



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4229/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: St Ives Gold Mining Company Pty Ltd

1.3. Property details

Property: Mining Lease 15/22
Mining Lease 15/1542
Mining Lease 15/1543
Mining Lease 15/1544
Mining Lease 15/1545
Mining Lease 15/1546
Mining Lease 15/1630
Mining Lease 15/1631

Local Government Area: Coolgardie
Colloquial name: Idough Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 7 April 2011

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description Beard vegetation associations have been mapped at a 1:250,000 scale for the whole of Western Australia. The vegetation of the application area is broadly mapped as:

Beard vegetation association 9: Medium woodland; Coral Gum (*Eucalyptus torquata*) & Goldfields Blackbutt (*E. lesouefii*); and

Beard vegetation association 936: Medium woodland; Salmon Gum (GIS Database; Shepherd, 2009).

Botanica Consulting (2010) conducted a flora survey of the application area and surrounding areas between 22 and 24 September 2009, and described the vegetation communities of the application area as follows:

- Eucalyptus salubris* woodland over samphire – Upperstorey species included *E. salubris* and *E. lesouefii*. Understorey species included *Austrostipa nitida*, *Maireana pentatropis*, *Eremophila parvifolia*, *Rhagodia drummondii*, *Tecticornia disarticulate*, *T. halocnemoides*, *T. indica* and *Sclerolaena diacantha*;
- Mixed *Eucalyptus* woodlands – Upperstorey included *E. salmonophloia*, *E. salubris* and *E. lesouefii*. Understorey species included *Acacia hemiteles*, *Atriplex vesicaria*, *Eremophila decipiens*, *Pimelea microcephala* and *Austrostipa nitida*;
- Acacia* sp. narrow phyllode shrubland – Upperstorey included *Acacia* sp. narrow phyllode and *Allocasuarina campestris*. The understorey species included *Scaevola spinescens*, *Prostanthera althoferi*, *Westringia rigida* and *Pimelea microcephala*;
- Eucalyptus torquata* on stony rise – Upperstorey included *E. torquata* and *Casuarina pauper*. The understorey species included *Santalum spicatum*, *Acacia erinacea*, *Alyxia buxifolia*, *Maireana pentatropis* and *Eremophila parvifolia*; and
- Eucalyptus salubris* over *Eremophila scoparia* – Upperstorey included *E. lesouefii* and *E. salubris*. The understorey species included *Santalum acuminatum*, *Eremophila glabra* subsp. *glabra*, *Scaevola spinescens* and *Acacia colletioides*.

Clearing Description *St Ives Gold Mining is proposing to clear up to 48 hectares of native vegetation within a 311 hectare application area, for the Idough Project (St Ives Gold Mining, 2011). The clearing of vegetation is required to establish the structural and operational requirements of the Project such as the ROM pad, waste dump area, pits, and pipeline infrastructure and support facilities.*

The vegetation will be cleared using a bulldozer. The vegetation and topsoil will be stockpiled separately for use in rehabilitation.

Vegetation Condition	Very 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).
Comment	The application area is located in the Eastern Goldfields subregion of Western Australia and is situated approximately 18 kilometres north-west of the Kambalda town site (GIS Database).
	The vegetation condition was derived from a vegetation survey conducted by Botanica Consulting (2010).

