



1. Application details

1.1. Permit application details

Permit application No.: 2075/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Forrestania Gold NL

1.3. Property details

Property: Exploration Licence 77/85
Local Government Area: Shire of Yilgarn
Colloquial name: Milky Lake Project

1.4. Application

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

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>Beard vegetation associations have been mapped at 1:250,000 scale for the whole of Western Australia, and are a useful tool to examine the vegetation extent in a regional context. Two Beard vegetation associations are located within the area proposed to be cleared (GIS Database, 2007). These are:</p> <p>511: Medium woodland; salmon gum & morrel, and</p> <p>128: Bare areas; rock outcrops (Shepherd et al., 2001)</p> <p>Both of the Beard vegetation associations found in the application area are well represented in the bioregion (GIS Database).</p> <p>A flora survey of the application area was conducted by Paul Armstrong & Associates (2007). The survey identified two main vegetation associations from along the existing north-south access track and eastern drill pad. These associations are:</p> <p>a) <i>Eucalyptus calycogona</i> (Mallee): The upper stratum is Mallee dominated by <i>Eucalyptus calycogona</i> subsp. <i>calycogona</i> growing to 5 metres tall; over Scrub dominated by <i>Melaleuca sheathiana</i> growing to 3 metres tall; over Open Low Scrub with no species dominating; over Low Heath dominated by <i>Acacia erinacea</i> and <i>Acacia jennerae</i>. The soils are orangey clay loam.</p> <p>b) <i>Eucalyptus flocktoniae</i> (Mallee): The upper stratum is Woodland dominated by <i>Eucalyptus salmonophloia</i> growing to 2 metres tall; Very Open Shrub Mallee dominated by <i>Eucalyptus yilgarnensis</i> growing to 3 metres tall; over Scrub dominated by <i>Melaleuca sheathiana</i> growing to 3 metres tall; over Open Low Scrub with no species dominating; over Low Heath dominated by <i>Acacia erinacea</i>. The soils are orangey red clay loam.</p>	<p>The proposed clearing area lies within the Jilbadji Nature Reserve (GIS Database). Clearing will be required for drilling one exploration diamond drill hole off an existing gridline that runs off an existing track (Forrestania Gold, 2007). The drill site (including drill pad, sump, etc) will be approximately 30 to 40 metres long and up to 18 metres wide.</p> <p>The majority of vegetation found in the areas mentioned above has been cleared previously, however, there is some vegetation in the early stages of regeneration (Forrestania Gold, 2007).</p> <p>The total vegetation required to be cleared (excluding previously cleared areas) is approximately 0.05 hectares.</p>	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>Paul Armstrong & Associates (2007) advises that of the vegetation present, some of the regenerating vegetation was not in good condition. However areas that hadn't been cleared were in very good condition.</p> <p>There were no weeds identified within the application area from the flora survey (Paul Armstrong & Associates, 2007).</p>

There was one vegetation association recorded from

the area proposed for the western drill pad area (Paul Armstrong & Associates, 2007). This association is:

c) *Eucalyptus flocktoniae* (Mallee): The upper stratum is Mallee dominated by *Eucalyptus flocktoniae* subsp. *flocktoniae* growing to 12 metres tall with *Eucalyptus eremophila* subsp. *eremophila* growing to 5 metres tall; over Thicket dominated by *Melaleuca sheathiana* and *Melaleuca teuthidooides* growing to 3.5 metres tall; over Open Dwarf Scrub with no species dominating. The soils are creamy brown loamy clay.

