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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3358/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Golden Stallion Resources Pty Ltd**

1.3. Property details

Property: Mining Lease 59/420
Local Government Area: Shire of Yalgoo
Colloquial name: Bugeye Mining Project

1.4. Application

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

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 Beard Vegetation Association is located within the proposed clearing area (GIS Database; Shepherd, 2007): 420: Shrublands; bowgada & jam scrub. Mattiske Consulting undertook a vegetation survey over the application area during July 2009. The following vegetation communities were recorded within the applciation area (Mattiske Consulting, 2009a): **E3**: Low Woodland – Low Open Woodland of *Eucalyptus loxophleba subsp. supralaevis* over *Eremophila pantonii, Acacia burkittii, Exocarpos aphyllus, Senna artemisiodes subsp. filifolia* and *Eremophila spp.* over *Mairenana triptera, Rhagodia drummondii, Ptilotus obovatus* and chenopods on orange-brown sandy loam on flats; **E4**: Low Open Woodland of *Eucalyptus loxophleba subsp. supralaevis* with *Eucalyptus striaticalyx* over *Eremophila pantonii, Exocarpos aphyllus* over *Tecticornia doleiformis, Maireana triptera, Maireana ?georgei*, chenopods and annuals on white-brown clay loam on flats; **A11**: Tall Shrubland of *Acacia ramulosa var. ramulosa* with *Acacia tetragonophylla* and *Acacia burkittii* over *Scaevola spinescens, Senna sp. Austin* and mixed low shrubs over *Ptilotus obovatus, Cheilanthes adiantoides* and annuals on orange sandy loam with rock cover on flats; **A12**: Shrubland of *Acacia ?kalgoorliensis* with *Eremophila oppositifolia subsp. angustifolia,*	Golden Stallion Resources have recently acquired the Minjar Gold Project (located 50 kilometres south of Yalgoo) from Monarch Gold Pty Ltd and are looking to re-establish open pit mining and gold processing in the area. One particular area (colloquially named Bugeye) has been selected as one of the start-up mining locations. Golden Stallion Resources have applied to clear up to 17.02 hectares of native vegetation at the Bugeye project area to expand an existing open cut pit and waste rock dump, and to establish an ore transfer station, access roads and associated infrastructure. Clearing will be by mechanical means.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994). to Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).	The vegetation condition was assessed by botanists from Mattiske Consulting. Three weed species were recorded within the application area (Mattiske Consulting, 2009).

Exocarpos aphyllus and *Hakea preisii* over *Tecticornia doleiformis* with *Scaevola spinescens, Rhagodia drummondii, Frankenia ?setosa* and *Atriplex bunburyana* on orange brown sandy loam with rock cover on flats;

A13: Tall Shrubland of *Acacia ramulosa var. ramulosa* with *Acacia burkittii , Acacia tetragonophylla* and *Acacia acuminata* over *Ptilotus obovatus,* mixed low shrubs and annuals on orange brown sandy loams on flats and slopes; and

S5: Shrubland of *Dodonaea inaequifolia, Thryptomene costata, Acacia tetragonophylla* and *Hybanthus floribundus subsp. curvifolius* with occasional emergent *Allocasuarina dielsianna* on brown orange sandy loam granite outcropping on slopes.

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 flora and fauna, most species are wide ranging and typically occur in one or more adjoining bioregions (CALM, 2002). Pastoralism is the dominant land use in the Yalgoo bioregion, comprising approximately 76% of the total land area (CALM, 2002). However, mining also has an increasing interest in the bioregion (CALM, 2002).

Nine vegetation communities were recorded during the survey, six of which occur in the proposed clearing area. None of the vegetation communities are Threatened Ecological Communities or Priority Ecological Communities. Mattiske Consulting (2009a) noted that communities E3, A11, A13 and S5 may be considered locally significant as they support Priority Flora. The flora survey recorded 93 flora species from 36 familes and 53 genera from the Bugeye project area (Mattiske Consulting, 2009a). Two species of Priority Flora were recorded within the application area (Mattiske Consutling, 2009a). Three weed species were recorded within the survey area; Common Skorksbill (*Erodium cicutarium*), Slender Iceplant (*Mesembryanthemum nodiflorum*) and *?Monoculus monstrosus* which was in juvenile form and made identification uncertain (Mattiske Consulting, 2009). The presence of these introduced weed species lowers the biodiversity value of the area proposed to be cleared. Should a permit be granted, it is recommended that a condition be imposed on the permit for the purpose of weed management.