3. Assessment of application against clearing principles

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

Comments	<p>Proposal is not likely to be at variance to this Principle</p> <p>The application area occurs within the Eastern Goldfields subregion of the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised of gently undulating plains interrupted in the west with low hills and ridges of Archaean greenstones and in the east by a horst of Proterozoic basic granulite. A series of large playa lakes in the western half are the remnants of an ancient major drainage line (CALM, 2002). The vegetation is of Mallees, Acacia thickets and shrubheaths on sandplains. Diverse Eucalyptus woodlands occur around salt lakes, on ranges, and in valleys. Salt lakes support dwarf shrublands of samphire (CALM, 2002).</p> <p>The vegetation within the application area consists of Beard vegetation associations 9 and 936, which are common and widespread throughout the Coolgardie bioregion with approximately 100% of the pre-European vegetation extent remaining (Shepherd, 2009; GIS Database). A vegetation survey of the application area by Botanica Consulting (2010) between 22 and 24 September 2009 identified five vegetation communities. The condition of all vegetation types was classified as 'very good' to 'excellent' (Keighery, 1994).</p> <p>A search on the Department of Environment and Conservation Declared Rare and Priority Flora databases revealed that no Declared Rare Flora (DRF) species and seven Priority species may potentially occur within a 20 kilometre radius of the application area (DEC, 2011). Botanica Consulting (2010) found no DRF and six Priority flora species in the surrounding area. Of the Priority Flora species that may potentially occur, <i>Ptilotus rigidus</i> (Priority 1 species) is known to occur within the Lake Lefroy region, however the nearest known location of this species is approximately 40 kilometres west of the application area (Botanica Consulting, 2010).</p> <p>No Threatened Ecological Communities or Priority Ecological Communities were recorded or identified within the application area (GIS Database).</p> <p>Three weed species were identified during the survey: Scarlet Pimpernel (<i>Anagallis arvensis</i>), Black Nightshade (<i>Solanum nigrum</i>) and Calomba Daisy (<i>Oncosiphon suffruticosum</i>). None of these species are listed by the Western Australian Department of Agriculture and Food as Declared Plants. Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.</p> <p>The fauna habitats within the application area are considered to be common and widespread within the subregion and faunal assemblages are unlikely to be different to that found in similar habitat located elsewhere in the region (Harewood, 2010). The habitat types are not of high ecological significance and the clearing of 48 hectares of native vegetation is unlikely to have a significant impact in a regional context.</p> <p>Based on the above, the proposed clearing is not likely to be at variance to this Principle.</p>
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Methodology	Botanica Consulting (2010) CALM (2002) DEC (2011) Keighery (1994) Harewood (2010) Shepherd (2009) GIS Database: - IBRA WA (regions - subregions) - Pre-European Vegetation - Threatened Ecological Sites Buffered
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(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	<p>Proposal is not likely to be at variance to this Principle</p> <p>There were five broad vegetation types occurring within the survey area as recorded by Botanica Consulting (2010);</p>
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1. Open Woodland over open shrubland over low shrubland;
2. Low woodland over shrubland over low shrubland;
3. Tall shrubland over shrubland over low open shrubland;
4. Open woodland over open shrubland over low shrubland (samphire); and
5. Low open woodland over shrubland over low open shrubland (on stony rise).

Analysis of aerial photography and Botanica Consulting (2010) identified the vegetation condition to be 'very good' to 'excellent' (Keighery, 1994; GIS Database). Any vertebrate fauna assemblages that are likely to be recorded within the application area are likely to be similar to those found in neighbouring areas due to the availability of similar fauna habitats in the surrounding areas (Harewood, 2010). The habitats recorded during the survey are considered typical to those found in the Eastern Goldfields subregion (Harewood, 2010; GIS Database). The application area does not contain habitats or faunal assemblages that are ecologically significant, and it is unlikely that any species of conservation significance will be directly affected to a large degree by the clearing of native vegetation in the application area. The proposed clearing is not likely to significantly impact important habitat for endemic fauna.

There is approximately 98.4% of the pre-European vegetation remaining within the Coolgardie bioregion (Shepherd, 2007; GIS Database). Given the extent of the native vegetation remaining in the local area and bioregion, the vegetation to be cleared does not represent a significant ecological link.

Harewood (2010) conducted a level one fauna survey of the application area and surrounding areas on 23 September 2009. Harewood (2010) recorded 55 native fauna species, and two introduced species with no fauna species of conservation significance positively identified during the fauna survey within the application area.

There are five birds and one non-volant mammal listed as either Threatened Species under the *Environmental Protection and Biodiversity Conservation Act (EPBC) 1999* or protected under Western Australian legislation (*Wildlife Conservation Act 1950*), that may potentially occur within a 20 kilometre radius of the application area (DEC, 2011). These species are: Australian Bustard (*Ardeotis australis*), Bee-eater (*Merops ornatus*), Fork-tailed Swift (*Apus pacificus*), Peregrine Falcon (*Falco peregrinus*), Shy Heathwren (*Hylacola cauta whitlocki*) and Central Long-eared Bat (*Nyctophilus timoriensis timoriensis*). These species can be regarded as possibly utilising the West Idough study area for some purpose at times based on habitats present.