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 is located within the Southern Cross Subregion of the Coolgardie Bioregion of the Interim Biogeographic Regionalisation of Australia (IBRA) (GIS Database). The biodiversity values of the subregion were assessed by Cowan et al., (2001). The subregion consists of diverse *Eucalyptus* woodlands (*Eucalyptus salmonopholia*, *E. salubris*, *E. transcontinentalis*, and *E. longicornis*) rich in endemic eucalypts that occur around salt lakes, on the low greenstone hills, valley alluvials and broad plains of calcareous earths (Cowan et al., 2001). The salt lake surfaces support dwarf shrublands of samphire (Cowan et al., 2001). The granite basement outcrops at mid-levels in the landscape, and supports swards of *Borya constricta*, with stands of *Acacia acuminata* and *Eucalyptus loxophleba* (Cowan et al., 2001).

A total of 30 native plant taxa from 14 families were identified from the areas surveyed on 14 June 2007 by Paul Armstrong & Associates (2007). During the flora survey no Declared Rare Flora or Priority Flora species were identified within the application area. Paul Armstrong & Associates (2007) have stated that all of the native species present were typical of the area, being common and widespread.

There were no weed species observed within the application area (Paul Armstrong & Associates, 2007). However, Forrestania Gold have committed to implement an Environmental Management Plan (EMP) which includes weed management measures to prevent the introduction of weeds within the Jilbadji Nature Reserve. The plan includes the following commitments:

- Prior to accessing the Nature Reserve areas, all vehicles, machinery and equipment will be cleaned to remove soil and plant propagules; and
- The restriction of vehicle movements to existing or newly constructed access tracks.

Based on the above it is recommended that should the permit be granted, a condition be placed on the permit to ensure Forrestania Gold implements weed management measures listed in the EMP.

Due to the small size of the proposed clearing and considering that the vegetation proposed to be cleared is well represented in the surrounding area, it is unlikely that the proposal will result in the clearing of native vegetation that has higher biodiversity values than that of the surrounding undisturbed vegetation.

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

Methodology

Cowan et al. (2001).
Paul Armstrong & Associates (2007).
GIS Database:
- Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00

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

Comments

Proposal is not likely to be at variance to this Principle

According to available databases, the nearest known record of fauna of conservation significance is approximately 10 kilometres west of the application area (GIS Database).

Based on the Western Australian Museum database search completed by the assessing officer, fauna of conservation significance that may occur within the application area are (Western Australian Museum, 2007):

- Chuditch (*Dasyurus geoffroyi*)
- Slender-billed Thornbill (*Acanthiza iredalei*)
- Carnaby's Cockatoo (*Calyptorhynchus latirostris*)
- Maleefowl (*Leipoa ocellata*)
- Carpet Python (*Morelia spilota imbricata*)
- Major Mitchell's Cockatoo (*Cacatua leadbeateri*)
- Red-tailed Black Cockatoo (*Calyptorhynchus banksii*)

Given the small area and temporary nature of the proposed clearing, the clearing is unlikely to affect the conservation status of the above species, or impact on significant fauna habitats. The fauna habitats within the application area are also well represented in the surrounding area (Paul Armstrong & Associates, 2007).

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

Methodology Cowan et al., (2001).
Paul Armstrong & Associates (2007).
Western Australian Museum (2007).
GIS Database:
- Threatened Fauna - CALM 30/9/05

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

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

A search of the Department of Environment and Conservation's (DEC) Rare Flora database for species occurring in the general area of the Parker Range was undertaken by Paul Armstrong & Associates (2007). The search area encompasses a radius of at least 30 kilometres around the target area (Paul Armstrong, 2007).

The search identified six Declared Rare Flora (DRF) species, and 62 taxa of Priority Flora having been recorded in the general vicinity, however, there were no DRF recorded within 10 kilometres of the project site (Paul Armstrong & Associates, 2007). The closest DRF recorded was *Banksia sphaerocarpa* var. *dolichostyla*, from a location approximately 20 kilometres south of the project, located adjacent to the Southern Cross Forrestania Road (Paul Armstrong & Associates, 2007). There were no Priority Flora recorded within 10 kilometres of the proposed drill site (Paul Armstrong & Associates, 2007).

