



1. Application details

1.1. Permit application details

Permit application No.: 1993/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Westdeen Holdings Pty Ltd

1.3. Property details

Property: M70/309
Local Government Area: Shire Of Irwin
Colloquial name: Dongara

1.4. Application

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

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>Beard vegetation associations have been mapped at 1:250,000 scale for the whole of WA, and are a useful tool to examine the vegetation extent in a regional context. Two Beard vegetation associations are located within the area proposed to be cleared (GIS Database, 2007). These are:</p> <p>17: shrublands, <i>Acacia rostellifera</i> thicket</p> <p>1026: Mosaic: Shrublands; <i>Acacia rostellifera</i>, <i>A. cyclops</i> (in the south) & <i>Melaleuca cardiophylla</i> (in the north) thicket / Shrublands; <i>Acacia lasiocarpa</i> & <i>Melaleuca acerosa</i> heath.</p>	<p>Westdeen Holdings Pty Ltd (hereafter referred to as Westdeen Holdings) have applied to clear 5.91 hectares of native vegetation for mineral production of Lime sand. The majority of the area applied to clear is a sand dune with only small pockets of vegetation existing within this sand dune environment. Judging from aerial photos it is estimated that these vegetated pockets would cover an area of around 0.5 - 1 hectare.</p>	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>During the site visit on the 28th of June, 2007, it was noted that there were motorbike tracks within the sand dune proposed to be cleared, it is likely this has limited vegetation growth. No weeds were sighted during the site visit.</p>

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 clearing permit application is located within the Lesueur Sandplain IBRA (Interim Biogeographic Regionalisation of Australia) subregion (GIS Database). The biodiversity values of this subregion have been assessed by Desmond & Chant (2001). The Lesueur Sandplain subregion is composed mainly of proteaceous scrub-heaths, rich in endemics, on the sandy earths of an extensive, undulating lateritic sandplain (Desmond & Chant, 2001). These Shrub-heaths occur on a mosaic of lateritic mesas, sandplains, coastal sands and limestones. The area is specially known for its Lesueur floristic communities, of which many are distinct, species rich and geographically restricted, occurring in the Mt Lesueur and Coomallo area (Desmond & Chant, 2001). The Mt Lesueur floristic communities are located approximately 80km to the south of the application area.

The main land use of the subregion is dry-land agriculture (69.34%) while conservation (17.36%) and UCL and Crown Reserves (12.5%) also make up a smaller portion (Desmond & Chant, 2001).

A site visit was completed by the assessing officer on the 28th of June, 2007. The assessing officer noted the vegetation to be cleared was made up of small isolated pockets within a predominately sand dune area, and was unlikely to contain a higher diversity of fauna and flora species than other areas of native vegetation in the local area.

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

Methodology Desmond & Chant (2001).
GIS Database:
CALM Managed Lands and Waters - CALM 1/07/05
Interim Biogeographic Regionalisation of Australia - EA 18/10/00
Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00

(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 search of the Western Australia's Museum Faunabase was completed by the assessing officer on the 7th of November 2007. The database search revealed that there were 4 species of amphibians, 19 species of reptiles, 2 species of mammals and 15 species of birds which potentially may inhabit the application area (Western Australian Museum, 2007). Of the species identified two are of conservation significance, these are the Peregrine Falcon (*Falco peregrinus*) and the Carpet Python (*Morelia spilota imbricata*).

The Carpet Python (Schedule 4) occupies a range of habitats from semi-arid coastal and inland habitats, Banksia woodland, Eucalypt woodlands and grasslands (Burbidge, 2004). Its range includes most of the south-west of Western Australia (Burbidge, 2004). Although this species may be found within the application area, the vegetation within the application area represents a small fraction of a Carpet Python's homerange, and given the disturbed nature of the area, it is not likely that the vegetation within the application area is significant habitat for this species.

