



1. Application details

1.1. Permit application details

Permit application No.: 1390/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: ROBE RIVER IRON ASSOCIATES

1.3. Property details

Property: Special Lease LGE I123396
Ministerial Reserve 35813
pursuant to the *Iron Ore (Robe River) Agreement Act 1964*

Cape Lambert construction camp

Local Government Area: Shire Of Roebourne

Colloquial name: Crown Reserve 35813 Iron Ore (Robe River) Agreement Act 1964

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
30		Mechanical Removal	Miscellaneous

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

The vegetation in the application area is broadly mapped as Beard Vegetation Association 157: Hummock grasslands, grass steppe; hard spinifex, *Triodia wiseana* (Shepherd et al., 2001).

The majority of the site consists of an open shrubland on deep, red sandy soils (Pilbara Iron, 2006b). The vegetation in the application area is generally in very good condition (Robe River Iron, 2006). A flora survey of the application area, conducted by Pilbara Iron in May 2006 recorded a total of 142 plant taxa, including five weed species: *Cenchrus ciliaris*, Buffel grass; *Cenchrus setiger*, Birdwood grass; *Lactuca serriola*, Prickly Lettuce; *Aerva javanica*, Kapok bush; and *Stylosanthes humilis*, Townsville stylo (Pilbara Iron, 2006a).

A vegetation survey conducted on 15 August 2006 mapped three dominant vegetation units within the application area, broadly associated with the following geographical features: dunes, minor drainage lines, and rocky slopes (Pilbara Iron, 2006b).

These vegetation associations were described as:

1. Dunes: *Stylobasium spathulatum*, *Acacia ligulata* Open Shrubland over *A. stellaticeps* Low Shrubland over *Aristida holothera*, *Triodia epactia*, *Eriachne mucronata* Grassland. This vegetation is in Excellent to Very Good condition (isolated patches of *Cenchrus ciliaris* (Buffel Grass)). The proposed accommodation village is located in this vegetation type (Pilbara Iron, 2006b).

2. Minor Drainage lines; Two minor drainage lines traverse the site, running from the higher rocky slopes eastwards toward the coast. The northern drainage line appears to be tidal, as is evidenced by salt crystals on the soil surface, halophytic species (samphires) and dead patches of Buffel grass which may have been killed from salt water inundation during cyclone events. The vegetation along the creeklines consists of

Clearing Description

The application is to clear up to 30 ha within a defined area of 95 ha, approximately 2 km north of Wickham. The proposed clearing is for the establishment of a construction camp and associated infrastructure for the upgrade of the Cape Lambert Port Operations. The bulk of the proposed clearing will be for the construction camp, which will be located close to Cape Lambert Road. An access road will link the construction camp to Cape Lambert Road. A small amount of vegetation disturbance will be required for a powerline corridor running from the existing powerline adjacent to the Cape Lambert railway line to the construction camp.

The vegetation will be mechanically cleared and will be stockpiled for later use in rehabilitation works (Robe River Iron Assoc, 2006).

Vegetation Condition

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994),

to

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994).

Comment

Robe River Iron Associates have been granted a four year lease over the application area, for the establishment of a construction camp. At the completion of the Cape Lambert port upgrade, the construction camp will be removed and the site revegetated. The land tenure will then revert to Ministerial Lease 35813.

Acacia coleii, *A. coriacea* Open Tall Shrubland over *Santalum lanceolatum*, *A. ligulata*, *Trichodesma zeylanicum* var *grandiflorum* Shrubland over *Acacia stellaticeps* Open Low Shrubland over *Triodia epactia* Grassland over *Corynotheca micrantha* Very Open Herbland. The vegetation of the southern drainage line is in Excellent to Very Good condition (isolated patches of *Cenchrus ciliaris* (Buffel Grass)). The northern drainage line is only in Good-Very Good condition and has been degraded through more serious

Cenchrus ciliaris (Buffel Grass) invasion and grazing by livestock. No clearing will occur along drainage lines (Pilbara Iron, 2006b).

3. Rocky slopes: Sparse *Acacia inequilatera* Open Tall Shrubland over *Triodia wiseana* Grassland in Excellent condition. Because of the steepness of these slopes, clearing will be limited to the construction of powerlines and similar infrastructure (Pilbara Iron, 2006b).

3. Assessment of application against clearing principles

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

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

The application area is located immediately adjacent to roads, and some sections of the application area have been previously disturbed by existing roads, tracks, a tank, pipelines and buildings (GIS Database; Robe River Iron, 2006).