From a faunal perspective, the greater Yalgoo bioregion is known to support a rich and diverse array of fauna, some of which are habitat specific. A desktop study revealed that the proposed clearing area may support up to 128 bird species, 25 native mammal species, 69 reptile species and 6 amphibian species (Mattiske Consulting, 2009a). Fauna habitats within the proposed clearing area are not unique and are likely to be represented elsewhere. In addition, previous mining and pastoral-related disturbances are likely to have diminished the habitat values of the area to some extent. On this basis, the proposed clearing area is unlikely to support a high level of faunal diversity.

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

Methodology

CALM (2002)
Mattiske Consulting (2009a)
GIS Database
- Interim Biogeographic Regionalisation of Australia

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

Comments

Proposal may be at variance to this Principle

Mattiske Consulting (2009) contracted Aquila Wildlife Fieldwork to undertake to undertake a Level 1 fauna survey of the Bugeye project area in accordance with EPA Guidance Statement No. 56 and EPA Position Statement No. 3. The following fauna habitats were observed within the survey area (Mattiske Consulting, 2009a):

- Stony hills with low shrubs;
- Foothills and slopes with dense Acacia shrublands;
- Red loamy plains with mixed shrubland plants;
- Eroded granite rises;
- Areas of deeper sandy loams;
- Laterite breakaways; and

- Eucalypt woodlands.

The habitats present are likely to be represented elsewhere within the bioregion (Mattiske Consulting, 2009a). The assessing officer also notes that fauna habitat values within the proposed clearing area have been compromised to some extent by previous mining-related disturbances. This is clearly evident upon examination of aerial and site photography (GIS Database; Golden Stallion Resources, 2009)

There is the potential for a number fauna species of conservation significance to occur within the application area (Mattiske Consulting, 2009a). In particular the Western Spiny-tailed Skink (*Egernia stokesii badia*) may utilise York Gum within the local area and Malleefowl (*Leipoa ocellata*) may use suitable habitat for nesting (Mattiske Consulting, 2009a).

The Western Spiny-tailed Skink ('Endangered' under the *Environment Protection and Biodiversity Conservation* (EPBC) *Act 1999* and Schedule 1 'Fauna that is rare or is likely to become extinct', *Wildlife Conservation (Specially Protected Fauna) Notice 2008*) is known to occur in areas where York Gums (*Eucalyptus loxophleba*) grow (Mattiske Consulting, 2009a). York Gums have been recorded within the application area (Mattiske Consulting, 2009a). The Western Spiny-tailed Skink may be impacted by the clearing of mature trees that contain hollows and when fallen branches with hollows are cleared away (Mattiske Consulting, 2009a). Should a permit be granted it is recommended that a condition be imposed for the purpose of Western Spiny-tailed Skink management.

An old Malleefowl ('Vulnerable' under the *Environment Protection and Biodiversity Conservation* (EPBC) *Act 1999* and Schedule 1 'Fauna that is rare or is likely to become extinct', *Wildlife Conservation (Specially Protected Fauna) Notice 2008*) mound was recorded approximately 150 metres east of the application area (Golden Stallion Resources, 2009). No Malleefowl mounds have been recorded within the application area (Golden Stallion Resources, 2009). Active Malleefowl mounds have been recorded throughout the region, which shows that Malleefowl are still present in the local area. It is recommended that if clearing is done within the nesting period (August to April) that a more thorough search of the application area be conducted (Mattiske Consulting, 2009a). Should a permit be granted it is recommended that a condition be imposed for the purpose of Malleefowl management.

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

Methodology

Golden Stallion Resources (2009)
Mattiske Consulting (2009a)
GIS Database
- Badja 1.4m Orthomosaic – Landgate 2003

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

Comments

Proposal is not likely to be at variance to this Principle

According to available databases, there are no records of Declared Rare Flora (DRF) species within the application area (GIS Database). Mattiske Consulting (2009a) conducted a flora survey over the application and surrounding area between 6 – 10 July 2009. No DRF was recorded within the application area (Mattiske Consulting, 2009a).

The flora survey recorded two species of Priority Flora (Mattiske Consulting, 2009a):

- *Micromyrtus trudgenii* (P3)
- *Persoonia pentasticha* (P3)

One population of *Micromyrtus trudgenii* with 6-10 plants was recorded within the application area (Mattiske Consulting, 2009a). This species was found at four other locations during the survey with 93 – 185 plants being recorded (Mattiske Consulting, 2009a). A further 6 populations with 31 – 61 plants was recorded during the flora survey of Golden Stallion's Monaco project area, located approximately 5 kilometres north (Mattiske Consulting, 2009b). Florabase has a record of a further 29 populations of *Micromyrtus trudgenii* (Western Australian Herbarium, 2009). The removal of 6 – 10 individuals is not likely to have a significant impact on this species.

