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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4535/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Tamas Kapitany**

1.3. Property details

Property: Mining Lease 09/109
Local Government Authority: Shire of Carnarvon
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 26 April 2012

2. Background

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. One Beard vegetation association is located within the application area (GIS Database; Shepherd, 2009): 264: Low woodland; *Acacia victoriae* & snakewood.	The applicant proposes to clear 5.36 hectares of native vegetation for the purpose of Mineral Production. The proposal will allow for the extraction of diatomaceous Chert (Mookaite) for commercial sale in the lapidary and stone cutting market (McKenzie, 2011).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994); To: Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).	The application area is located approximately thirty one kilometres north-west of Gascoyne Junction (GIS Database). The vegetation condition was derived using information provided by the proponent and available aerial imagery.

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 may be at variance to this Principle

The application area occurs within the Wooramel (CAR2) subregion of the Carnarvon Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). The Wooramel subregion includes the southern and central parts of the Carnarvon Basin. Alluvial plains are associated with downstream sections and deltas of the Gascoyne, Minilya and Wooramel Rivers. This subregion includes Lake MacLeod and the Kennedy Range and vegetation types consist of tree to shrub steppe over hummock grasslands on and between aeolian red sand dunefields which are extensive in the north and east as well as on top of the Kennedy Range. Permian sediments are common in northern parts. Southern areas comprise limestone plateaux overlain by red sand plains with Acacia shrublands (Mulga, Bowgada and *A. coriacea*) over bunch grasses on red sandy ridges and plains (CALM, 2002). The vegetation within the application area consists of Beard vegetation association 264, which is common and widespread throughout the Carnarvon bioregion with approximately 100% of the pre-European vegetation extent remaining (Shepherd, 2009; GIS Database).

A search of the Department of Environment and Conservation's (DEC) NatureMap database identified a total of 58 flora species, belonging to 47 genera from 31 families, recorded in the local area (15 kilometre radius) (NatureMap, 2011). There are two records of the Priority Flora (P3) species *Gymnanthera cunninghamii* located 13 kilometres north of the application area and one record of conservation significant fauna (Peregrine Falcon - *Falco peregrinus)* (GIS Database; NatureMap, 2011). Considering the small size of the area to be cleared (5.36 hectares) and the large tracts of intact native vegetation which exist in the local area and neighbouring Kennedy Range National Park and DEC managed former Mooka pastoral lease, the area to be

cleared is not likely to provide significant habitat for these species in a local or regional context.

There are no records of Threatened flora or Threatened Ecological Communities within the local area, however, the area proposed for clearing is located within the buffer of a Priority Ecological Community (PEC) (GIS Database). This PEC is the Mooka Spring which forms one of a number of PECs known collectively as Springs of the Western Kennedy Ranges. The PEC is located within the DEC managed former Mooka pastoral lease 1 kilometre west of the Kennedy Range National Park.

Advice received from DEC highlights that the Mooka Spring and the associated Mooka Creek represent a regionally significant aquatic system. Based on the flora and aquatic invertebrate species, it represents the best example of this wetland type in the Carnarvon Basin (DEC, 2011). Mooka Spring contains a species-rich aquatic invertebrate community typical of larger streams and rivers in the Carnarvon region. It is also associated with a number of flora species, in combination with an intact understorey (often not seen due to grazing pressures) (DEC, 2011). Permanent pools located upstream of the application area in Mooka Creek are significant and constitute the largest intact wetland system on the western side of the Kennedy Range (DEC, 2011).

Approximately 3.5 hectares of the 5.36 hectare application area is located within vegetation associated with the floodplain of Mooka Creek (GIS Database). It is likely that the permanent pools and floodplain areas contain similar values to the Mooka Spring PEC (DEC, 2011). Given that the area proposed for clearing is located within the buffer of the Mooka Spring PEC and the floodplain of Mooka Creek, the vegetation to be cleared may represent an area of increased biological diversity.

