



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3392/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: **MMG Golden Grove Pty Ltd**

1.3. Property details

Property: Mining Lease 59/90

Local Government Area: Yalgoo

Colloquial name: MMG Golden Grove Operations Project

1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|---------------------|
| 14.3 | | Mechanical Removal | Gravel Extraction |

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

| Vegetation Description | Clearing Description | Vegetation Condition | Comment |
|--|---|---|---|
| <p>Beard Vegetation Associations have been mapped at a 1:250,000 scale for the whole of Western Australia. One Beard Vegetation Association has been mapped within the application area (GIS Database):</p> <p>420: Shrublands; bowgada and jam scrub (Desmond and Chant, 2001).</p> <p>Yilgarn Traders conducted a vegetation survey of the MMG Golden Grove mine site between 2006 and 2009. Mattiske Consulting Pty Ltd also conducted a vegetation survey site in October 1996. Vegetation was mapped at a scale of 1:10,000. Based on these surveys, the proposed clearing area can be described as follows (MMG, 2009):</p> <p>1) Open low woodland or tall shrubland of mixed Acacia species dominated by <i>Acacia ramulosa</i> and <i>Acacia sabina</i> over scattered shrubs and dense annual species dominated by mixed Asteraceae species and <i>Austrostipa trichophylla</i> in sandy loam.</p> | <p>The clearing permit application is for an area permit to clear up to 14.3 hectares of native vegetation at the MMG Golden Grove mine site. The application area is located approximately 54 kilometres south-east of Yalgoo within mining tenement M59/90 on historically disturbed land. Clearing is required for the purpose of gravel extraction. The gravel resources will be used in order to accommodate the future expansion of the MMG Golden Grove operations (MMG, 2009).</p> <p>The vegetation will be removed using a loader and the topsoil will then be removed using a loader and/or bulldozer. The vegetation and topsoil will be progressively removed as required and stockpiled separately and incorporated to ongoing progressive rehabilitation programs (MMG, 2009).</p> | <p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).</p> <p>To</p> <p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).</p> | <p>The vegetation descriptions were derived from descriptions by MMG Golden Grove (MMG, 2009).</p> <p>The gravel borrow pit outlined in this Clearing Permit application has previously been approved for clearing by the former Department of Industry and Resources (now Department of Mines and Petroleum) under CPS 1678/1. This permit expired on the 18 May 2009. Strategic planning of MMG Golden Grove has identified that the remaining gravel resources on site will be insufficient to accommodate the increasing amount of gravel required for future development and expansion projects. As a result, MMG has identified the requirement to develop a 14.3 hectare gravel borrow pit within mining tenement M59/90 which was not cleared under the previous Clearing Permit.</p> |

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal is not likely to be at variance to this Principle

The area applied to clear is within the Yalgoo Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). The Yalgoo bioregion is an interzone between the South-western and Murchison bioregions, and whilst it is rich and diverse in both flora and fauna, most species are wide ranging and typically occur in one or more adjoining bioregions (MMG, 2009). Pastoralism is the dominant land use in Yalgoo, comprising approximately 76% of the total land area, although mining also has an increasing interest in the bioregion (MMG, 2009). The proposed clearing is in the MMG Golden Grove mine site, located approximately 53 kilometres south-east of Yalgoo town (GIS Database).

The vegetation of the application area includes Acacia woodlands and shrublands that are well represented throughout Western Australia (Shepherd, 2007). The application area is characterised by open low woodland or tall shrubland of mixed Acacia species dominated by *Acacia sabina* over scattered shrubs and dense annual species dominated by mixed Asteraceae species and *Austrostipa trichophylla* in sandy loam (MMG, 2009).

The proposed clearing area is within the Badja and Muralgarra pastoral stations (GIS Database), and as such the vegetation displays clear evidence of livestock grazing. Numerous goats have been observed in and surrounding the area applied to be cleared during the fauna survey (Coffey Environments, 2008). The presence of goats in the proposed clearing area has significantly impacted upon the condition of the vegetation (MMG, 2009). Other disturbances such as historic mineral exploration drill lines and drill pads are evident in the application area and have diminished the habitat values for indigenous fauna species.