One individual of the species *Persoonia pentasticha* was recorded within the application area (Mattiske Consulting, 2009a). An additional 6 – 12 individuals were recorded from four populations during the flora survey. Florabase has 39 records of *Persoonia pentasticha* (Western Australian Herbarium, 2009). The removal of one individual is not likely to have a significant impact on this species.

A population of what was believed to be *Hibbertia aurea* was recorded within the application area (Mattiske Consulting, 2009a). This species is not listed as DRF or Priority Flora, however, this population represented a range extension of approximately 200 kilometres to the east (Mattiske Consulting, 2009a). A specimen of this species was taken back to the Western Australian Herbarium and re-identified as *Hibbertia exasperata* (Mattiske Consulting, 2009c). This species has been recorded from the area before and it does not represent a significant range extension.

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

Methodology Mattiske Consulting (2009a)
Mattiske Consulting (2009b)
Mattiske Consulting (2009c)
Western Australian Herbarium (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**
According to available databases, there are no Threatened Ecological Communities (TEC's) within the application area (GIS Database). No TEC's were identified during the vegetation survey (Mattiske Consulting, 2009a).

The application area is within the buffer zone for the Priority Ecological Community (PEC) Minjar/Gnows Nest vegetation complex (banded ironstone formation) (GIS Database). Given that the application area is dominated by Acacia shrubland on flats and is not on banded ironstone formation, this PEC is not likely to be impacted (Mattiske Consulting, 2009a)

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

Methodology Mattiske Consulting (2009a)
GIS Database
- Threatened Ecological Sites
- Threatened Ecological Sites Buffered

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

Comments **Proposal is not at variance to this Principle**
The application area is within the Interim Biogeographic Regionalisation of Australia (IBRA) Yalgoo bioregion (GIS Database). According to Shepherd (2007) there is approximately 98.9% of the Pre-European vegetation remaining in the Yalgoo bioregion (see table).

The vegetation of the application area has been mapped as (GIS Database):

- Beard Vegetation Association 420: Shrublands; bowgada & jam scrub.

There is approximately 100% of the Pre-European vegetation remaining of Beard Vegetation Association 420 in the Yalgoo bioregion (Shepherd, 2007). The area proposed to clear does not represent a significant remnant of native vegetation in the local or wider regional area. The proposed clearing will not reduce the extent of Beard Vegetation Association 420 below the current recognised threshold level of 30% of the pre-clearing extent of the vegetation type (below which species loss accelerates exponentially at an ecosystem level) (Shepherd et al., 2001).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Yalgoo	5,057,316	5,001,943	~98.9	Least concern	9.85
Beard vegetation associations - State					
420	859,632	829,286	~96.47	Least concern	0.06
Beard vegetation associations - Bioregion					
420	621,396	621,396	~100	Least concern	0.02

* Shepherd (2007)
** Department of Natural Resources and Environment (2002)

Options to select from: Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment 2002)

Presumed extinct	Probably no longer present in the bioregion
Endangered+	<10% of pre-European extent remains
Vulnerable+	10-30% of pre-European extent exists
Depleted+	>30% and up to 50% of pre-European extent exists

Least concern+	>50% pre-European extent exists and subject to little or no degradation over a majority of this area

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)
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 not likely to be at variance to this Principle

According to available databases, there are two ephemeral drainage lines within the application area (GIS Database). The vegetation survey did not identify any vegetation types associated with a watercourse within the application area (Mattiske Consulting, 2009a).

Aerial imagery shows that the ephemeral watercourses have been previously disturbed by mining activities (GIS Database). Given these watercourses have already been largely impacted by previous mining activities, the proposed clearing is not likely have a significant impact on vegetation growing near these watercourses. Analysis also indicates that minor ephemeral drainage lines are a common feature both locally (within a 50 kilometre radius) and regionally (within the Yalgoo bioregion) (GIS Database).

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

Methodology
Mattiske Consulting (2009a)
GIS Database
- Badja 1.4m Orthomosaic – Landgate 2003
- Hydrography, linear

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

Comments

Proposal is not likely to be at variance to this Principle

Land system mapping by the Department of Agriculture Western Australia has mapped a variety of land systems for the Yalgoo bioregion. Land systems are mapped based on biophysical features such as soil and landform type, geology, geomorphology and vegetation type (Payne, et. al., 1998). The proposed clearing area includes one land system (GIS Database). A broad description is given below:

Graves Land System: This land system is characterised by basalt and greenstone rises and hills, supporting eucalypt woodlands with prominent saltbush and bluebush understoreys (Payne et al., 1998). The alluvial plains landform of this land system is susceptible to water erosion where perennial shrub cover is removed or the soil surface is disturbed (Payne et al., 1998). This landform has not been identified within the application area.