Based on the above, the proposed clearing may be at variance to this Principle.

Methodology

CALM (2002)
DEC (2011)
Keighery (1994)
NatureMap (2011)
Shepherd (2009)
GIS Database:
- IBRA WA (regions - subregions)
- Pre-European Vegetation
- Hydrography, Linear
- Threatened Ecological Sites Buffered
- Kennedy Ranges 1.4m Orthomosaic - Landgate 2002

(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 may be at variance to this Principle

The vegetation within the application area consists of Beard vegetation association 264, which is common and widespread throughout the Carnarvon bioregion with approximately 100% of the pre-European vegetation extent remaining (Shepherd, 2009; GIS Database). The native vegetation to be cleared is in 'degraded' to 'good' condition (Keighery, 1994).

A search of the Department of Environment and Conservations (DEC) NatureMap database identified one record of conservation significant fauna (Peregrine Falcon - *Falco peregrinus)* within a 15 kilometre radius (NatureMap, 2011). This species is considered to be highly mobile covering a large range across Western Australia. Considering the small size of the area to be cleared (5.36 hectares) and the large tracts of intact native vegetation which exist in the local area and neighbouring Kennedy Range National Park and DEC managed former Mooka pastoral lease, the area to be cleared is not likely to provide significant habitat for this species.

The area proposed for clearing is located within the buffer of a Priority Ecological Community (PEC) (GIS Database). This PEC is the Mooka Spring which forms one of a number of PECs known collectively as Springs of the Western Kennedy Ranges. The PEC is located within the DEC managed former Mooka pastoral lease, 1 kilometre west of the Kennedy Range National Park.

Advice received from DEC highlights that the Mooka Spring and the associated Mooka Creek represent a regionally significant aquatic system. Based on the flora and aquatic invertebrate species, it represents the best example of this wetland type in the Carnarvon Basin (DEC, 2011). Mooka Spring contains a species-rich aquatic invertebrate community typical of larger streams and rivers in the Carnarvon region. Permanent pools located upstream of the application area in Mooka Creek are significant and constitute the largest intact wetland system on the western side of the Kennedy Range (DEC, 2011).

Approximately 3.5 hectares of the 5.36 hectare application area is located within vegetation associated with the floodplain of Mooka Creek (GIS Database). It is likely that the permanent pools and floodplain areas contain similar values to the Mooka Spring PEC (DEC, 2011). Given that the area proposed for clearing is located within the buffer of the Mooka Spring PEC and the floodplain of Mooka Creek, the vegetation to be cleared may represent significant habitat for fauna indigenous to Western Australia.

Based on the above, the proposed clearing may be at variance to this Principle.

Methodology DEC (2011)
Keighery (1994)
NatureMap (2011)
Shepherd (2009)
GIS Database:
- Pre-European Vegetation
- Hydrography, Linear
- Threatened Ecological Sites Buffered
- Kennedy Ranges 1.4m Orthomosaic - Landgate 2002

(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**
There are no records of Threatened Flora within the application area or within a 15 kilometre radius of the application area (GIS Database; NatureMap, 2011).

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

Methodology NatureMap (2011)
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 known Threatened Ecological Communities (TEC's) within the local area (15 kilometre radius) and the closest known TEC is located approximately 365 kilometres northeast of the application area (GIS Database).

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

Methodology GIS Database:
- Threatened Ecological Sites Buffered

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

Comments **Proposal is not at variance to this Principle**
The application area falls within the Carnarvon IBRA bioregion (GIS Database). Shepherd (2009) reports that approximately 99.6% of the pre-European vegetation within this bioregion still exists.

One Beard vegetation association is located within the application area (GIS Database; Shepherd, 2009):

264: Low woodland; *Acacia victoriae* & snakewood.

