Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3758/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Robe River Mining Co Pty Ltd**

1.3. Property details

Property: *Iron Ore (Cleveland Cliffs) Agreement Act 1964*, Mineral Lease 248SA (AML70/248)
Local Government Area: Shire of East Pilbara
Colloquial name: West Angelas Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
12.25		Mechanical Removal	Mineral exploration, borrow pits and access tracks

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
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). - 18: Low woodland; mulga (Acacia aneura). Rio Tinto (2010a) conducted a flora and vegetation survey over the application area on 23 and 24 March 2010. Nine vegetation types were identified within the application areas (Rio Tinto, 2010a). **Hill Slope Vegetation** **1. ElEgChAsAsAtTpTbTt:** *Eucalyptus leucophloia*, *Eucalyptus gamophylla*, *Corymbia hamersleyensis* low open forest over *Acacia steedmanii* high open shrubland over *Acacia sibirica*, *Acacia tenuissima* open shrubland over *Triodia pungens*, *Triodia basedowii* hummock grassland over *Themeda triandra* very open tussock grassland. **2. EgCdAaAsAbEfAtPrTpTb:** *Eucalyptus gamophylla*, *Corymbia deserticola*, *Acacia aneura* low woodland over *Acacia steedmanii, Acacia bivenosa* high shrubland over *Eremophila forrestii*, *Acacia tenuissima* open shrubland over *Ptilotus rotundifolius* low scattered shrubs over *Triodia pungens*, *Triodia basedowii* open hummock grassland. **3. HcElAbAsTbTp:** *Hakea chordophylla*, *Eucalyptus leucophloia* low open woodland over *Acacia bivenosa* shrubland over *Acacia sibirica* low open shrubland over *Triodia basedowii*, *Triodia pungens* hummock grassland. **4. ElHcApArAaEsAbTp:** *Eucalyptus leucophloia*, *Hakea chordophylla*, *Acacia pruinocarpa* low open woodland over *Acacia rhodophloia*, *Acacia aneura* high shrubland over *Exocarpos sparteus*, *Acacia bivenosa* open shrubland over *Triodia pungens* hummock grassland.	Robe River Mining Co Pty Ltd has applied to clear up to 12.25 hectares of native vegetation within three disjunct application areas (northern, southern and eastern) totalling approximately 38.2 hectares. The company proposes to clear approximately 3.75 hectares within the northern area (totalling 20.6 hectares) for exploration drilling. The clearing will comprise of drill lines and access tracks (4.5 kilometres by 5 metres), and 24 drill pads (25 metres by 25 metres). The southern and eastern areas (totalling 17.6 hectares) will be cleared for borrow pits to obtain gravel supply for sheeting tracks and roads. Vegetation will be cleared using mechanical equipment using blade down technique. Topsoil and vegetative material will be retained and used during rehabilitation of disturbed areas.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994). To Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994)	The vegetation condition was assessed by a botanist from Rio Tinto. The vegetation conditions were described using a scale based on Trudgen (1988) and have been converted to the corresponding conditions from the Keighery (1994) scale.

5. ElEgAbAtPrTbTp:
Eucalyptus leucophloia, *Eucalyptus gamophylla* low open woodland over *Acacia bivenosa*, *Acacia tenuissima* shrubland over *Ptilotus rotundifolius* low open shrubland over *Triodia basedowii*, *Triodia pungens* hummock grassland.

Mulga Plain Vegetation

6. AaCdApShEfTsTp:
Acacia aneura, *Corymbia deserticola*, *Acacia pruinocarpa* low open forest over *Senna helmsii, Eremophila forrestii, Tribulus suberosus* low open shrubland over *Triodia pungens* open hummock grassland.

7. AaApCdMvTp:
Acacia aneura, *Acacia pruinocarpa*, *Corymbia deserticola* low open forest over *Maireana villosa* low scattered shrubs over *Triodia pungens* hummock grassland.

Minor Flowline Vegetation

8. ElAbApAmPoClTpTt:
Eucalyptus leucophloia low open woodland over *Acacia bivenosa*, *Acacia pyrifolia*, *Acacia maitlandii* open heath over *Ptilotus obovatus*, *Corchorus lasiocarpus* low open shrubland over *Triodia pungens* hummock grassland over *Themeda triandra* open tussock grassland.

9. EgElAmApTpTbTt:
Eucalyptus gamophylla, *Eucalyptus leucophloia* low woodland over *Acacia monticola*, *Acacia pyrifolia* open heath over *Triodia pungens*, *Triodia basedowii* hummock grassland over *Themeda triandra* scattered tussock grass.

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 Hamersley (PIL3) Interim Biogeographic Regionalisation of Australia (IBRA) subregion (GIS Database). At a broad scale vegetation can be described as Mulga low woodland over bunch grasses on fine textured soils in valley floors, and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges (CALM, 2002).

A flora and vegetation survey was undertaken over the application area and this survey identified nine vegetation types which range in condition from 'Excellent' to 'Very Good' (Rio Tinto, 2010a). All of the vegetation types are well represented in the Pilbara bioregion (Rio Tinto, 2010a).

