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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3137/2
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **La Mancha Resources Australia Pty Ltd**

1.3. Property details

Property: Mining Lease 15/688
Local Government Area: Shire of Coolgardie
Colloquial name: Frog's Leg Mine – Access Road

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.4436		Mechanical Removal	Mining Activity – access road

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard Vegetation Associations have been mapped at a 1:250,000 scale for the whole of Western Australia and are useful to look at vegetation extent in a regional context. The following two Beard Vegetation Associations are located within the application area (GIS Database): • 125 - Bare areas; salt lakes; and • 480 - Succulent steppe with open low woodland; mulga and sheoak over salt bush (Shepherd et al., 2001). Mattiske Consulting Pty Ltd (Mattiske) (2001; 2002) undertook flora and vegetation surveys that covered the Frog's Leg Mine project area and included the application area. Mattiske (2001; 2002) identified that two vegetation communities were present at the site of the proposed access road: **Vegetation Community 2d:** Mixed shrubland of *Eremophila scoparia*, *Dodonaea viscosa* subsp. *angustissima* over *Rhagodia drummondii, Cratystylis microphylla, Cratystylis subspinescens, Ptilotus obovatus* var. *obovatus, Olearia muelleri* and *Atriplex vesicaria* subsp. *appendiculata*. *Santalum spicatum* is also present. **Vegetation Community 3b:** Heath of *Melaleuca lateriflora* subsp. *lateriflora* and *Melaleuca sheathiana* over *Atriplex vesicaria* subsp. *appendiculata*, *Halosarcia pruinosa* and *Maireana triptera*. Outback Ecology (2006) undertook an additional desktop survey and one-day walkover flora survey of the Frog's Leg Mine and White Foil Mine pit areas (including the application area). Outback Ecology confirmed that Vegetation Community 2d was present at two (FL2 and FL3) of the four sites surveyed at the Frog's Leg Mine that were located adjacent to the application area (Outback Ecology, 2006). Botanica Consulting (Botanica) were commissioned to survey, identify and map the riparian vegetation surrounding the Frog's Leg Mine. The Botanica survey confirmed that the application area contained riparian vegetation (Botanica, 2008).	La Mancha Resources Australia Pty Ltd (hereafter referred to as La Mancha Resources) have applied for an Area Permit to clear up to 0.4436 hectares. The proposed clearing would allow the proponent to construct an access road. The application area is located approximately 19 kilometres east of Kalgoorlie and approximately 24 kilometres south-southwest of Coolgardie. Vegetation clearing will be conducted using mechanical means. The clearing is likely to be permanent for use during the life of the mine. As such, the majority of the cleared area will not be rehabilitated during the life of the clearing permit.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994) to Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).	The vegetation condition rating is derived from information provided by Outback Ecology (2006). Clearing permit CPS 3137/1 was granted by the Department of Mines and Petroleum on 25 June 2009, and is valid from 25 July 2009 to 31 July 2010. The clearing permit authorised the clearing of 0.4231 hectares of native vegetation. An application for an amendment to clearing permit CPS 3137/1 was submitted by La Mancha Resources Australia Pty Ltd on 24 August 2009. The proponent has requested an increase in the size of the area approved to clear by 0.0205 hectares. The size of the area and clearing area boundary that was approved to clear under clearing permit CPS 3137/1 will increase to 0.4436 hectares.

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

La Mancha Resources propose to clear 0.4436 hectares of native vegetation for construction of an access road at the existing Frog's Leg Mine. The application area is located within the Eastern Goldfields (COO3) subregion of the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) (GIS Database). This subregion is characterised by Mallees, Acacia thickets and shrubheaths on sandplains (CALM, 2002). Diverse *Eucalyptus* woodlands occur around salt lakes, on ranges and in valleys, and salt lakes support dwarf shrublands of samphire (CALM, 2002). The area is rich in endemic Acacias (CALM, 2002).