The Peregrine Falcon (Schedule 4) is widespread across Australia including some continental islands but absent from most deserts and the Nullarbor Plain (Johnstone & Storr, 1998). Its habitat consists of areas such as cliffs along coasts, rivers and ranges, and about wooded watercourses and lakes (Johnstone & Storr, 1998). The Peregrine Falcon may potentially utilise the application area for feeding, however, there are large amounts of potential feeding habitat that the Peregrine Falcon can utilise in the local area. Therefore, the vegetation within the application area is not likely to be significant habitat for this species.

As mentioned previously the vegetation of the application area consists of scattered pockets of dune scrub within a predominantly sand dune environment. Due to the small size of these pockets, the clearing of such vegetation is unlikely to impact on the overall habitat of conservation significant species within the area, especially given there are areas of better quality and size in surrounding conservation estates (GIS Database).

A site visit was completed on the 28th of June 2007 by the assessing officer. During the site visit the assessing officer confirmed that the vegetation of the application area consisted of small isolated pockets of dune scrub, which was likely to be of low habitat value for fauna in the local area.

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

Methodology Burbidge (2007).
Johnstone & Storr (1998).
Western Australian Museum (2007).
GIS Database:
CALM Managed Lands and Waters - CALM 1/07/05

(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 the GIS Database the closest priority flora species to the application area is *Tricoryne robusta* which is found approximately 7.3km to the north east.

A desktop survey of the application area was completed by Westdeen Holdings on the 7th of January 2008. The survey did not identify any significant flora species as occurring within the application area or the mining lease 70/309 (DEC, 2008). However there were a number of conservation significant species listed as occurring within a 20km radius of the area applied to clear. These species were: *Acacia telmica* (P3), *Anthocercis intricata* (P3), *Calytrix eneabensis* (P3), *Dampiera tephrea* (P2), *Eucalyptus ebbaneoensis* subsp. *photina* (P4), *Eucalyptus zopherophloia* (P4), *Gastrolobium callistachys* (P4), *Grevillea tenuiloba* (P3), *Stylidium drummondianum* (P3) and *Villarsia congestiflora* (P3). These species are likely to occur within the Beekeepers Nature Reserve which is located approximately 4km to the south of the application area.

The vegetation of the application area is composed of small pockets of Acacia dominated species which are unlikely to be of conservation significance to the region (Westdeen Holdings). This information was verified during a site visit on the 28th of June 2007, conducted by the assessing officer. Based on this information it is unlikely that the vegetation proposed to clear is likely to contain DRF or Priority Flora species.

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

Methodology DEC (2008).
Westdeen Holdings (2007).
GIS Database:
Declared Rare and Priority Flora List - CALM 01/07/05

(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

There are no known Threatened Ecological Communities found within the application area (GIS Database). The closest TEC to the application area is located approximately 32 kilometres to the north (GIS Database). Based on the large distance between the two areas mentioned above and the small size of clearing required there is unlikely to be any significant effects on the TEC from the proposed clearing.

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

Methodology GIS Database:
Threatened Ecological Communities - CALM

(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 likely to be at variance to this Principle

The proposed clearing area lies within the Interim Biogeographic Regionalisation for Australia (IBRA) Geraldton Sandplains Bioregion (GIS Database). There is approximately 42.2% of vegetation remaining within this bioregion, of this vegetation remaining, approximately 35.5% is located within conservation reserves (Shepherd et al., 2001). While there is approximately 40.9% of Pre-European vegetation remaining within the Leseur Sandplains IBRA Subregion, of which 41.4% remains within conservation estate. There is also approximately 48.8% of Pre-European vegetation remaining within the Shire of Irwin. The vegetation of the area is classified as Beard Vegetation Association 17 - Shrublands; *Acacia rostelifera* thicket and Beard Vegetation Association 1026 - Mosaic: Shrublands; *Acacia rostelifera*, *A. cyclops* (in the south) & *Melaleuca cardiophylla* (in the north) thicket / Shrublands; *Acacia lasiocarpa* & *Melaleuca acerosa* heath. Both of these vegetation associations are represented within conservation estate on a state, bioregional and subregional level. The loss of 5.91ha is not likely to significantly impact on the extent of these vegetation types either on a regional or subregional level. Based on the information above, the vegetation proposed to clear does not represent a significant remnant of vegetation in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	% of Pre-European area in IUCN Class I-IV Reserves (and current %)
IBRA Bioregion – Geraldton Sandplains	3,136,277	1,324,440	42.2	Least Concern	15.3 (35.5)
IBRA Subregion - Leseur Sandplain	1,171,805	478,987	40.9	Least Concern	17.7 (41.4)
Local Government Irwin	238,088	115,612	48.6	Least Concern	NA
Beard veg assoc. – State					
17	76,640	67,220	87.7	Least Concern	7.5 (8.5)
1026	70,705	63,069	89.2	Least Concern	50.3 (52.4)
Beard veg assoc. – Bioregion					
17	54,071	44,772	82.8	Least Concern	10.6 (12.7)
1026	11,376	10,040	88.3	Least Concern	48.3 (51.3)
Beard veg assoc. – Subregion					
17	4,473	3,040	68.0	Least Concern	11.2 (15.5)
1026	11,376	10,040	88.3	Least Concern	48.3 (51.3)