At a broad level the pH of the surface soil within the application area ranges from 6.0 – 6.5 (CSIRO, 2009). Site sampling recorded the soil pH to be 5.2 (Golden Stallion Resources, 2009). There is no known occurrence of acid sulphate soils within the application area (CSIRO, 2009). The application area is relatively flat and average wind speeds for Yalgoo indicate low wind speeds which would minimise the potential for wind and water erosion (GIS Database; BoM, 2009).

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

Methodology
BoM (2009)
CSIRO (2009)
Golden Stallion Resources (2009)
Payne et al. (1998)
GIS Database
- Rangeland land system mapping
- 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

According to available databases, the application area is located within a conservation reserve (GIS Database). The application area is located on the former Warriedar pastoral lease which has been purchased by the DEC

and may potentially be added to Western Australia's conservation estate in the future (Golden Stallion Resources, 2009).

Given the relatively small scale of the project, and its location in the valley away from the high conservation value ranges, the project is not likely to impact on the potential conservation value of Warriedar Station (Golden Stallion Resources, 2009). However, the proposed clearing may potentially increase the spread and occurrence of weeds within the former Warriedar pastoral lease. Should a permit be granted, it is recommended that a condition be imposed on the permit for the purpose of weed management.

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

Methodology Golden Stallion Resources (2009)
GIS Database
- 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

According to available databases, the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database).

The average annual rainfall within the application area is 258.4 millimetres and the average annual evaporation rate is approximately 3,000 millimetres (GIS Database; BoM, 2009). Therefore, during normal rainfall events surface water in the application area is likely to evaporate quickly. However, substantial rainfall events create surface sheet flow which is likely to have a higher level of sediments. During normal rainfall events, the proposed clearing would not likely lead to an increase in sedimentation of watercourses within the application area.

The groundwater salinity within the application area ranges from 3,000 – 7,000 milligrams per litre of Total Dissolved Solids (TDS) (GIS Database). This is considered to be brackish to saline. Given the groundwater is already brackish to saline, any clearing within the application area is not likely to alter the existing groundwater quality.

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

Methodology BoM (2009)
GIS Database
- Evaporation Isopleths
- Groundwater Salinity, Statewide
- Public Drinking Water Source Areas (PDWSA's)

(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 climate of the region is characterised by an arid climate with cool winters and hot, dry summers (Mattiske Consulting, 2009a). The application area receives an average annual rainfall of approximately 258.4 millimetres (BoM, 2009). Based on an average annual evaporation rate of 3,000 millimetres (GIS Database), any surface water resulting from rainfall events is likely to be relatively short lived. Native vegetation clearing is likely to increase surface water run-off, however there is not likely to be an increase in the incidence or intensity of natural flood events in the local or regional area.

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

Methodology BoM (2009)
Mattiske Consulting (2009a)
GIS Database
- Evaporation Isopleths

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

Comments

The clearing permit was advertised by the Department of Mines and Petroleum, inviting submissions from the public. There was one submission received stating no objections.

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

According to available databases, there are no Aboriginal Sites of Significance within the application area (GIS

Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged throughout 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
- 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 may be at variance to Principle (b), is not likely to be at variance to Principles (a), (c), (d), (f), (g), (h), (i) and (j) and is not at variance to Principle (e).

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

5. References

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

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Mattiske Consulting (2009a) Flora and Vegetation Survey of the Bugeye Project Area Within Tenement M59/420, Minjar Project Area. Unpublished report for Golden Stallion Resources by Mattiske Consulting Pty Ltd, September 2009.

Mattiske Consulting (2009b) Flora and Vegetation Survey of the Monaco Project Area within tenements M59/420 and M59/458, Minjar Project Area. Prepared for Golden Stallion Resources by Mattiske Consulting Pty Ltd, September 2009.

Mattiske Consulting (2009c) Additional information supplied for clearing permit application CPS 3358/1. Received by the assessing officer on 17 December 2009.

Payne, A.L., Van Vreeswyk, A.M.E., Pringle, H.J.R., Leighton, K.A., and Hennig, P. (1998) An inventory and condition survey of the Sandstone-Yalgoo-Paynes Find area, Western Australia. Department of Agriculture, Western Australia.

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Western Australian Herbarium (2009) Florabase - The Western Australian Flora. Department of Environment and Conservation. Available online at http://florabase.dec.wa.gov.au/ Accessed on 10 December 2009.

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.