There are no known flora or fauna of conservation significance within the application area. The vegetation and habitat types occurring within the application area are well represented in the region (GIS Database; Robe River Iron, 2006), and the application area is unlikely to be of higher biodiversity than surrounding areas.

DEC advised that the application area does not appear to represent an area of higher biodiversity value when compared to representative vegetation in a local and regional context (DEC, 2006a).

The proposed clearing is not likely to be at variance to this principle.

Methodology DEC (2006a).
GIS Database: Pre-European Vegetation - DA 01/01.
Robe River Iron (2006).

(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**

There are no records of fauna of conservation significance occurring within the area applied to clear (GIS Database, 2006).

A search of DEC Databases conducted by DEC on behalf of the proponent, revealed seven species of conservation significance previously recorded within a 50km radius of the application area: Banded Hare-Wallaby, *Lagostrophus fasciatus fasciatus* (R); Pilbara Olive Python, *Liasis olivaceous barroni* (R); Little North-western Mastiff Bat, *Mormopterus loriae cobourgiana* (P1); Burrowing skink, *Lerista quadrivincula* (P1); Western Pebble-mound Mouse, *Pseudomys chapmani* (P4); Eastern Curlew, *Numenius madagascariensis* (P4); Flock Bronzewing, *Phaps histrionica* (P4) (DEC, 2006c).

The record of the Banded Hare-wallaby within 50km of the application area is a historical record. This species is currently known only from Bernier and Dorre Islands in Shark Bay (DEC, 2006c).

The Pilbara Olive Python frequents rock-pools in gullies throughout the Pilbara (DEC, 2006c), and is unlikely to occur within the application area, due to the lack of suitable habitat.

The Little North-western Mastiff Bat, is found along the Western Australian coastline, from Derby to Exmouth Gulf, where it is known to roost in mangroves (DEC, 2006c). As there are no mangroves within the application area, this species is unlikely to be impacted by the proposed clearing.

The Burrowing Skink is known from only one location, south-east of Karratha (DEC, 2006c).

The Western Pebble-mound Mouse occurs most commonly on lower slopes of rocky hills (DEC 2006c), and it is possible that it occurs within the application area, however no pebble mounds were found during the flora survey or opportunistic fauna survey of the application area (Robe River Iron, 2006). This species is relatively widespread throughout the Pilbara, and the proposed clearing is unlikely to have any significant impact on this

species.

The Eastern Curlew is a migratory visitor to reef flats and beaches along the West Australian Coast (DEC, 2006c), and is unlikely to be significantly impacted by the proposed clearing.

The Flock Bronzewing inhabits sparsely wooded grassy plains (DEC, 2006c), and the application area is unlikely to provide suitable habitat for this species.

The fauna habitat within the application area consists of open shrubland with a dense grass/herb understorey, and some rocky outcrop (Robe River Iron, 2006). The vegetation associations and habitat types within the application area are well represented in surrounding areas (GIS Database, Robe River Iron, 2006), and the proposed clearing is unlikely to have any significant impact on fauna habitat in the region.

Based on the flora and vegetation survey of the area, the area is unlikely to contain restricted/significant habitat for conservation significant fauna (DEC, 2006a).

The proposed clearing is not likely to be at variance to this principle.

Methodology DEC (2006a).
DEC (2006c).
GIS Database: Threatened Fauna - CALM 30/9/05
Robe River Iron (2006).

(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

The nearest known Priority Flora are six populations of *Terminalia supranitifolia* (P3), located on the Burrup Peninsula, approximately 38-58km west of the application area (GIS Database). DEC databases have no records of any other populations of Declared Rare or Priority flora within a 50km radius of the areas applied to clear (GIS Database).

A flora survey of the application area was conducted on 25 May 2006 (Pilbara Iron, 2006). No Declared Rare or Priority Flora were recorded within the survey area.

The proponent has undertaken the required flora and vegetation survey of the area, the results of which suggest that the area does not contain flora of conservation significance (DEC, 2006a). The proposed clearing is unlikely to impact on any Declared Rare or Priority flora.

The proposed clearing is not likely to be at variance to this principle.

Methodology DEC (2006a).
GIS Database: Declared Rare and Priority Flora List - CALM 01/07/05.
Pilbara Iron (2006).

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

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

There are no known Threatened Ecological Communities in the vicinity of the areas applied to clear (DEC, 2006a; GIS Database). The nearest known endorsed TEC's are the *Themeda* Grassland communities which are located approximately 180km south of the application area (GIS Database). The nearest known ecosystem of conservation significance is the Millstream stygofauna community (a non-endorsed TEC), located approximately 100km south of the application area (GIS Database). The proposed clearing is unlikely to have any impact on Threatened Ecological Communities.

