, 2009). The trapping rate of mammals was very low suggesting the area does not support many mammals (Keith Lindbeck and Associates, 2009). From the numbers of fauna species recorded by this survey it appears that the application area is not likely to comprise a high level of faunal diversity.

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

Methodology

Botanica Consulting (2009)
CALM (2002)
Keith Lindbeck and Assocaites (2009)
GIS Database
- Interim Biogeographic Regionalisation of Australia (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 is not likely to be at variance to this Principle

A Level Two fauna survey was carried out over the application area by Keith Lindbeck and Associates. This survey was conducted in accordance with the Environmental Protection Authority (EPA) Position Statement No. 3 and Guidance Statement 56: 'Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia' (EPA 2002; 2004). The survey was conducted from 24 October – 2 November 2007 (Keith Lindbeck and Associates, 2009).

The habitat present is not limited to the application area and there were no unique habitat features (i.e. caves, wetlands, dune systems) observed during the fauna survey (Keith Lindbeck and Associates, 2009).

Two fauna species of conservation significance were recorded within the application area; The Rainbow Bee-eater (*Merops ornatus*) and the White Browed Babbler (*Pomatostomus supercilliosus ashbyi*). Based on previous records and known habitat distributions there are a further eight fauna species of conservation significance that have the potential to occur within the application area (Keith Lindbeck and Associates, 2009).

The Rainbow Bee-eater is listed as a migratory bird by the Japan-Australia Migratory Bird Agreement (JAMBA) and is protected under the *Environment Protection and Biodiversity Conservation Act 1999*. The Rainbow Bee-eater is found across most of Australia and inhabits open forests and woodlands, shrublands and various cleared or semi-cleared habitats (DEWHA, 2009). Given this species migratory habits and large distribution, the application area is not likely to represent significant habitat for the Rainbow Bee-eater.

The White Browed Babbler (DEC Priority 4 listing) is found mainly in the arid and semi arid zones south of the Tropic of Capricorn (Johnstone and Storr, 2004). It usually inhabits the edges of most types of thicket and scrub, including mulga, wattle and other Acacia thickets, and shrubby understorey of Eucalypt and Casuarina woodlands (Johnstone and Storr, 2004). Given this species mobility and that the habitat in the application area is well represented within the region, the proposed clearing is not likely to represent significant habitat for the White Browed Babbler.

Given there are no significant habitat features within the application area and the habitat present is not regionally uncommon, the proposed clearing is not likely to represent significant habitat for the other fauna species of conservation significance potentially occurring. However, the clearing of 290 hectares will result in the loss of fauna habitat within the local area, especially fauna species that are not highly mobile.

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

Methodology DEWHA (2009)
EPA (2002)
EPA (2004)
Johnstone and Storr (2004)
Keith Lindbeck and Associates (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 recorded Declared Rare Flora (DRF) or Priority Flora species within the application area (GIS Database). Botanica Consulting conducted a flora survey over the application area during September 2007 and December 2008. No DRF or Priority Flora was recorded within the application area (Botanica Consulting, 2009).

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

Methodology Botanica Consulting (2009)
GIS Database
- Decleared Rare and Priority Flora List

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

Comments **Proposal is not likely to be at variance to this Principle**
According to available databases, there are no Threatened Ecological Communities (TEC's) within the application area (GIS Database). No vegetation communities described as a TEC were recorded during the botanical survey of the application area (Keith Lindbeck and Associates, 2009).

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

Methodology Keith Lindbeck and Associates (2009)
GIS Database
- Threatened Ecological Communities

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

Comments **Proposal is not at variance to this Principle**
The application area falls within the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) bioregion within which approximately 98.42% of the Pre-European vegetation remains (see table) (GIS Database; Shepherd, 2007).

The vegetation of the application area has been mapped as Beard Vegetation Association 936: Medium Woodland; Salmon Gum (Shepherd, 2007).

According to Shepherd (2007) approximately 96.7% of Beard Vegetation Association 936 remains at a state level and 100% remains at a bioregional level. Therefore, the area proposed to be cleared does not represent a significant remnant of native vegetation within an area that has been extensively cleared.

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

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves (and post clearing %)*
IBRA Bioregion – Coolgardie	12,912,204	12,707,619	~98.42	Least Concern	10.87 (11.04)
Beard veg assoc. – State					
936	698,752	675,636	~96.7	Least Concern	2.25 (2.22)
Beard veg assoc. – Bioregion					
936	586,792	586,792	~100	Least Concern	1.2 (1.2)

* 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 proposal is not at variance to this Principle.

Methodology
Department of Natural Resources and Environment (2002)
Shepherd (2007)
GIS Database
- Interim Biogeographic Regionalisation of Australia
- 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 proposed to be cleared is not associated with any watercourses, wetlands or wetland dependent vegetation (Keith Lindbeck and Associates, 2009). The application area is located within two kilometres of Lake Lefroy, a non-perennial salt lake. However, the vegetation within the application area does not form a buffer to this lake system and the proposed clearing is not likely to impact Lake Lefroy (Keith Lindbeck and Associates, 2009).

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

Methodology
Keith Lindbeck and Associates (2009)
GIS Database
- Hydrography, linear

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

Comments

Proposal is not likely to be at variance to this Principle

The application area is located within the Kambalda Soil-Landscape Zone (Tille, 2006). This zone is characterised by flat to undulating plains (with hills, ranges and some salt lakes and stony plains) on greenstone and granitic rocks of the Yilgarn Craton (Tille, 2006).