A total of 79 native flora species from 38 genera and belonging to 23 families were recorded during the survey of the application area (Rio Tinto, 2010a). No Declared Rare Flora, Priority Flora, Threatened Ecological Communities or Priority Ecological Communities have been identified within the application area (Rio Tinto, 2010a; GIS Database). A flora survey has been conducted in the vicinity of the southern application area and recorded a total of 182 native species from 80 plant genera and belonging to 35 families from thirteen vegetation communities (Rio Tinto, 2010b). It is important to note that this survey was conducted over a much larger area than the flora survey of the application area, therefore, the higher number of flora species would be expected. However, the vegetation within the application area does not appear to demonstrate a high level of floristic diversity.

A search by the assessing officer of DEC's Naturemap revealed records of 1 amphibian, 5 bird, 21 mammal and 54 reptile species within a 20 kilometres radius (DEC, 2010). Based on this search, it appears the application area may support a high number of reptile species. Western Pebble-mound Mouse (*Pseudomys chapmani* – DEC Priority 4) mounds have also been recorded within the northern and southern application areas (Rio Tinto, 2010a). The fauna habitats within the application area are considered reasonably widespread and abundant in the West Angelas/Angelo River/Rhodes Ridge area (Rio Tinto, 2010a).

The application area is not likely to comprise a greater diversity than nearby and similar areas within the bioregion and local area.

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

Methodology CALM (2002)

DEC (2010)
Rio Tinto (2010a)
Rio Tinto (2010b)
GIS Database
- Declared Rare and Priority Flora List
- IBRA WA (Regions – Sub Regions)
- Threatened Ecological Sites

(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

No targeted fauna surveys have been conducted within the application area. A desktop search and general observations of the application area have been conducted by Rio Tinto (2010a).

The fauna habitat of the application area has been described as being dominated by mulga plains and stony slopes (Rio Tinto, 2010a). This vegetation may provide foraging and shelter opportunities for a variety of fauna species which feed on *Triodia* and *Acacia* species, while highly mobile species may temporarily utilise habitats within the application area (Rio Tinto, 2010a). However, this habitat is well represented throughout the West Angelas/Angelo River/Rhodes Ridge areas. No significant habitat features such as caves, waterholes, significant creek lines and gorges were identified within the application area (Rio Tinto, 2010a).

The Western Pebble-mound Mouse (*Pseudomys chapmani*) (DEC Priority 4) has been recorded within the northern and southern application areas (Rio Tinto, 2010a). This species is common to very common in the Pilbara where habitat of scree slopes and stony plains are present (Start et al., 2000). Similar habitat for the Western Pebble-mound Mouse is common throughout the Pilbara and given the relatively small area of the proposed clearing across three disjunct application areas, the impact on this species is not likely to be significant.

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

Methodology

Rio Tinto (2010a)
Start et al. (2000)

(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 datasets there are no known records of Declared Rare Flora (DRF) within the application area (GIS database). The nearest record of DRF (*Lepidum catapycnon*) is located approximately 15 kilometres north-east of the northern application area (GIS Database). Whilst suitable habitat for *Lepidum catapycnon* occurs within the application areas, none was recorded during the survey of the application area (Rio Tinto, 2010a). Given the species perennial growth form it is unlikely to have been overlooked during the survey (Rio Tinto, 2010a).

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

Methodology

Rio Tinto (2010a)
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

There are no records of any Threatened Ecological Communities (TEC's) within the application area (GIS database). The nearest known TEC is located approximately 115 kilometres north-west of the application area (GIS database).

The West Angelas Cracking-Clays Priority Ecological Community (Priority 1) has been recorded from thirteen locations north of the northern application area (GIS Database). None of the vegetation types occurring within the application area are representative of this PEC (Rio Tinto, 2010a).

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

Methodology

Rio Tinto (2010a)
GIS Database:
- Threatened Ecological Sites

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

Comments

Proposal is not at variance to this Principle

The clearing application area falls within the Pilbara Interim Biogeographic Regionalisation for Australia (IBRA) region in which approximately 99.9% of the pre-European vegetation remains (see table) (GIS database; Shepherd, 2007).

The vegetation of the clearing application area has been mapped as Beard Vegetation Association 18: Low woodland; mulga (*Acacia aneura*) (GIS Database). According to Shepherd (2007) approximately 100% of Beard Vegetation Association 18 remains at both the state and bioregional level (see table).

According to the Bioregional Conservation Status of Ecological Vegetation Classes, the conservation status for the Pilbara Bioregion and Beard Vegetation Association 18 is of "Least Concern" (Department of Natural Resources and Environment, 2002) (see table).