A field survey was then conducted by Paul Armstrong & Associates on 14 June 2007. During the field inspection, no DRF, Priority Flora or other conservation significant species were recorded from anywhere within the application area, adjacent area, access tracks, or the proposed drill pad location (Paul Armstrong & Associates, 2007).

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

Methodology Paul Armstrong & Associates (2007).
GIS Database:
- Declared Rare and Priority Flora List - CALM 01/07/05

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

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

The closest known Threatened Ecological Community (TEC) to the application area is located approximately 17 kilometres to the south-west (GIS Database). Given the distance from the application area to the nearest TEC, and the small size of clearing required (0.05 hectares), the proposed clearing is unlikely to impact on the conservation of this TEC.

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

Methodology GIS Database:
- Threatened Ecological Communities CALM 12/04/05

(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

Vegetation within the application area has been classified as Beard vegetation associations 511 (Medium woodland; salmon gum & morel) and 128 (Bare areas; rock outcrops) (GIS Database). According to Shepherd et al. (2001), approximately 93.8% of Beard vegetation association 511 remains for the Coolgardie IBRA Bioregion, whilst there is approximately 99.6% of Beard vegetation association 128 remaining within the Coolgardie IBRA Bioregion.

The percentage of Beard vegetation association 511 in reserves or DEC managed land is 17.5% for the Coolgardie IBRA Bioregion, while there is approximately 10.4% of Beard vegetation association 128 within reserves or DEC managed lands for the Coolgardie IBRA Bioregion (Shepherd et al., 2001). Therefore, the proposed clearing does not pose a threat to the conservation status of this vegetation association.

The area proposed to be cleared does not represent a significant remnant of native vegetation in an extensively cleared area.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion – Coolgardie	12,912,208	12,707,623	~ 98.4	Least Concern	9.7 (9.9)
Beard veg assoc. – State					
128	329,872	280,953	~ 85.2	Least Concern	13.8 (15.4)
511	700,414	493,992	~ 70.53	Least Concern	14.1 (18.9)
Beard veg assoc. – Bioregion					
128	184,551	183,852	~ 99.6	Least Concern	10.4 (10.4)
511	464,427	435,796	~ 93.8	Least Concern	17.5 (18.6)

* Shepherd et al., (2001) updated 2005

** 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 et al. (2001).
GIS Database:
- Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00
- Pre European Vegetation DA 01/01

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

Comments **Proposal is not likely to be at variance to this Principle**
According to available databases (GIS Database), there are no drainage lines or watercourses within the application area. A minor drainage line is located approximately 250 metres west of the application area (GIS Database). It is unlikely that the proposal will affect vegetation growing in association with watercourses or wetlands.

No groundwater dependent ecosystems are known to occur in or near the application area (GIS Databases).

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

Methodology GIS Database:
- Geodata, Lakes - GA 28/06/02
- Hydrography, Linear - DoE 1/2/04
- Potential Groundwater Dependant Ecosystems - DoE 2004
- Rivers

(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**
The area proposed to be cleared is located on a relatively flat area of the landscape (GIS Database). Paul Armstrong & Associates (2007) have stated that the soils of the application area were clayey loams on a plain, and were unlikely to have a high erosion potential. There is a minor, non-perennial tributary located 250 metres to the west of the application area. It is likely that during rainfall, runoff will move via sheetflows towards this area (GIS Database). Given the topography present in the area applied to clear, it is unlikely that the erosion potential will be increased from the proposed clearing.

The proposed clearing area required for the diamond drilling rig is relatively small at approximately 18 metres by 40 metres (Forrestania Gold, 2007). The area applied to be cleared is 0.05 hectares and is proposed to be cleared by a raised blade method (Forrestania Gold, 2007). Additionally, drill holes have been sited on historical grid lines so the total footprint of disturbance is reduced. As a result it is unlikely that land degradation would result from such a small amount of clearing.