- * Shepherd et al. (2001) updated 2005
** Department of Natural Resources and Environment (2002)

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

Methodology Department of Natural Resources and Environment (2002)
Shepherd et al. (2001)
GIS Database:
- Pre European Vegetation DA 01/01

(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

There are no water courses or wetland areas found within the application area (GIS Database). The closest water course is Irwin River which is located approximately 2.7km to the north 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 Databases:
Geodata, Lakes - GA 28/06/02
Hydrography, linear - DOE 1/2/04
Hydrography, linear (medium scale, 250k GA)

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

Comments Proposal is at variance to this Principle

The project area is made up of dune system up to 5 to 10m overlying Tamala Limestone (Mc Arthur, 1991). Typical land characteristics of this system are fine sand overlying a truncated surface of limestone calcrete which may be exposed in some areas (Westdeen Holdings, 2007). The topography of the area is relatively flat with scattered sand dunes arranged perpendicular to the coast. The sand dune that is proposed to be mined is largely unvegetated with scattered dune shrub associations occurring within a large sand dune (Westdeen Holdings, 2007).

The proposed clearing will result in the progressive mining of a sand dune (5.91ha), the resulting surface will be level with the surrounding plain and not on any slope (Westdeen Holdings, 2007). As a result rainfall is likely to infiltrate the sandy soils easily and then flow towards the sea in groundwater. Based on this information it is unlikely water erosion will result from the proposed clearing.

Soils of the project area are part of the Quindalup dunes and are typically cross-bedded, well sorted, fine skeletal grain stones (Westdeen Holdings, 2007). Due to the largely unvegetated state of the sand dune and the strong coastal winds of the application area, it is likely that wind erosion is already naturally occurring at the site. This is evident from the moving nature of these sand dunes (Westdeen Holdings, 2007). The clearing of several pockets of dune scrub may slightly increase the amount of sand that is exposed to wind erosion.

Based on the above the proposal is at variance to this principle. It is recommended that conditions be placed on the permit to limit the area that may be cleared in any calendar year and to require the permit holder to rehabilitate any area cleared within 6 months of clearing commencing.

Methodology Mc Arthur (1991).
Westdeen Holdings (2007).
GIS Database:
Hydrography, Statewide - DOW
Topographic Contours, Statewide - DOLA 12/09/02

(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

There are no conservation areas found within the application area (GIS Database). The closest conservation area is the Beekeepers Nature Reserve which is located approximately 3.2km to the south east of the application area (GIS Database). The majority of vegetation on the sand dune is scattered pockets of vegetation. These pockets are unlikely to be significant for species moving in and out of the conservation reserve. Based on this information and that fact that there is a significant distance between the two areas, the environmental values of the Beekeepers Nature Reserve are unlikely to be impacted by the proposed clearing.

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 - CALM 1/07/05

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

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

The proposal is not located within a Public Drinking Water Supply Area (GIS Database).

There are no wetlands, watercourses or significant hydrological features located within the mining lease (GIS Database). A site visit by the assessing officer on the 28th of June 2007 confirmed this finding.