Outback Ecology (2006) conducted a desktop survey (based on the Dames and Moore (1999) and Mattiske (2001; 2002) flora and vegetation reports) and a flora survey of the Frog's Leg Mine (including the application area) in November 2006. A total of 120 plant taxa were recorded and no Declared Rare Flora (DRF) or Priority Flora were recorded within the application area (Outback Ecology, 2006). Nineteen vegetation communities were identified during the surveys and the condition of the vegetation was defined as ranging between 'good' and 'excellent' (Outback Ecology, 2006). All communities identified were considered widespread with no conservation issues associated with them (Outback Ecology, 2006).

No weeds were recorded within the survey areas during the assessment (Outback Ecology, 2006); however, the Mattiske (2002) survey discovered two weed species, *Carrichtera annua* (Ward's Weed) and *Carthamus lanatus* (Saffron Thistle) located outside of the application area. In order to minimise the risk of introducing weed species into the application area, it is recommended that conditions be imposed on the permit for the purposes of weed management should the permit be granted.

The Frog's Leg Mine project area (including the application area) was surveyed by Ninox Wildlife Consulting (Ninox) in 2002, prior to the development of the minesite. Five major fauna habitats were identified within the project area, with a sixth being the salt lakes themselves (Ninox, 2002). Although seasonally-wet depressions within the project area may be significant fauna habitat when they contain water, salt lakes are not locally or regionally uncommon or limited in area (Ninox, 2002). While there are representatives of the project's fauna habitats within nearby Nature Reserves, all remaining fauna habitats have some local significance due to the amount of habitat disturbance present throughout the project's portion of the Eastern Goldfields (Ninox, 2002). Overall, the project area was determined to have no exceptional regional qualities or unusually distinctive suites of native fauna (Ninox, 2002).

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

Methodology

CALM (2002).
Dames and Moore (1999).
Mattiske (2001).
Mattiske (2002).
Ninox (2002).
Outback Ecology (2006).
GIS Database:
- Interim Biogeographic Regionalisation for Australia.
- Interim Biogeographic Regionalisation for Australia (subregions).

(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

The Frog's Leg Mine project area (including the application area) was surveyed by Ninox in 2002 prior to the development of the minesite. Five major fauna habitats were identified within the Frog's Leg Mine project area (Ninox, 2002). Ninox (2002) have used the vegetation communities identified by Mattiske (2001; 2002) to describe the five major fauna habitats. The fauna habitats identified were described as:

1) Tall Eucalypt woodlands (woodlands of *Eucalyptus salubris* and *Eucalyptus salmonophloia* over shrubs including *Eremophila scoparia*, *Cratystylis microphylla, Atriplex species* and *Maireana* species, native grasses and scattered *Santalum acuminatum* over annuals);
2) Mallee woodlands (Mallee woodlands of *Eucalyptus clelandii* over low mixed shrubs including *Eremophila* species);
3) Woodlands over spinifex (open woodland of *Eucalyptus gracilis* subsp. *gracilis* over shrubs including *Dodonea viscosa* subsp. *angustissima*, *Eremophila scoparia, Grevillea sarissa* subsp. *sarissa* and *Triodia scariosa*);
4) Scrublands and heathlands (mixed scrub or heath of *Eremophila* species, *Dodonea viscosa* subsp. *angustissima* or *Melaleuca lateriflora* subsp. *lateriflora* and *Melaleuca sheathiana*); and
5) Chenopod heathlands salt lake fringes with chenopods including mainly *Halosarcia* species, *Atriplex vesicaria* subsp. *appendiculata, Disphyma crassifolium* subsp. *clavellatum, Cratystylis subspinescens* and *Frankenia interioris* var. *parviflora* (Ninox, 2002).

Salt lakes were determined to be the sixth fauna habitat (Ninox, 2002). Although seasonally-wet depressions within the project area may be significant fauna habitat for a large range of waterbirds and some migratory shorebirds when they contain water, salt lakes are not locally or regionally uncommon or limited in area (Ninox, 2002).

Only one of the above fauna habitats occurs within the clearing permit application area; fauna habitat four, scrublands and heathlands.