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

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion – Pilbara	17,804,188	17,794,647	~99.9	Least Concern	6.3
Beard veg assoc. – State					
18	19,892,305	19,890,195	~100	Least Concern	2.1
Beard veg assoc. – Bioregion					
18	676,557	676,557	~100	Least Concern	16.8

* Shepherd (2007)
** Department of Natural Resources and Environment (2002)

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

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 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

There are no permanent wetlands or watercourses within the application area (GIS Database). Whilst there are numerous minor, non-perennial watercourses which intercept the application area, the vegetation communities growing in association with these watercourses are not unique and are considered common and widespread in the Pilbara bioregion within similar watercourses (GIS Database). The proposed clearing is not likely to significantly impact on the conservation of vegetation growing in association with these watercourses.

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

Methodology

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

According to the available datasets the application area intersects the Boolgeeda and Newman Land Systems (GIS Database).

The Boolgeeda Land System is characterised by stony lower slopes and plains below large range hill systems that support spinifex grasslands and Mulga shrublands (Van Vreeswyk et al., 2004). Soils mantles are likely to comprise of abundant to very abundant pebbles, cobbles, ironstone and other rocks (Van Vreeswyk et al., 2004). Van Vreeswyk et al. (2004) report that the Boolgeeda Land System is not susceptible to erosion.

The Newman Land System is characterised by rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands (Van Vreeswyk et al., 2004). This land system is largely inaccessible or poorly accessible and contains iron ore deposits which are currently being mined and deposits which are likely to be mined (Van Vreeswyk et al., 2004). With soil mantles that are abundant to very abundant in pebbles, cobbles, ironstones and other rocks, the Newman Land System is not likely to be susceptible to erosion.

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

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

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

Comments

Proposal is not likely to be at variance to this Principle

According to available datasets the application area is not located within a Department of Environment and Conservation (DEC) managed conservation area (GIS Database). Karijini National Park is situated approximately 16 kilometres west, north-west of the application area at its closest point (GIS Database). With approximately 99.9% of pre-European vegetation remaining within the Pilbara bioregion and local area largely uncleared (Shepherd, 2007), the vegetation under application is not considered an important ecological linkage to Karijini National Park.

The proposed clearing is not likely to adversely impact on the environmental values of Karijini National Park.

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

Methodology Shepherd (2007)
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

There are no permanent wetlands or watercourses within or adjacent to the application area (GIS Database). The proposed clearing is unlikely to cause deterioration in the quality of surface water in the local area.

The application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). The nearest PDWSA is Newman Water Reserve which is located approximately 71 kilometres east of the application area at its closest point (GIS Database). Given the distance separating the application area and the nearest water supply area, the proposed clearing is unlikely to impact on the water quality of the Newman Water Reserve.

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

Methodology GIS Database:
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSAs)

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

Comments

Proposal is not likely to be at variance to this Principle

The application area is located within the Ashburton River Catchment Area which covers a total area of approximately 7,877,743 hectares (GIS Database). The proposed clearing of native vegetation for exploration drilling, borrow pits and access tracks is not likely to impact on the drainage characteristics of the Ashburton River Catchment, or the local area.

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

Methodology GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There is one Native Title Claim over the area under application (WC97_043). 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 Sites of Aboriginal Significance within the area applied to clear (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. Robe River Mining Co Pty Ltd (2010) has advised that heritage surveys will be undertaken and that any sites identified will be avoided.

The clearing permit application was advertised on 31 May 2010 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

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

Robe River Mining Co Pty Ltd (2010)
GIS Database:
- Native Title Claims
- Sites of Aboriginal Significance

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 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).

5. References

DEC (2010). NatureMap - Department of Environment and Conservation and Western Australian Museum. http://naturemap.dec.wa.gov.au/default.aspx. Accessed 7 July 2010.

Department of Conservation and Land Management (2002). Hamersley 3 (PIL 3– Hamersley synopsis, A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Report published by CALM, Perth, Western Australia.

Department of Natural Resources and Environment (2002). Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

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

Rio Tinto (2010a). Flora and Vegetation Survey for Proposed Exploration Drilling and Borrow Pit Construction at West Angelas. Unpublished report for Robe River Mining Co Pty Ltd, Prepared by Rio Tinto, April 2010.

Rio Tinto (2010b). Botanical Survey for Exploration Drilling at Indabiddy Deposit (Angelo River) & Supporting Document to a Native Vegetation Clearing Permit Application. Unpublished report for Robe River Mining Co Pty Ltd, Prepared by Rio Tinto, February 2010.

Robe River Mining Co Pty Ltd (2010). Documentation Accompanying Clearing Permit Application for CPS 3758/1, Prepared by Robe River Mining Co Pty Ltd, May 2010.

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.

Start, A.N., Anstee, S.D. & Endersby, M. (2000). 'A review of the biology and conservation status of the Ngadji, *Pseudomys chapmani* Kitchener, 1980 (Rodentia: Muridae)', CALMScience, vol. 3, no.2, pp.125-147.

Van Vreeswyk A.M.E., Payne A.L., Leighton K.A. and Hennig P. (2004). Technical Bulletin - An inventory and condition survey of rangelands in Pilbara Region, Western Australia, No 92, Department of Agriculture, Government of Western Australia, Perth, Western Australia.

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.