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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4491/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Hamersley Iron Pty Ltd**

1.3. Property details

Property: *Iron Ore (Hamersley Range) Agreement Act 1963*, Special Lease for Mining Operations 3116/4984 (Document I 195323 L) (Lease Extension J761009), Lots 9, 13, 32 on Deposited Plan 47815;
Miscellaneous Licence 47/103
Local Government Area: Shire of Ashburton
Colloquial name: Tom Price Main Line Road Detour

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.3		Mechanical Removal	Road Construction

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 6 October 2011

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard vegetation associations have been mapped for the whole of Western Australia. Two Beard vegetation association have been mapped within the application area (GIS Database). **93:** Hummock grasslands, shrub steppe; kanji over soft spinifex; and **152:** Hummock grasslands, grass steppe; soft and hard spinifex. A large flora and vegetation survey was conducted by Biota Environmental Sciences in April 2008 for the Rio Tinto rail duplication project. This survey of the rail corridor included the application area (Biota, 2008a). One vegetation type was identified within the application area as well as part of the application area being mapped as degraded (Biota, 2008a). **Vegetation of the Stony Hills and Plains** **ChApyAbTwTe:** *Corymbia hamersleyana* scattered low trees over *Acacia pyrifolia* scattered tall shrubs over *A. bivenosa* open shrubland over *Triodia wiseana*, *T. epactia* hummock grassland. **Disturbed:** Disturbed areas, mostly cleared of native vegetation.	Hamersley Iron Pty Ltd has applied to clear up to 0.3 hectares of native vegetation for the purpose of road construction. The clearing is for a detour track to allow vehicle access to the Tom Price mainline. An old rail crossover point previously existed within the application area but it has not been used in over 20 years and the proposed clearing will reinstate this rail crossover point. The application area is adjacent to the railway line and located approximately 47 kilometres south of Roebourne. Vegetation will be cleared using a dozer with the blade down. Vegetation will be stockpiled and used in rehabilitation.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994). To: Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).	The vegetation condition was assessed by botanists from Biota Environmental Sciences (Biota, 2008a). 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.

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 Chichester subregion of the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by plains supporting a shrub steppe of *Acacia inaequilatera* over *Triodia wiseana* hummock grasslands, while *Eucalyptus leucophloia* tree steppes occur on ranges (CALM, 2002).

The vegetation within the application area is broadly mapped as Beard vegetation associations 93 and 152, both of which have approximately 100% of their pre-European extent remaining (Shepherd, 2009; GIS Database). Biota Environmental Sciences conducted a flora and vegetation survey of the proposed Rio Tinto rail duplication corridor in April 2008, which included the application area (Biota, 2008a). One vegetation type was mapped within the application area and this belonged to the broader landscape category of 'Vegetation of stony hills and plains' (Biota, 2008a). The vegetation type present within the application area is widely distributed within the Chichester subregion (Biota, 2008a).

No Declared Rare Flora, Priority Flora species, Threatened Ecological Communities or Priority Ecological Communities were recorded within the application area (Biota, 2008a; GIS Database).

Seventeen introduced flora species were recorded during the flora and vegetation survey (Biota, 2008a). Buffel Grass (*Cenchrus ciliaris*) was especially prevalent in areas close to the existing rail line (Biota, 2008a), where the application area is located (GIS Database). Care must be taken to ensure that the proposed clearing activities do not spread or introduce weed species to non-infested areas. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A large fauna survey was undertaken by Biota Environmental Sciences in April 2008 over the proposed rail duplication area from Cape Lambert to Emu Siding. The study area was approximately 80 kilometres in length and included the application area (Biota, 2008b). The survey recorded 53 avifauna, 16 native mammal, three introduced mammal, three amphibian and 43 reptile species (Biota, 2008b). This fauna assemblage is similar to those recorded by other surveys in the region and does not appear to indicate a particularly diverse assemblage (Biota, 2008b).

The application area is adjacent to existing railway infrastructure and part of it has already been cleared or disturbed (Rio Tinto, 2010; GIS Database). Considering the amount of disturbance already present, and the wide availability of the vegetation association and fauna habitat type, the application area is not likely to comprise a greater diversity than similar areas either locally or at a bioregional scale.

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

Methodology

Biota (2008a)
Biota (2008b)
CALM (2002)
Rio Tinto (2010)
Shepherd (2009)
GIS Database:
- Cooya Pooya 1.4 m Orthomosaic - Landgate 1998
- Declared Rare and Priority Flora List
- IBRA WA (Regions - Subregions)
- Pre-European Vegetation
- Threatened Ecological Sites Buffered

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments

Proposal is not likely to be at variance to this Principle

A large fauna survey was undertaken by Biota Environmental Services in April 2008 over the proposed rail duplication area from Cape Lambert to Emu Siding. The study area was approximately 80 kilometres in length and included the application area (Biota, 2008b).