The application area is to be rehabilitated upon completion of exploration activities and Forrestania Gold have committed to completing rehabilitation activities within a six month period (Forrestania Gold, 2007).

Consequently the application area will not be left exposed for long periods after clearing occurs which will reduce the potential for erosion. There are a list of rehabilitation commitments listed within the EMP submitted by Forrestania Gold, which will ensure the potential for land degradation is minimised. These include:

- All tracks and other disturbed areas no longer required will be lightly scarified and available vegetative material will be dragged onto cleared areas to restrict third party access, minimise soil erosion and encourage regrowth.
- Any drill holes will be rehabilitated within six months to DoIR standards.
- Any drill holes or tracks that Forrestania Gold wish to leave unrehabilitated for follow up work programs at some time after the six month period will require the written consent of DoIR.
- All water sumps, trenches and holes will be filled in and lightly scarified for rehabilitation.

Based on the above it is recommended that should the permit be granted, a condition be placed on the permit to ensure Forrestania Gold implements rehabilitation management measures as listed in the EMP.

Given the small size of the clearing, the clearing methods to be used and the commitment from Forrestania Gold to implement rehabilitation measures listed within the EMP, it is unlikely that significant land degradation will result from the proposed clearing.

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

Methodology Forrestania Gold (2007).
Paul Armstrong & Associates (2007).
GIS Database:
Topographic Contours, Statewide - DOLA 12/09/02

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

Comments Proposal is at variance to this Principle

The proposed clearing is located wholly within the 'C'-class Jilbadji Nature Reserve and the 11.9 South Yilgarn Redbook area (GIS Database). Both of these areas have significant conservation values including a diversity of landforms and vegetation types such as sandplains, freshwater swamps, salt lakes with saltbush and samphire surrounds, uncut and regrowth eucalypt woodlands and granite complexes (Conservation Through Reserves Committee, 1974). There is a range of native flora within the nature reserve including eucalypts, wattles, banksia, bottlebrush, hakeas, melaleucas, sheoaks, sandalwood and grasstrees. There is also a wide range of fauna species which is representative of the South-West, but with Goldfields and desert influences (Conservation Through Reserves Committee, 1974).

Advice received from DEC on 30 January 2008 states that impacts associated with the proposal can be managed provided that the actions listed in Forrestania Gold's EMP are implemented (DEC, 2008). The actions listed within the EMP include information relevant to the management of waste, weeds, ground disturbance and protection of flora, dust, fires, water and control of ground water flows, noise, hydrocarbons, rehabilitation, and waste disposal and monitoring (Forrestania Gold, 2007). The assessing officer has reviewed the EMP and believes that the endorsement of conditions on any permit granted relating to weed management and rehabilitation will ensure that the commitments made within the EMP will be implemented.

Based on the above, the proposal is at variance to this Principle. However, the proposed clearing for exploration purposes is of a temporary nature, and rehabilitation will occur within 6 months of clearing activities (Forrestania Gold, 2007). Furthermore, the size of the proposed clearing is relatively small (0.05 hectares) in comparison to the total size of Jilbadji Nature Reserve (21,000 hectares), therefore the overall impacts to the Jilbadji Nature Reserve are likely to be minimal.

Methodology Cowan et al., (2001).
Conservation Through Reserves Committee (1974).
DEC (2008).
Forrestania Gold (2007).
GIS Database:
- CALM Managed Lands and Waters.
- System 1-5 and 7-12 areas

(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 not located within a Public Drinking Water Source Area (PDWSA) (GIS Database).

According to available databases, groundwater within the application area is saline at between 14,000 - 35,000 milligrams per litre of Total Dissolved Solids (GIS Database). The removal of 0.05 hectares of vegetation is unlikely to cause ground water levels to rise or increase in salinity. Given the size of the proposed clearing and

the already saline nature of the groundwater, the quality of the groundwater is unlikely to be impacted by the proposed clearing activity.