Two of the bird species; Rainbow Bee-eater (*Merops ornatus*) and Fork-tailed Swift (*Apus pacificus*) are listed as migratory under the *EPBC Act 1999*. These birds may overfly and be occasional visitors to the application area (with Lake Lefroy four kilometres north-west), rather than utilising the habitats of the application area on a regular basis. The proposed clearing is not likely to impact critical feeding or breeding habitat for any migratory species. The remaining species are considered highly mobile and/or have a wide distribution so the clearing is unlikely to significantly impact on the species (Harewood, 2010).

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

Methodology Botanica Consulting (2010)
 DEC (2011)
 Harewood (2010)
 Keighery (1994)
 Shepherd (2009)
 GIS Database:
 - Lake Lefroy 1.4m Orthomosaic - Landgate 2005
 - IBRA WA (regions - subregions)

(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) within the application area (GIS Database). A search of the Department of Environment and Conservation's NatureMap database identified no DRF species as occurring within a 20 kilometre radius of the application area (DEC, 2011).

Botanica Consulting (2010) conducted a vegetation and flora survey of the application area between 22 and 24 September 2009. No DRF were recorded within the survey area.

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

Methodology Botanica Consulting (2010)
 DEC (2011)
 GIS Database:
 - Declared Rare and Priority Flora List

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

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

A search of the available databases shows that there are no Threatened Ecological Communities situated within 100 kilometres of the application area (GIS Database).

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

Methodology GIS Database:
- Threatened Ecological Sites Buffered

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

Comments Proposal is not at variance to this Principle

The application area falls within the Coolgardie IBRA bioregion (GIS Database). Shepherd (2009) reports that approximately 98.4% of the pre-European vegetation still exists in this bioregion.

The vegetation associations within the application area are recorded as:

Beard vegetation association 9: Medium woodland; Coral Gum (*Eucalyptus torquata*) & Goldfields Blackbutt (*E. lesouefii*); and

Beard vegetation association 936: Medium woodland; Salmon Gum (GIS Database; Shepherd, 2009).

According to Shepherd (2009) approximately 99.8% of the Beard vegetation association 9 and approximately 100% of Beard vegetation association 936 remains within the Coolgardie bioregion (see table below).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Coolgardie	12,912,204.46	12,707,872.99	~98.42	Least Concern	10.87
Beard vegetation associations - State					
9	240,509.33	239,928.23	~99.76	Least Concern	1.26
936	698,752.03	678,065.88	~97.04	Least Concern	2.25
Beard vegetation associations - Bioregion					
9	240,442	239,867.26	~99.76	Least Concern	1.26
936	586,792.22	586,791.41	~100	Least Concern	1.20

* Shepherd (2009)

** 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 (2009)
GIS Database:
- IBRA WA (regions - subregions)
- Pre-European Vegetation

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

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

According to available databases, there are no watercourses or wetlands within the application area (GIS Database). The vegetation within the application area is not considered to be growing in association with any watercourse or wetland. The proposed clearing infringes on a small part of an ephemeral salt-lake adjacent to Lake Lefroy, however Botanica Consulting (2010) state that there was no vegetation growing in association with a watercourse or wetland.

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

Methodology Botanica Consulting (2010)
GIS Database:
- Geodata, Lakes
- Hydrography, Linear

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

Comments **Proposal may be at variance to this Principle**

The application area is broadly mapped as the Gumland and Moriarty land systems (GIS Database).

The Gumland land system is described as depositional surfaces, broad shallow valley plains with restricted areas of slightly more elevated stony surface and central drainage tracts (occasionally with shallow channels) receiving more concentrated through flow (Payne et al., 1998).

The Moriarty land system is described as low rises to 20 metres relief, locally with ferruginous duricrust, gently undulating lower plains with pebble mantles and level to very gently inclined loamy plains; poorly defined, sparse drainage patterns (Pringle et al., 1994). Susceptible to water erosion, and the vegetation of this land system is highly preferred for grazing, rendering it susceptible to overgrazing and degradation (Pringle et al., 1994).

Based on the above, the proposed clearing may be at variance to this Principle, given its susceptibility to erosion.