The soils in the application area are predominately sands and gravels with some interbedded clays and silts (Keith Lindbeck and Associates, 2009). The pH of the surface soil within the application area is 5.5 – 6.0 and there has been no known occurrence of acid sulphate soils (CSIRO, 2009).

The application area has an annual evaporation rate of over 8 times the annual average rainfall (BoM; GIS Database). Based on this information, recharge to groundwater would be minimal, thereby reducing the likelihood of salinity increasing as a result of the proposed clearing.

The area is relatively flat and wind roses for Kalgoorlie indicate low wind speeds which would minimise the potential for wind and water erosion (GIS Database; Keith Lindbeck and Associates, 2009). However, leaving large areas cleared can expose them to erosion. Should a permit be granted, it is recommended that conditions be imposed for the purposes of staged clearing and vegetative material and topsoil retention to reduce the risk of land degradation.

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

Methodology
BoM (2009)
CSIRO (2009)
Keith Lindbeck and Associates (2009)
Tille (2006)
GIS Database
- Evaporation Isopleths
- Rainfall, Mean Annual
- Topograpgic Contours

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

Comments

Proposal is not likely to be at variance to this Principle

According to available databases, the application area is not located within a conservation area or DEC managed land (GIS Database). The nearest known conservation area is the Kambalda Nature Reserve located approximately 13 kilometres north-west of the application area (GIS Database). Based on the distance between the application area and the nature reserve, the proposed clearing is not likely to impact on the environmental values of any conservation reserve.

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

Methodology

GIS Database
- CALM Managed Lands and Waters

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments

Proposal is not likely to be at variance to this Principle

According to available databases, the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database).

There are no permanent or ephemeral waterbodies located within the application area (GIS Database; Keith Lindbeck and Associates, 2009). The application area is within two kilometres of Lake Lefroy, and surface water sampling indicates that the surface water is hypersaline (Keith Lindbeck and Associates, 2009). Given there is a low average rainfall in the greater Kalgoorlie area (265 millimetres) (BoM, 2009) and there are no watercourses within the application area, the proposed clearing is not likely to cause sedimentation or deteriorate the quality of the already hypersaline surface water in the Lake Lefroy area.

Groundwater within the application area has been found to be acidic and hypersaline with salinity varying from 127,000 to 427,000 milligrams per litre Total Dissolved Solids (TDS) (Keith Lindbeck and Associates, 2009). Groundwater levels were measured raging from 6.18 to 27.1 metres below ground level (Keith Lindbeck and Associates, 2009). Given the groundwater is already hypersaline, any clearing within the application area is not likely to alter the existing groundwater quality.

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

Methodology

BoM (2009)
Keith Lindbeck and Associates (2009)
GIS Database
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSA's)

(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 climate of the region is arid and is characterised by cool winters and hot, dry summers (Keith Lindbeck and Associates, 2009). The application area receives an average annual rainfall of approximately 265 millimetres (BoM, 2009). Based on an average annual evaporation rate of 2,400 – 2,600 millimetres (GIS Database), any surface water resulting from rainfall events is likely to be relatively short lived.

There are no watercourses or wetlands within the application area (GIS Database). The application area tends to be on slightly higher ground, with surface drainage trends towards Lake Lefroy (Keith Lindbeck and Associates, 2009).

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

Methodology

BoM (2009)
Keith Lindbeck and Associates (2009)
GIS Database
- Evaporation Isopleths
- Hydrography, linear

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

Comments

The clearing permit application was advertised by the Department of Mines and Petroleum, inviting submissions from the public. There was one submission received raising concerns over heritage issues. These concerns were forwarded on to the applicant.

There are two native title claims over the area under application; WC98/027 and WC99/002 (GIS Database).

These claims have been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenements have 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 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 throughout the clearing process.

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

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

4. Assessor's comments

Comment

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

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

5. References

Botanica Consulting (2009) Flora and Vegetation Survey of the Proposed Tailings Storage Facility at St Ives Gold Mine. Unpublished report for St Ives Gold Mining Company Pty Ltd, Western Australia.

Bureau of Meteorology (2009) BOM Website - Climate Averages by Number, Averages for Kalgoorlie-Boulder Airport. Available online at: http://www.bom.gov.au/climate/averages/tables/cw_012038.shtml accessed on 1 October 2009.

Commonwealth Scientific and Industrial Research Organisation (2009) Australian Soil Resource Information System. Available online at: http://www.asris.csiro.au/index_ie.html Accessed on 1 October, 2009.

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

Department of Environment, Water, Heritage and the Arts (2009) Merops ornatus - Rainbow Bee-eater. Available online at http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=670. Accessed 5 October, 2009.

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.

EPA (2002) Terrestrial Biological Surveys as an element of biodiversity protection. Position Statement No. 3. March 2002. Environmental Protection Authority, Western Australia.

EPA (2004) Guidance for the Assessment of Environmental Factors: Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia. Guidance Statement No 56. Environmental Protection Authority, Western Australia.

Johnstone, R.E & Storr, G.M (2004) Handbook of Birds of Western Australia Vol. II, Western Australian Museum, Perth.

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

Keith Lindbeck and Associates (2009) Tailings Storage Facility (4): Supporting Document for Clearing Permit Application. Unpublished report for St Ives Gold Mining Company Pty Ltd, 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

Tille. P. (2006) Soil-landscapes of Western Australia's Rangelands and Arid Interior. Technical Report 313. Department of Agriculture and Food, Western Australia. ISSN 1039-7205.

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.