The proposed clearing is not likely to be at variance to this principle.

Methodology DEC (2006a).
GIS Database: Threatened Ecological Communities - CALM 12/04/05.

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

Comments Proposal is not at variance to this Principle

The application area falls within the Pilbara Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Shepherd et al. (2001) report that approximately 99.9% of the pre-European vegetation still exists in the IBRA Pilbara Bioregion. The vegetation in the application area is broadly mapped as Beard Vegetation Association 157: Hummock grasslands, grass steppe; hard spinifex, *Triodia wiseana* (GIS Database). Shepherd et al, (2001) report that there is approximately 99.8% of this vegetation type remaining, of which 17.2% occurs within reserves. The area proposed to clear does not represent a significant remnant of native vegetation.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation Status**	% in reserves/DEC-managed land
IBRA Bioregion - Pilbara Shire of Roebourne	17,804,164*	17,794,651*	99.95%	Least concern	
No information available					
Beard vegetation association - 157	502,737	501,522	~99.8%	Least concern	17.2%

* Shepherd et al. (2001)

** Department of Natural Resources and Environment (2002)

The proposed clearing is not at variance to this principle.

Methodology Dept of Natural Resources and Environment (2002).
GIS Database:
- Pre-European Vegetation - DA 01/01.
- IBRA Regions
Shepherd et al. (2001).

(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

There are no permanent watercourses or wetlands within the areas proposed to clear (GIS Database). The application area is within 2km of the coastline, and there is a seasonally inundated saline coastal flat immediately to the east of the application area (GIS Database). Two seasonal creeklines run through the application area, connecting to the coastal flat. According to the construction camp plans submitted by the proponent there will be no infrastructure in close proximity to these two seasonal creek lines. The proponent has advised that disturbance to these creeklines and associated riparian vegetation will be avoided and that no creek crossings will be required (Robe River Iron, 2006). The proposed clearing is unlikely to have any significant impact on any watercourse or wetland.

The proposed clearing is not likely to be at variance to this principle.

Methodology BHP Billiton (2006).
GIS Database: Hydrography, Linear - DOE 01/02/04.
Robe river Iron (2006).

(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

There are no recorded acid sulphate soils within the application area (GIS Database).

The area proposed to clear is mapped as the Rocklea and Cheerawarra Land Systems (GIS Database).

The Rocklea Land System which makes up approximately 32 ha (34%) of the application area consists of basalt hills, plateaux, lower slopes and minor stony plains (Van Vreeswyk, et al., 2004) This land system has a very low erosion risk under pastoral use, however vegetation clearing may create an accelerated risk of erosion in drainage lines and channels (Van Vreeswyk et al., 2004). Minimal clearing is required within this land system, for the construction of a powerline, and the proposed clearing within this land system is not likely to result in appreciable land degradation.

The Cheerawarra Land System which makes up approximately 63 ha (66%) of the application area consists of sandy coastal plains and saline clay plains. Most units of this land system are highly susceptible to wind erosion if vegetation cover is removed (Van Vreeswyk et al., 2004). The proposed site for the construction camp falls within the sand plain unit of the Cheerawarra Land System (DAFWA, 2006).

The Commissioner, Soil and Land Conservation has advised that the soils of the Cheerawarra Land System are susceptible to both wind and water erosion after clearing, and has concluded that the proposed clearing may result in soil erosion, unless adequate precautions are taken (DAFWA, 2006).

The proponent has advised that appropriate measures will be implemented to minimise erosion and groundwater run-off (Robe River Iron, 2006). Clearing for the construction camp will be managed through the Construction Environmental Management Plan for the Cape Lambert port upgrade, which will contain detailed procedures to be followed for clearing, protection of flora and fauna, topsoil management, drainage and rehabilitation (Robe River Iron, 2006).

Provided appropriate erosion control measures are implemented, the proposed clearing is unlikely to cause appreciable land degradation.

The proposed clearing is not likely to be at variance to this principle.

Methodology DAFWA (2006).
GIS Database:
- Acid Sulphate soil risk map, Pilbara Coastline, DEC.
- Rangeland Land System mapping - DA
Robe River Iron (2006).
Van Vreeswyk et al., (2004).