Methodology Payne et al. (1998)
Pringle et al. (1994)
GIS Database:
- Rangeland Land System Mapping

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

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

The proposed application area is not located within any conservation areas (GIS Database). The nearest conservation areas are the Kambalda Nature Reserve and Kambalda Timber Reserve, both adjacent to each other and located approximately 18 kilometres north-west of the application area (GIS Database).

Given the distance and water body separating the application area from the Kambalda Nature Reserve and Kambalda Timber Reserve, the proposed clearing is not likely to provide a significant ecological linkage or fauna movement corridor and is not likely to impact the environmental values of the conservation area.

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

Methodology 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). There are no permanent or ephemeral waterbodies located within the application area (GIS Database; St Ives Gold Mining, 2011). The application area infringes onto a small ephemeral salt-lake which is adjacent to Lake Lefroy. The groundwater quality of Lake Lefroy is saline (ranges from 14,000 to 35,000 milligrams/Litre Total Dissolved solids (TDS)) (GIS Database).

Given there is a low average rainfall in the greater Coolgardie area (St Ives Gold Mining, 2011) and there are no watercourses within the application area, the proposed clearing is not likely to cause sedimentation or deteriorate the quality of the already hypersaline surface water in the Lake Lefroy area. Due to the saline state of the groundwater, the proposed clearing is not likely to further deteriorate the quality of underground water, or Lake Lefroy.

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

Methodology St Ives Gold Mining (2011)
GIS Database:
- Public Drinking Water Source Areas
- Hydrography, Linear

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

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

The application area experiences a semi-arid Mediterranean climate with mainly winter rainfall, with an annual average of approximately 250 - 300 millimetres per year (CALM, 2002). Based on an average annual evaporation rate of 2,400 - 2,600 millimetres (BoM, 2011), any surface water resulting from rainfall events is likely to be relatively short lived. This region is generally free from intense cyclonic activity, although it does receive considerable rainfall from degenerating cyclonic depressions (Dames and Moore, 1999). Any surface water intersecting the project will be diverted into natural drainage channels to the north of the application area (St Ives Gold Mining, 2011; GIS Database).

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

Methodology BoM (2011)
CALM (2002)
Dames and Moore (1999)
St Ives Gold Mining (2011)
GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

The clearing permit application was advertised on 25 February 2011 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received in relation to this application regarding Aboriginal heritage issues. A written response was provided on the matters raised.

There are two Native Title claims (WC99/2 and WC98/27) over the area under application. The mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal sites of significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment and Conservation and the Department of Water, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Determined by the Federal Court
- Native Title Claims - Registered with the NNTT
- Native Title Claims - Filed at the Federal Court

4. References

- BoM (2011) Evaporation: Average Monthly and Annual Evaporation, Australian Government Bureau of Meteorology, viewed 20 March, 2011, <<http://www.bom.gov.au/wat/evaporation/>>.
- Botanica Consulting (2010) Flora survey of Diana, West Idough and Bellerophon Projects for St Ives Gold Mine, Unpublished report prepared for St Ives Gold Mining Company Pty Ltd.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Coolgardie 3 (COO3 - Eastern Goldfields subregion) Department of Conservation and Land Management, Western Australia.
- Dames and Moore (1999) Public Environmental Review (EPA Assessment No. 1250), Gold Mine Developments on Lake Lefroy, Prepared for WMC Resources (St Ives Gold), September 1999.
- DEC (2011) NatureMap - Mapping Western Australia Biodiversity, Department of Environment and Conservation, viewed 03 March 2011, <<http://naturemap.dec.wa.gov.au>>.
- 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.
- Harewood, G (2010) Terrestrial Fauna Survey (Level 1) of the proposed West Idough Mine Area, St Ives - Kambalda, Unpublished report prepared for St Ives Gold Mining Company Pty Ltd.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Payne, A.L., Mitchell, A.A., & Henning, P (1998) Land systems of the Kambalda area and surrounds, Unpublished report prepared for Western Mining Corporation Resources Ltd, Natural Resource Management Services, Agriculture Western Australia.

Pringle, H.J.R., Van Vreeswyk, A.M.E., & Gilligan, S.A. (1994) An inventory and condition survey of rangelands in the northeastern Goldfields, Western Australia. Department of Agriculture. South Perth.

Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

St Ives Gold Mining (2011) Clearing application supporting information - I dough Project, Unpublished report dated February 2011.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), 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 (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
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 Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

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.