The application area experiences approximately 340 - 400 millimetres annual rainfall and average annual evaporation rates of 2,400 millimetres (GIS Database). Due to relatively low rainfall and high evaporation rates, there is likely to be little residual surface water within the application area, hence, the proposed clearing is not likely to reduce the quality of surface water.

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

Methodology GIS Database:
- Groundwater Salinity, Statewide - DoW Properties
- Hydrography, Linear - DoE 1/2/04
- Public Drinking Water Source Areas DoE 7/2/06
- Rivers 250K - GA

(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

There are no watercourses or drainage lines within the application area, although a minor drainage line is located approximately 250 metres to the west of the application area (GIS Database).

The climate of the subregion is an arid to semi-arid warm Mediterranean climate (Cowan et al., 2001). The application area receives an average annual rainfall of 340 - 400 millimetres, and average annual evaporation rates of 2,400 millimetres (GIS Database). Therefore, there is likely to be little likelihood of flooding during normal rainfall events.

The clearing of 0.05 hectares within the Swan Avon - Yilgarn catchment, which has a total area of more than 5.8 million hectares (GIS Database), is unlikely to result in an increase in flooding incidence or intensity.

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

Methodology Cowan et al. (2001).
GIS Database:
- Evaporation Isopleths - BOM 09/98
- Hydrographic Catchments - Catchments - DoE 23/3/05
- Hydrography, Linear - DoE 1/2/04
- Rainfall, Mean Annual - BOM 30/09/01
- Rivers 250K - GA

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

Comments

A submission letter was received from the Shire of Yilgarn on 10 October 2007, advising that they have no objections to the proposed clearing application.

Another submission letter was received on 4 October 2007 expressing concern that Aboriginal heritage issues may not have been addressed.

There is one native title claim over the area under application; WC99_029. This claim has been registered with the National Native Title Tribunal. However, the mining tenement has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (ie. 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 known Sites of Aboriginal Significance located in the application area (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.

Methodology GIS Database:
- Native Title Claims - DLI 7/11/05
- Sites of Aboriginal Significance DIA

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Mineral Exploration	Mechanical Removal	0.05	<p>The proposal has been assessed against the Clearing Principles and has been found not at variance to Principle (e), not likely to be at variance to Principles (a), (b), (c), (d), (f), (g), (i) and (j), and is at variance to Principle (h).</p> <p>Should the permit be granted, it is recommended that conditions be imposed on the permit for the purposes of weed control, rehabilitation, record keeping and permit reporting.</p>

5. References

- Cowan, M, Graham, G, & Mckenzie, M (2001) Coolgardie 1 (COO2 - Southern Cross Subregion) Subregional description and biodiversity values, dated August 2001. In: "A biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002". Report published by the Department of Conservation and Land Management, Perth, Western Australia.
- Conservation Through Reserves Committee (1974) Conservation Reserves in Western Australia, Report of the Conservation Through Reserves Committee to the Environmental Protection Authority 1974, Section two, Systems eight - twelve. Western Australia.
- DEC (2008) Advice to assessing officer, Native Vegetation Assessment Branch, Department of Industry and Resources, received 4 February 2008. Department of Environment and Conservation.
- 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.
- Forrestania (2007) Supporting information for clearing permit application.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Paul Armstrong & Associates (2007) Vegetation survey and rare flora search at the parker range prospect, conducted June 2007. Prepared for LionOre Australia (Nickel Limited). Unpublished Report dated August 2007.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Western Australian Museum (2007) URL: <http://www.museum.wa.gov.au/faunabase/prod/index.htm>

6. Glossary

Acronyms:

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

Definitions:

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

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

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

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

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

- P1 Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2 Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3 Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4 Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- P5 Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

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

- EX** **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W)** **Extinct in the wild:** A native species which:
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR** **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN** **Endangered:** A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU** **Vulnerable:** A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD** **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.