The area of the coastal plain that the mining lease is located on is characterised by a relatively shallow water table of 2 to 5m (Westdeen Holdings, 2007). There are no processes that will result in the reduction of the quality of ground water, and access to groundwater for mining will not be required (Westdeen Holdings, 2007). Based on the information above, and the small scale of mining, it is unlikely that surface or under ground water will be significantly affected from the clearing proposal.

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

Methodology Westdeen Holdings (2007).
GIS Database:
Public Drinking Water Source Areas (PDWSAs) - DOW

(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 is located on sandy soils overlying limestone calcrete (GIS Database). During heavy rainfall periods water is likely to move through these sandy soils rather than flowing off the soil.

The climate of the Geraldton region (which includes Dongara) is characterised by hot dry summers and mild wet winters (BoM, 2007). The average rainfall of the region is approximately 460 millimetres. The annual evaporation rate of the region is approximately 2460mm, this is over five times the average rainfall (BoM, 2007). As a result water from rainfall is unlikely to collect and flood as it will be evaporated quickly. In addition to this, the sandy nature of the soil allows water to penetrate easily and move towards groundwater without having time to collect and flood.

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

Methodology BoM (2007).
GIS Database:
Hydrogeology, Statewide - DOW

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

Comments

There is one native title claim in the area under application, this is registered on behalf of the Mullewa Wadjari group - WC96_093 (GIS Database, 2007). The mining tenement has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There is one registered Site of Aboriginal Significance located approximately 0.8km to the north of the application area (Irwin River, Site ID 18907) (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Sites of Aboriginal 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 (DOW) 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 application was referred to the EPA on the 14 of August 2007 because it was within 2km of the coastline and the town of Dongara. However on the 12th of November, 2007, the EPA announced there would be no formal assessment on their behalf.

A letter sent from the Shire of Irwin to the assessing officer states that the Shire objects to the proposal due to

its close proximity to the town of Port Denison and Dongara, and the potential for sand drift to have negative impacts on residential areas as a result of mining activities. In regard to these comments made by the Shire it should be noted that the majority of the land proposed to be mined is largely unvegetated and therefore natural sand drift would already be occurring at this site. The proponent has also agreed to reduce the proposed mining area from 13.39ha to 5.91ha, thereby reducing the amount of vegetation which will be required to clear. It is recommended that conditions be placed on the permit to limit the area that may be cleared in any calendar year and to require the permit holder to rehabilitate any area cleared within 6 months of clearing commencing.

Methodology GIS Databases:
Aboriginal Sites of Significance - DIA
Native Title Claims - DLI

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Mineral Production	Mechanical Removal	5.91	The proposal has been assessed against the Clearing Principles and the proposal has been found not likely to be at variance to Principles a, b, c, d, e, f, h, i and j, and is at variance to Principle g. Should the permit be granted, it is recommended that conditions be imposed on th permit for the purposes of land degradation management, record keeping and permit reporting.

5. References

- BoM (2007) Geraldton Area Climate and History. Bureau of Meteorology. URL: <http://www.bom.gov.au/weather/wa/geraldton/climate.shtml>
- Burbridge, A (2004) Threatened animals of Western Australia. Department of Conservation and Land Management. Kensington, Western Australia.
- DEC (2008) Request for Rare Flora Information - Summary of Rare Threatened Flora Data. Prepared for Westdeen Holdings Pty, Ltd., 7 January 2007.
- Department of Environment and Conservation (2007) Carpet Python, URL: http://www.naturebase.net/dmdocuments/sp_carpet_python.pdf
- 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.
- Desmond, A & Chant, A (2001) Geraldton Sandplain 3 (GS3 - Lesueur Sandplain subregion) in 'A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002', Report published by the Department of Conservation and Land Management, Perth, Western Australia.
- Johnstone, R.E, & Storr, G.M. (1998) Handbook of Western Australian Birds. 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.
- McArthur, W.M. (1991) Reference soils of south-western Australia. Department of Agriculture, Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- West Australian Museum (2007) FaunaBase - Amphibians, Birds, Fishes, Mammals and Reptiles, URL <http://www.museum.wa.gov.au/faunabase/prod/index.htm>
- Westdeen Holdings (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.
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.