Yilgarn Traders conducted a flora survey over the Golden Grove site between 25 November - 2 December 2008. A total of 96 vascular plants were identified, with one third of these being annuals (Yilgarn Traders, 2008). No Declared Rare Flora (DRF) or Priority Flora species were identified within the application area (Yilgarn Traders, 2008). Mattiske Consulting Pty Ltd (1997) also conducted a flora survey over the Golden Grove mine site area in 1996 and 1997, and found several Priority Flora species, however, none were located within the application area.

Coffey Environments conducted a fauna survey of the application area from 29 September - 1 October 2008. No habitat considered significant for the support of endemic fauna was identified within the application area (Coffey Environments, 2008). Fauna surveys also failed to identify any conservation significant species (Coffey Environments, 2008).

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

Methodology

Coffey Environments (2008)
MMG (2009)
Mattiske Consulting Pty Ltd (1997)
Shepherd (2007)
Yilgarn Traders (2008)
GIS Database:
-Badja 1.4M Orthomosaic
-Interim Biogeographic Regionalisation for Australia
-Pastoral Leases

(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

Coffey Environments on behalf of MMG Golden Grove, conducted a search of the Western Australian Museum on-line database (FaunaBase), the Department of Environment and Conservation's Threatened and Priority Species database and the Commonwealth Department of Environment, Water, Heritage and the Arts' *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* on-line database to determine the conservation significant species potentially found in the project area (Coffey Environments, 2008). This data was supported by information from other fauna surveys in the Yalgoo/Murchison/Midwest bioregions (Coffey Environments, 2008).

Based on the database searches above, it was identified that two species of conservation significance could potentially occur within the application area:

- *Leipoa ocellata* (Mallefowl) Schedule One (Fauna that is rare or is likely to become extinct) of the Wildlife Conservation (Specially Protected Fauna) Notice 2008(2); listed as 'Vulnerable' under the EPBC Act 1999; and

- *Cacatua leadbeateri* (Major Mitchell's Cockatoo) Schedule One (Fauna that is rare or is likely to become extinct) of the Wildlife Conservation (Specially Protected Fauna) Notice 2008(2);

Coffey Environments (2008) conducted a Level 1 fauna survey over the application area between 29 September - 1 October 2008. During the fauna survey, Coffey Environments (2008) conducted grid searches for active Malleefowl mounds and looked for trees containing hollows that may be suitable nesting sites for Major Mitchell's Cockatoo.

The available habitat types within the application area are replicated many times in adjacent areas, and although any loss of native vegetation should be minimised, clearing of the application area will not significantly impact on the fauna in the area or region (Coffey Environments, 2008).

No species of conservation significance were identified within the project area (MMG, 2009). There were no active Malleefowl mounds, nor trees that contained hollows that could be used as potential nesting sites for Major Mitchell's Cockatoo in the application area (Coffey Environments, 2008).

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

Methodology Coffey Environments (2008)
MMG (2009)

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

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

According to available GIS Databases there are no known records of Declared Rare Flora or Priority Flora within the application area (GIS Database).

Yilgarn Traders conducted a flora survey over the Golden Grove site between 25 November - 2 December 2008.. No Declared Rare Flora or Priority Flora species was identified within the application area during the study (MMG, 2009). Mattiske Consulting Pty Ltd also conducted a flora survey over the application area and its surrounding vegetation in 1996 and 1997, and found several Priority Flora species during the study, however none were located within the application area.

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

Methodology MMG (2009)
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 application area (GIS Database). The nearest known TEC is approximately 15 kilometres west, north-west 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 Communities

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

Comments Proposal is not at variance to this Principle

The application area is located within the Yalgoo Interim Biogeographic Regionalisation of Australia (IBRA) Bioregion (GIS Database). Shepherd (2007) report that approximately 98.91% of the pre-European vegetation still exists in the Pilbara Bioregion. The vegetation in the application area is broadly mapped as Beard Vegetation Association 420: Shrublands; bowgada and jam scrub (GIS Database; Desmond and Chant, 2001). According to Shepherd (2007) there is approximately 100% of this vegetation type remaining in the Yalgoo Bioregion and over 95% remaining in the State (see table below).