The primary fauna habitat type of 'Rocky hill slopes with *Triodia* sp. sometimes with scattered *Acacia* sp.' was described for a nearby trapping site used in the survey (Biota, 2008b). The survey site is located approximately 1 kilometre from the application area and, based on orthophotos, the application area is likely to comprise of the same habitat type (GIS Database). This fauna habitat was well represented in the survey area (Biota, 2008b). The application area does not contain significant habitat features such as watercourses, gorges or caves (Rio Tinto, 2010). The vegetation within the application area may be utilised by a variety of fauna but the extent of similar habitat outside the application area means it is unlikely to provide core habitat for any fauna species.

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

Methodology Biota (2008b)
Rio Tinto (2010)
GIS Database:
- Cooya Pooya 1.4 m Orthomosaic - Landgate 1998

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

Comments

Proposal is not likely to be at variance to this Principle

According to available databases there are no known records of Declared Rare Flora (DRF) within the application area (GIS Database). The nearest record of DRF is located approximately 175 kilometres south-east of the application area (GIS Database).

A flora and vegetation survey of the application area and the proposed rail duplication corridor was conducted by Biota botanists in April 2008 (Biota, 2008a). No DRF species were recorded during the survey (Biota, 2008a).

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

Methodology Biota (2008a)
GIS Database:
- Declared Rare and Priority Flora List

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

Comments

Proposal is not likely to be at variance to this Principle

A search of available databases revealed there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest recorded TEC, *Themeda* grasslands on cracking clays, is located approximately 110 kilometres south-east of the application area (GIS Database).

No TECs were identified during the flora and vegetation survey conducted by Biota botanists over the application area or the rest of the rail corridor survey area (Biota, 2008a).

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

Methodology Biota (2008a)
GIS Database:
- Threatened Ecological Sites Buffered

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

Comments

Proposal is not at variance to this Principle

The clearing application area falls within the Pilbara Interim Biogeographic Regionalisation for Australia (IBRA) bioregion in which approximately 99.9% of the pre-European vegetation remains (see table) (Shepherd, 2009; GIS Database). This gives it a conservation status of 'Least Concern' according to the Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment, 2002).

The vegetation of the clearing application area has been broadly mapped as the following Beard vegetation associations:

93: Hummock grasslands, shrub steppe; kanji over soft spinifex; and
152: Hummock grasslands, grass steppe; soft and hard spinifex (GIS Database).

According to Shepherd (2009) approximately 100% of both of these Beard vegetation associations remains at the state and bioregional levels. These vegetation associations would be given a conservation status of 'Least Concern' at both a state and bioregional level (Department of Natural Resources and Environment, 2002).

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

	Pre-European Area (ha)*	Current Extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion – Pilbara	17,804,193	17,785,001	~99.9	Least Concern	6.3
Beard Veg Assoc. – State					
93	3,044,308	3,044,249	~100	Least Concern	0.4
152	306,407	306,407	~100	Least Concern	2.2
Beard Veg Assoc. – Bioregion					
93	3,042,113	3,042,064	~100	Least Concern	0.4
152	177,946	177,946	~100	Least Concern	3.8

* Shepherd (2009)
** Department of Natural Resources and Environment (2002)

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

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

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

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

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

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

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

Comments **Proposal is not likely to be at variance to this Principle**
According to available datasets the application area is within the Capricorn Land System (GIS Database). The Capricorn Land System is characterised by hills and ridges of sandstone and dolomite supporting shrubby hard and soft spinifex grasslands (Van Vreeswyk et al., 2004). The stony surfaces of the landforms in this land system provide resistance to erosion (Van Vreeswyk et al., 2004).

Hamersley Iron Pty Ltd has applied to clear up to 0.3 hectares to construct access tracks. The proposed clearing activities are not likely to result in large areas of disturbed or open land. Given the small size of the proposed activities, the clearing is not likely to result in appreciable land degradation.

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**
Part of the application area is within the Department of Conservation and Environment (DEC) managed

conservation estate Millstream Chichester National Park (GIS Database). Approximately 30% of the application area lies within the existing infrastructure exclusion corridor from the National Park, while the rest of the application area is within the National Park boundary (Rio Tinto, 2010). The application area is also within the Register of National Estate site 'Chichester Range National Park (1977 Boundary)' (GIS Database) which directly relates to the currently named Millstream Chichester National Park.

The vegetation within the application area is in a completely degraded to good condition (Biota, 2008a). The proposed clearing is to reinstate a detour track to the rail crossing at the 74.4 kilometre mark on the Tom Price mainline and the historical disturbance is still visible in aerial photographs (Robe River Mining Co. Pty Ltd, 2011). The historical disturbance and close proximity to existing infrastructure has reduced the environmental values of the application area when compared to other areas within Millstream Chichester National Park.