All of the project's fauna habitats are represented within the region and the nearby Nature Reserves (Ninox, 2002). Overall, the project area was determined to have no exceptional regional qualities or unusually distinctive suites of native fauna (Ninox, 2002).

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

Methodology

Mattiske (2001).
Mattiske (2002).
Ninox (2002).
GIS Database:
- Geodata, Lakes.
- Hydrography, linear.

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

Comments

Proposal is not likely to be at variance to this Principle

According to available datasets there are no known records of DRF or Priority Flora species within the application area (GIS Database). A population of the Priority One species *Eremophila praecox* has been recorded approximately 11 kilometres southeast of the application area within the Kurrawang Nature Reserve (GIS Database). The nearest known population of DRF, *Gastrolobium graniticum*, is located approximately 46 kilometres southwest of the application area (GIS Database).

Mattiske (2001; 2002) carried out a flora and vegetation survey of the Frog's Leg Mine project area (including the application area) and Outback Ecology (2006) surveyed four sites within the Frog's Leg Mine project area (including the application area). No DRF or Priority Flora species were recorded within the application area or wider project area during the flora and vegetation survey (Mattiske, 2001; 2002; Outback Ecology, 2006). Nineteen vegetation communities were identified during the surveys and all communities identified were considered to be widespread with no conservation issues associated with them (Outback Ecology, 2006).

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

Methodology

Mattiske (2001).
Mattiske (2002).
Outback Ecology (2006).
GIS Database:
- CALM Managed Lands and Waters.
- Declared Rare and Priority Flora List.

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

Comments

Proposal is not likely to be at variance to this Principle

There are no records of Threatened Ecological Communities (TECs) within the area subject to be cleared (GIS Database). The nearest known TEC, Depot Springs stygofauna community, is located in excess of 320 kilometres from the application area (GIS Database). The proposed clearing is not likely to impact on any known TEC.

Based on the above, the proposal 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 clearing application area falls within the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) region in which approximately 98.4% of the pre-European vegetation remains (Shepherd et al., 2001; GIS Database).

The vegetation within the application area is classified as:

- Beard Vegetation Association 125: Bare areas; salt lakes; and
- Beard Vegetation Association 480: Succulent steppe with open low woodland; mulga and sheoak over salt bush (Shepherd et al., 2001; GIS Database).

As depicted within the table below, the application area does not represent a significant remnant of vegetation in an area that has been extensively cleared (Shepherd et al., 2001). The proposed clearing will not reduce the extent of Beard Vegetation Association 125 and 480 below the recognised threshold level, below which species loss accelerates exponentially at an ecosystem level (EPA, 2000). Therefore the bioregional conservation status for the Coolgardie Bioregion and for the Beard Vegetation Associations 125 and 480 is of 'Least Concern' (Department of Natural Resources and Environment, 2002).

While a small percentage of the vegetation types within the Coolgardie bioregion are protected within conservation reserves, the bioregion remains largely uncleared. The proposed clearing is unlikely to impact on the conservation status for Beard Vegetation Associations 125 and 480 within the Coolgardie bioregion.

	Pre-European area (hectares)*	Current extent (hectares)*	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
Beard veg assoc. – State					
125	3,491,834	3,287,864	~94.2	Least Concern	6.9
480	86,099	86,099	~100	Least Concern	0.0
Beard veg assoc. – Bioregion					
125	545,719	542,554	~99.4	Least Concern	4.4
480	37,354	37,354	~100	Least Concern	0.0

* Shepherd et al. (2001).
** 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).
EPA (2000).
Shepherd et al (2001).
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 may be at variance to this Principle**

No permanent wetlands and watercourses occur within the application area (GIS Database).

The application area is located in close proximity to two non-perennial salt lakes; one salt lake is located approximately 350 metres north of the application area whilst the second, Lake Kopai, is located approximately 500 metres west of the application area (GIS Database). The application area is partly comprised of, and is surrounded by, areas subject to inundation (GIS Database).