According to the Bioregional Conservation Status of Ecological Vegetation Classes, the conservation status for the Yalgoo Bioregion and Beard Vegetation Association 420 is of 'Least Concern' (Department of Natural Resources and Environment, 2002).

The areas proposed to clear do not represent significant remnants of vegetation in the wider regional area. The proposed clearing will not reduce the extent of Beard Vegetation Association 420 below current recognised

threshold levels, below which species loss increases significantly.

| | Pre-European area (ha)* | Current extent (ha)* | Remaining %* | Conservation Status** | Pre-European % in IUCN Class I-IV Reserves |
|------------------------------|-------------------------|----------------------|--------------|-----------------------|--|
| IBRA Bioregion - Yalgoo | 5,057,317 | 5,001,944 | ~98.91% | Least Concern | ~9.85% |
| Beard veg assoc. - State | | | | | |
| 420 | 859,632 | 829,286 | ~96.5% | Least Concern | ~0.1% |
| Beard veg assoc. - Bioregion | | | | | |
| 420 | 621,396 | 621,396 | ~100% | Least Concern | ~0% |

* Shepherd (2007)

** 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 (2002)
Desmond and Chant (2001)
Shepherd (2007)
GIS Database:
-Interim Biogeographic Regionalisation of Australia
-Pre European Vegetation

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

Comments Proposal is at variance to this Principle

There are no permanent watercourses or wetlands in close proximity to the area applied to be cleared (GIS Database). Two minor ephemeral drainage lines lay within the application area, one traversing the northern corner, and the other being the tail-end of a drainage line entering on the south-west. During times of rainfall, overland flows converge on these drainage lines (ANRA, 2007; MMG, 2009). These drainage lines are more of a dampland area than a watercourse, and as such are not associated with any prolonged flows (MMG, 2009).

The vegetation applied to clear is not growing in any watercourses or wetlands, and is unlikely to be acting as a buffer for any wetland areas. As such, no wetland communities are likely to be impacted by the proposed clearance activity.

Based on the above, the proposed clearing is at variance to this Principle given the presence of the ephemeral water courses.

Methodology ANRA (2007)
MMG (2009)
GIS Database:
-Hydrography, Linear

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

Comments Proposal may be at variance to this Principle

According to the Department of Agriculture's Technical Bulletin No. 90, 'An inventory and condition survey of the Sandstone-Yalgoo-Paynes Find area, Western Australia', the application area is comprised of the Tallering Land System and the Violet Land System (GIS Database; Payne et al., 1998).

The Tallering Land System consists of prominent ridges and hills of banded ironstone, dolerite and sedimentary rocks supporting bowgada and other acacia shrublands (Payne et al., 1998). The majority of the vegetation present appears to occur on the landform unit 'Stony plains/gravelly plains' (GIS Database; Payne et al., 1998).

The Violet Land System consists of undulating stony and gravelly plains and low rises supporting mulga shrublands (Payne et al., 1998). An analysis of aerial photography for the application area reveals it is most likely to occur within the 'Stony or gravelly hardpan plains' land unit (GIS Database; Payne et al., 1998).

Both land systems within the application area are provided effective protection against soil erosion due to their mantles. However, if soil surface or mantles are disturbed, erosion may be initiated or the soil may become

moderately susceptible to water erosion (Payne et al., 1998).

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

To reduce the likelihood of accelerated erosion and alteration of the natural sheet flow regime resulting from the proposed clearing, the proponent will implement the following measures:

- All clearing will be conducted along the contour where possible;
- Spur drains will be constructed to capture surface water runoff from the cleared areas;
- Appropriate dust control measures will be implemented during and after clearing when required. This will include the use of a water truck to suppress dust;
- Topsoil will be stockpiled to the edge of the disturbance for later use in rehabilitation (MMG, 2009).