According to Shepherd (2009), Beard vegetation associations 264 retains approximately 100**%** of its pre-European extent which is more than the 30% threshold level recommended in the National Objectives Targets for Biodiversity Conservation below which, species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Carnarvon	8,382,609	8,349,861	~99.6	Least Concern	3.62
Beard vegetation associations - State					
264	581,128	581,128	~100	Least Concern	0.17
Beard vegetation associations - Bioregion					
264	503,682	503,682	~100	Least Concern	0.19

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

Given that the vegetation is well represented locally and regionally the vegetation within the proposed area is not likely to be significant as a remnant in a highly cleared landscape.

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

Methodology Department of Natural Resources and Environment (2002)
EPA (2000)
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 at variance to this Principle**
Approximately 3.5 hectares of the 5.36 hectare application area is located within vegetation associated with the floodplain of Mooka Creek, a non-perennial watercourse. Given that the area proposed for clearing is located within the riparian vegetation of a watercourse, the vegetation to be cleared is considered to be growing in association with a watercourse or wetland.

The area proposed for clearing is also located within the buffer of a Priority Ecological Community (PEC) (GIS Database). This PEC is the Mooka Spring which forms one of a number of PECs known collectively as Springs of the Western Kennedy Ranges. The spring is located within the DEC managed former Mooka pastoral lease, 1 kilometre west of the Kennedy Range National Park.

Permanent pools located upstream of the application area in Mooka Creek are significant and constitute the largest intact wetland system on the western side of the Kennedy Range (DEC, 2012). It is likely that the permanent pools and the floodplain areas within the application area contain similar values to the Mooka Spring PEC (DEC, 2011).

Based on the above, the proposed clearing is at variance to this Principle.

Methodology DEC (2011)
GIS Database:
- Hydrography, Linear
- Threatened Ecological Sites Buffered

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

Comments **Proposal may be at variance to this Principle**
The application area comprises predominantly of the Cahill land system with a small area falling within the Billy land system (GIS Database).

The Cahill land system is comprised of sandy alluvial plains and channelled flow zones with tall shrublands of various acacias. Areas of this land system may be susceptible to erosion (mainly by water) when vegetation is removed (Van Vreeswyk et al., 2004). The Billy land system is comprised of low plateaux, mesas and buttes with stony footslopes and narrow drainage floors, supporting scattered tall shrublands of mulga and other acacias. This system is not susceptible to erosion (Van Vreeswyk et al., 2004).

Given the above there may be an increased chance of water erosion within the flow zone of the Mooka creek when vegetation is removed. The vegetation of the application area is located within the floodplain of the

Mooka Creek and forms a stabilised system containing permanent vegetation. Advice provided by the Department of Environment and Conservation highlights that the removal of native vegetation from this system has the potential to cause significant disturbance to Mooka Creek, resulting in considerable erosion (DEC, 2011).

Based on the above, the proposed clearing may be at variance to this Principle.

Methodology DEC (2011)
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 may be at variance to this Principle

The application area is located within the DEC managed former Mooka pastoral lease, 1 kilometre west of the Kennedy Range National Park (GIS Database).

Given the size of the area to be cleared it is not likely that the clearing of 5.36 hectares will directly impact upon the National Park. However, considering the location of the clearing within a watercourse and the DEC managed former Mooka pastoral lease there is potential for the spread of weeds through the movement of machinery to the proposed conservation area. Potential impacts to the National Park and DEC managed pastoral lease as a result of the clearing may be minimised by the implementation of a weed management condition.

The area proposed for clearing is located within the buffer of a Priority Ecological Community (PEC) (GIS Database). This PEC is the Mooka Spring which forms one of a number of PECs known collectively as Springs of the Western Kennedy Ranges. The PEC is located within the DEC managed former Mooka pastoral lease 1 kilometre west of the Kennedy Range National Park.