Botanica (2007) was commissioned to map the riparian vegetation within the vicinity of the salt lakes. The vegetation within the application area is regarded as riparian vegetation (Botanica, 2007; Mattiske, 2001; 2002; Outback Ecology, 2006).

Based on the above, the proposal may be at variance to this Principle. Riparian vegetation mapping of the Frog's Leg Mine project area indicates that the proposed clearing of 0.4436 hectares for the access road will have a minor impact on the riparian vegetation that surrounds the nearby salt lakes.

Methodology Botanica (2007).
La Mancha Resources (2009).
Mattiske (2001).

Mattiske (2002).
Outback Ecology (2006).
GIS Database:
- Geodata, Lakes.
- Hydrography, linear.
- RIWI Act, 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 proposed clearing of 0.4436 hectares will allow a corridor for the construction of an access road. The application area and surrounding areas are relatively flat (Outback Ecology, 2006; GIS Databases). With the area experiencing low and variable mean annual rainfall (approximately 265 millimetres) and high mean annual evaporation (approximately 2,665 millimetres) (BoM 2009; GIS Database), the proposed clearing is unlikely to cause erosion or other land degradation issues.

The application area is located in close proximity to two salt lakes (GIS Database). One salt lake is located approximately 350 metres north of the application area whilst the second is located approximately 500 metres west of the application area (GIS Database). Botanica (2007) has identified the vegetation within the application area as riparian vegetation. Due to the low topography of the area, the application area may be subject to short periods of inundation following extreme rainfall events (GIS Database); however, the proposed clearing of 0.4436 hectares is unlikely to increase the occurrence or severity of water logging either within the application area or the surrounding area.

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

Methodology

BoM (2009).
Botanica (2007).
Mattiske (2001;2002).
Outback Ecology (2006).
GIS Database:
- Geodata, Lakes.
- Hydrography, linear.
- Topographic Contours, Statewide.

(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

The application area is not located within a conservation area (GIS Database). The nearest conservation area is the Kurrawang Nature Reserve which is located approximately 10 kilometres southeast of the application area (GIS Database). Given the small area of proposed clearing and the distance separating the application area and the nearest conservation area, the proposed clearing is unlikely to impact on the conservation values of the Kurrawang Nature Reserve.

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

Methodology

GIS Database:
- CALM Managed Lands and Waters.

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

Comments

Proposal is not likely to be at variance to this Principle

There are no permanent wetlands or watercourses within the application area (GIS Database). The salt lakes in the vicinity of the application are likely to remain dry for the majority of the year and only hold surface water for short periods following significant rainfall events. The clearing of 0.4436 hectares for the proposed access road is unlikely to impact on surface water quality.

The groundwater salinity of the application area is in the range of 14,000 - 35,000 milligrams per litre Total Dissolved Solids (TDS) (GIS Database) and is considered to be saline. The clearing of 0.4436 hectares is unlikely to increase the salinity of the groundwater and impact on any groundwater dependent ecosystems (GIS Database).

The application area is not located within a Public Drinking Water Source Area (GIS Database).

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

Methodology GIS Database:
- Geodata, Lakes.
- Groundwater Salinity, Statewide.
- Hydrography, linear.
- Public Drinking Water Source Areas (PDWSAs).

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

Comments

Proposal is not likely to be at variance to this Principle

The application area is located approximately 20 kilometres west of Kalgoorlie-Boulder airport, which has a mean annual rainfall of 265 millimetres and mean annual evaporation of 2,665 millimetres (BoM, 2009). Rainfall for the region is non-seasonal, and there is considerable variation from year to year (BoM, 2009).

No permanent waterbodies are located within the application area (GIS Database). The application area is located in close proximity to two salt lakes (GIS Database). One salt lake is located approximately 350 metres north of the application area whilst the second, Lake Kopai, is located approximately 500 metres west of the application area (GIS Database). Salt lakes within the Eastern Goldfields generally remain dry for the majority of the year, although they may hold free-standing water for short periods of time following extreme rainfall events. Given the close proximity of the application area to the salt lakes, the application area may be subject to infrequent inundation following significant rainfall events (GIS Database). However, the clearing of 0.4436 hectares is unlikely to exacerbate or increase the incidence of flooding in the area.