Should the permit be granted, it is recommended that a condition be imposed on the permit requiring vegetative material and topsoil to be stockpiled for rehabilitation purposes.

Methodology MMG (2009)
Payne et al. (1998)
GIS Database:
-Badja 1.4M Orthomosaic
-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

There are no conservation areas within a 50 kilometre radius of the application area (GIS Database). The nearest conservation area is an unnamed timber reserve, located approximately 57 kilometres to the south-west (GIS Database). The proposed clearing is not likely to act as significant remnants, buffers, or ecological linkages to any conservation area given that they have been historically disturbed by mining activities and the surrounding landscape has not been extensively cleared.

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

Methodology GIS Database:
-Badja 1.4M Orthomosaic
-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 surface water features in the application area (GIS Database). Surface water may flow through the area under application during times of intense rainfall in the form of sheetflow and overland flow (MMG, 2009). It is anticipated that the gravel extraction area will have minimal impact on surface drainage because the extraction area will be designed such that (MMG, 2009):

- Surface runoff within the extraction area will be contained within temporary perimeter/toe drains and containment facilities located away from the extraction face, therefore preventing flooding at the extraction face and preventing uncontrolled discharge into surrounding areas;
- Surface runoff outside the gravel extraction area will be directed to existing drainage systems, i.e. existing spur drains to natural drainage systems;
- Surface runoff along existing access tracks will be managed using the standard drains and culvert crossings (where applicable) to prevent flooding and minimise erosion.

The approximate groundwater depth of the application area is 50-100 metres (MMG, 2009). It is therefore expected that the proposed vegetation clearing will not have any significant impacts upon groundwater levels or quality.

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

Methodology MMG (2009)
GIS Database:
-Hydrography, Linear

(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 average annual rainfall in the application area is 260 millimetres (MMG, 2009). Average annual evaporation is approximately 3,175.5 millimetres (MMG, 2009). It is therefore expected that there would be little surface water flowing during normal seasonal rains. There are no permanent watercourses in the vicinity of the application areas (GIS Database), and the clearing of 14.3 hectares of vegetation within the YarraMonger Catchment (4,182,397 hectares) is unlikely to increase the incidence or intensity of flooding (GIS Database).

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

Methodology MMG (2009)
GIS Database:
-Hydrography, Linear
-Hydrographic Catchments - Catchments

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

Comments

There are no native title claims over the area under application (GIS Database).

There are no known 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.

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.

No public submissions were received raising objections to this Proposal.

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

4. Assessor's comments

Comment

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

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

5. References

- ANRA (2007) Australian Natural Resources Atlas: Rangelands Over view; Yalgoo. Available online from: <http://www.anra.gov.au/topics/rangelands/overview/wa/ibra-yal.html> Accessed 23 November, 2009.
- Coffey Environments (2008) Golden Grove Fauna Assessment for a Proposed Third Tailing Storage Facility. Prepared for MMG Golden Grove Pty Ltd, December 2008.
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- Desmond, A., Chant, A. (2001) Yalgoo (Yal). In a Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management, pp 656-667.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske Consulting Pty Ltd (1997) Review of Priority Flora Species on Golden Grove Operational Areas. Prepared for Normandy Golden Grove Operations Pty Ltd, October 1997.
- MMG (2009) Application for a Clearing Permit (Area Permit) for Gravel Extraction on M59/90 - MMG Golden Grove Operations Project. MMG Golden Grove Pty Ltd, Western Australia.
- Payne, A. L., Van Vreeswyk, A. M. E., Pringle, H. J. R., Leighton, K. A., Hennig, P. (1998) Technical Bulletin No. 90: An inventory and condition survey of the Sandstone-Yalgoo-Paynes Find area, Western Australia. Department of Land Administration, Western Australia.
- Shepherd, D.P. (2007). Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- Yilgarn Traders (2008) MMG Golden Grove - Flora and vegetation mapping for TSF 3 footprint - site A. Yilgarn Traders, 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 in 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.