Advice received from DEC highlights that the Mooka Spring and the associated Mooka Creek represent a regionally significant aquatic system. Based on the flora and aquatic invertebrate species, it represents the best example of this wetland type in the Carnarvon Basin (DEC, 2011). Mooka Spring contains a species-rich aquatic invertebrate community typical of larger streams and rivers in the Carnarvon region. It is also associated with a number of flora species, in combination with an intact understorey (often not seen due to grazing pressures) (DEC, 2011). Permanent pools located upstream of the application area in Mooka Creek are significant and constitute the largest intact wetland system on the western side of the Kennedy Range (DEC, 2011).

Approximately 3.5 hectares of the 5.36 hectare application area is located within vegetation associated with the floodplain of Mooka Creek (GIS Database). It is likely that the permanent pools and floodplain areas contain similar values to the Mooka Spring PEC (DEC, 2011). Given that the area proposed for clearing is located within the buffer of the Mooka Spring PEC and the floodplain of Mooka Creek, the proposed clearing may impact upon the environmental values of the DEC managed Mooka pastoral lease.

Based on the above, the proposed clearing may be at variance to this Principle.

Methodology DEC (2011)
GIS Database:
- DEC Tenure
- Hydrography, Linear

(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 area under application is not located within a Public Drinking Water Source Area (PDWSA). The Carnarvon region has an arid environment however approximately 3.5 hectares of the 5.36 hectare application area is located within vegetation associated with the floodplain of Mooka Creek, a minor non-perennial watercourse (GIS Database).

This area is likely to be subject to seasonal flooding and although there may be a risk of some sedimentation through water erosion this is unlikely to substantially decrease the quality of surface water which is only likely to occur during and immediately following significant rainfall events.

Given the small size of the area to be cleared (5.36 hectares) it is not likely that the removal of native vegetation will 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 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

Approximately 3.5 hectares of the 5.36 hectare application area is located within vegetation associated with the floodplain of Mooka Creek, a minor non-perennial watercourse (GIS Database). This area is subject to seasonal flooding immediately following significant rainfall events and the removal of 5.36 hectares of native vegetation is not likely to exacerbate the incidence or intensity of these flood events.

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

Methodology GIS Database:
- Hydrography, Linear

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

There is one Native Title Claim (WC97/28) 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 22 August 2011 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

The proponent has applied to clear 5.36 hectares of native vegetation. Advice provided by the Department of Mines and Petroleum's (DMP), Minerals Branch (DMP, 2012) has identified that the tenement conditions of the adjacent Mining Lease (M09/18) require a buffer to be maintained to the riparian vegetation of the Mooka Creek floodplain which is included in this clearing permit application. Advice from the DMP Minerals Branch identifies that, should a proposal be received for activities upstream of the buffer line, that further information on hydrological assessment would be requested from the proponent to satisfy the Department of Environment and Conservations (DEC) concerns over the protection of upstream wetlands which extend into the Kennedy Range National Park. It is the intention of DMP's Minerals Branch to impose a buffer condition on M09/109 consistent with that placed on adjacent tenement M09/18.

Given the high environmental values associated with the area applied to be cleared only 1.87 hectares of the vegetation applied to be cleared has been approved for clearing consistent with the buffer required by the tenement conditions of adjacent Mining Lease M09/18.

Methodology DEC (2011)
DMP (2012)
GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Registered with the NNTT

4. References

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Pilbara 3 (PIL3 - Hamersley subregion) Department of Conservation and Land Management, 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.

DEC (2011) Advice received from Department of Environment and Conservation. Clearing Permit application CPS 4535/1. Email to Assessing officer dated 9 December 2009.

DMP (2012) Advice received from Minerals Branch, Department of Mines and Petroleum. Clearing Permit application CPS 4535/1. Email to Assessing officer dated 3 February 2012.

EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.

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

McKenzie (2011) Clearing Permit Supporting Information. 2011.

NatureMap (2011) Department of Environment and Conservation database accessed 17 October 2011.

Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in

Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A & Hennig, P. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia, Department of Agriculture, Western Australia.

5. 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.