Advice from DEC's Environmental Management Branch stated that rehabilitation and weeds were the main issues relating to the proposed clearing (DEC, 2011a). A Mining Proposal has been submitted to the Department of Mines and Petroleum titled 'Reinstatement of the 74.4 kilometre Mark Rail Crossover Point on the Dampier Tom Price Railway Line' for activities related to the proposed clearing. All proposed activities, including the proposed clearing, will be conducted in accordance with the Mining Proposal (Robe River Mining Co. Pty Ltd, 2011). The Mining Proposal addresses the environmental impacts and their management and involved consultation with officers from the DEC Pilbara Region. Weed hygiene and control measures will be implemented in accordance with the Iron Environmental Management System Equipment Hygiene Inspections document (Robe River Mining Co. Pty Ltd, 2011). The rail crossover point will be used for the life of the rail operations in the Pilbara which will be in excess of 30 years. The infrastructure associated with the rail crossover point will be removed from site and be recycled or disposed of in a suitable manner at the time of the decommissioning of the rail network. The footprint of the site will be rehabilitated so as to form a safe and stable landform, all compacted areas will have any previously stockpiled vegetation re-applied and the site will be ripped to eliminate the effects of compaction (Robe River Mining Co. Pty Ltd, 2011). Given the management procedures in place, the DEC approves the proposed activities (DEC, 2011b).

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

Methodology

Biota (2008a)
DEC (2011a)
DEC (2011b)
Rio Tinto (2010)
Robe River Mining Co. Pty Ltd (2011)
GIS Database:
- DEC Tenure
- Register of National Estate (Status)

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

Comments

Proposal is not likely to be at variance to this Principle

The application area is located within the Harding Dam Catchment Area, a Public Drinking Water Source Area (PDWSA) (GIS Database). The Harding Dam Catchment Area has been assigned a 'Priority 1' classification and roads pose a water contamination risk. The Department of Water (DoW) has advised that the clearing application is acceptable provided activities are carried out in accordance with DoW's 'Water Quality Note 44: Roads Near Sensitive Water Sources' (DoW, 2011). This not provides advice on road design to avoid impacts within PDWSAs.

There are no creeklines, wetlands or watercourses within the application area (GIS Database). Western Creek is a significant creekline approximately 350 metres south-east of the application area and there are also several minor ephemeral drainage lines in the vicinity (GIS Database). These drainage lines would only hold surface water for short durations following significant rainfall events. Sediment loads are typically high in flowlines in the Pilbara following large rainfall events and any increase to the sediment load caused by the proposed clearing is likely to be negligible (Rio Tinto, 2010).

The small area of the proposed clearing is unlikely to cause deterioration in the quality of surface or underground water.

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

Methodology

DoW (2011)
Rio Tinto (2010)
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 Harding River catchment area of the Port Hedland Coast basin (GIS Database). Given the size of the area to be cleared (0.3 hectares) in relation to the size of the catchment area (155,807 hectares) (GIS Database), the proposed clearing is not likely to increase the potential of flooding on a local or catchment scale.

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

Methodology

GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There is one Native Title Claim (WC99/14) over the area under application (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

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

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

The clearing permit application was advertised on 25 July 2011 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology

GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Determined by the Federal Court

4. References

Biota (2008a) A Vegetation and Flora Survey of the Rio Tinto Rail Duplication Project - Cape Lambert to Emu Siding. Report Prepared by Biota Environmental Sciences for Rio Tinto Iron Ore, August 2008.

Biota (2008b) Rio Tinto Rail Duplication Fauna Survey Cape Lambert to Emu Siding. Report Prepared by Biota Environmental Sciences for Rio Tinto Iron Ore, July 2008.

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

DEC (2011a) DEC Advice for Clearing Permit Application CPS 4491/1. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Mines and Petroleum (DMP). Department of Environment and Conservation Environmental Management Branch, Western Australia.

DEC (2011b) DEC Advice for Mining Proposal Reinstatement of the 74.4 km Mark Rail Crossover Point. Advice to Assessing Officer, Minerals Environment Branch, Department of Mines and Petroleum (DMP). Department of Environment and Conservation Pilbara Region, 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.

DoW (2011) Public Drinking Water Source Area (PDWSA) Advice. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Mines and Petroleum (DMP). Department of Water, Western Australia.

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 (2010) Statement Addressing the 10 Clearing Principles 74.4 TPML Road Detour. Unpublished Report Prepared by Rio Tinto, December 2010.

Robe River Mining Co. Pty Ltd (2011) Reinstatement of the 74.4 km Mark Rail Crossover Point on the Dampier Tom Price Railway Line Mining Proposal. Report Prepared by Robe River Mining Co. Pty Ltd, August 2011.

Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

Trudgen, M.E. (1988) A Report on the Flora and Vegetation of the Port Kennedy Area. Unpublished Report Prepared for Bowman Bishaw and Associates, West Perth.

Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) Technical Bulletin - An Inventory and Condition Survey of the Pilbara Region, Western Australia, No. 92. Department of Agriculture, Government of Western Australia, Perth, Western Australia.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs
DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

Definitions:

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

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

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

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

special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

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

P1 **Priority One: Taxa with few, poorly known populations on threatened lands**: Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P2 **Priority Two: Taxa with few, poorly known populations on conservation lands**: Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P3 **Priority Three: Taxa with several, poorly known populations, some on conservation lands**: Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P4 **Priority Four: Taxa in need of monitoring**: Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.

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

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

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

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

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

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

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

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