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

Methodology BoM (2009)
GIS Database:
- Hydrography, linear.
- Geodata, Lakes.

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

Comments

There are two native title claims over the area under application; WC98_027 and WC99_029 (GIS Database). These claims have been registered with the National Native Title Tribunal on behalf of the claimant groups. 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 (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 known 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 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.

Clearing permit CPS 3137/1 was granted by the Department of Mines and Petroleum on 25 June 2009, and is valid from 25 July 2009 to 31 July 2010. The clearing permit authorised the clearing of 0.4231 hectares of native vegetation. An application for an amendment to clearing permit CPS 3137/1 was submitted by La Mancha Resources Australia Pty Ltd on 24 August 2009. The proponent has requested an increase in the size of the area approved to clear by 0.0205 hectares. The size of the area and clearing area boundary that was approved to clear under clearing permit CPS 3137/1 will increase to 0.4436 hectares.

No submissions were received by the Department of Mines and Petroleum for this application.

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

4. Assessor's comments

Comment

The clearing principles have been addressed and the proposed clearing may be at variance to Principle (f), is not likely to be at variance to Principles (a), (b), (c), (d), (g), (h), (i) or (j) and is not at variance to Principle (e).

Should the permit be granted, it is recommended that conditions be imposed on the permit for the purposes of weed management, record keeping and permit reporting.

5. References

BoM (2009) Climate Statistics for Australian Locations. A Search for Climate Statistics for Kalgoorlie-Boulder. Accessed at http://www.bom.gov.au/climate/averages/tables/cw_012038.shtml. Accessed 16/06/2009. Australian Government Bureau of Meteorology, Australia.

Botanica (2007) Riparian Vegetation Mapping of the Frog's Leg Project. Proposed Power Line Corridor. Botanica Consulting, Western Australia.

CALM (2002) A biodiversity audit of Western Australia's 53 biogeographical subregions in 2002. Department of Conservation and Land Management, Western Australia.

Dames and Moore (1999) Vegetation survey for the White Foil Gold Project for Mines and Resources Australia Pty Ltd. Dames and Moore Pty Ltd, 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.

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, Western Australia.

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

La Mancha Resources (2009) Application for clearing permit on M15/688. Covering letter and supporting documentation. La Mancha Resources Australia Pty Ltd, Western Australia.

Mattiske (2001) Flora and vegetation survey. Frog's Leg Project Area. Mattiske Consulting Pty Ltd, Western Australia.

Mattiske (2002) Flora and vegetation survey. Frog's Leg Project Area - Supplementary survey. Mattiske Consulting Pty Ltd, Western Australia.

Ninox (2002) A vertebrate fauna assessment of the proposed Frog's Leg Gold Project near Kalgoorlie, Western Australia. Ninox Wildlife Consulting, Western Australia.

Outback Ecology (2006) White Foil and Frog's Leg. Flora survey of potential cutback areas of the Frog's Leg (M 15/688 lease) and White Foil Open Pits (M 15/830 lease). Outback Ecology, Western Australia.

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.

6. Glossary

Acronyms:

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

Definitions:

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

P1	**Priority One - Poorly Known taxa**: taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
P2	**Priority Two - Poorly Known taxa**: taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa

are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

P3 **Priority Three - Poorly Known taxa**: taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.

P4 **Priority Four – Rare taxa**: taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.

R **Declared Rare Flora – Extant taxa** *(= Threatened Flora = Endangered + Vulnerable)*: taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

X **Declared Rare Flora - Presumed Extinct taxa**: taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

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

Schedule 1 **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.

Schedule 2 **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.

Schedule 3 **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.

Schedule 4 **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

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

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

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

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

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

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

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

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

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

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

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

VU **Vulnerable:** A native species which:

(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

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