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

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

There are no conservation areas in close proximity to the application area. The nearest DEC managed land is the Delambre Island Nature Reserve, approximately 18 km offshore. The nearest onshore DEC managed land is the Millstream Chichester National Park, approximately 57 km south of the application area (GIS Database).

Several nearby islands are listed for their natural values on the Register of the National Estate, under 'Coastal Islands Dixon Island to Cape Keraudren'. The nearest of these islands are Dixon Island which is located approximately 6km west/northwest of the application area; and Bezout Island, located approximately 7km north/northeast of the application area (GIS Database).

It is not expected that any of the nearby DEC managed lands would be impacted by this proposal, based on distances separating the areas in question (DEC, 2006a).

The proposed clearing is not likely to be at variance to this principle.

Methodology DEC (2006a).
GIS Database:
- CALM Managed Lands and Waters - CALM 1/07/05.
- Register of National Estate - EA 28/01/03.

(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 watercourses or waterbodies in the vicinity of the application area (GIS Database). The proposed clearing is unlikely to result in increased surface water run-off.

The application area is within 2 km of the coastline, and the groundwater of the area is recorded as between 1000-3000 tds/mg/l (GIS Database). The proposed clearing is unlikely to have any impact on the groundwater level or quality. The proposed clearing is unlikely to have any significant impact on surface or underground water quality.

The proposed clearing is not likely to be at variance to this principle.

Methodology GIS Database:
- Groundwater Salinity, Statewide - 22/02/00
- Hydrography, Linear - DOE 1/02/04.

(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**

Natural flooding occurs occasionally during the wet season (November to March) following significant rainfall.

There are no permanent watercourses within the application area (GIS Database). The proposed clearing of up to 30 ha within a total area of approximately 95 ha is not likely to cause or exacerbate the incidence or intensity of flooding.

The proposed clearing is not likely to be at variance to this principle.

Methodology GIS Database: Hydrography, Linear - DOE 1/02/04.

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

Comments

There is a native title claim over the area under application. This claim has been registered with the National Native Title Tribunal (WC99-014) (GIS Database). However, the land tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (ie. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Heritage Sites within the area applied to clear. However there are several registered Aboriginal Heritage Sites in the surrounding area, the nearest of which (Site ID 8798) is located approximately 60 m to the south of the southeastern corner of 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.

Robe River Iron Associates have a current Works Approval (No. 4114), granted in accordance with the *Environmental Protection Act 1986*. The Department of Environment and Conservation have advised that an amendment to the licence will be required for the establishment of the construction camp (DEC, 2006b).

There is no current groundwater licence in force for this property (DoW, 2006). If water is required for the project, the proponent is advised to consult with the Department of Water to determine whether a water licence is required in accordance with the *Rights in Water and Irrigation Act 1914*. If any disturbance of riparian vegetation or any creek crossings are required, the proponent is advised to consult with the Department of Water to determine whether a Bed and Banks Permit is required (DoW, 2006).

One public submission was received in respect of the clearing permit application, which raised concerns that Robe River Iron Associates did not have land tenure over the majority of the application area, and did not have Town Planning approval for the proposed construction camp development. Robe River Iron Associates have subsequently applied for and received town planning approval for the proposed construction camp development (Robe River Iron, 2006). The construction camp proposal has also been approved by the Minister for State Development, pursuant to the *Iron Ore (Robe River) Agreement Act 1964*. The Minister for State Development has granted Robe River Iron Associates a four year lease over Ministerial Reserve 35813 for the purposes of establishing a construction camp for the upgrade of the Cape Lambert port facilities (Minister for State Development, 2006).

Methodology DEC (2006b).
DoW (2006).
GIS Database:
- Aboriginal Sites of Significance - DIA 04/07/02.
- Native Title Claims - DLI 19/12/04.
Minister for State Development (2006).
Robe River Iron Associates (2006).

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Miscellaneous	Mechanical Removal	30	Grant	<p>The proposal has been assessed against the clearing principles. The proposal is either not at variance, or not likely to be at variance to any of the clearing principles. The assessing officer therefore recommends that the permit should be granted, subject to the following conditions:</p> <ol style="list-style-type: none">1. The Permit Holder shall record the following for each instance of clearing:<ol style="list-style-type: none">a) location where clearing occurred (using Geocentric Datum Australia 1994);b) purpose of clearing;c) area cleared in hectares;d) area rehabilitated in hectares.2. The Permit Holder shall provide a report to the Director, Environment, Department of Industry and Resources by 31 March each year setting out the records required under Condition 1 of this permit in relation to clearing carried out between 1 January and 31 December of the previous year.3. The Permit Holder shall retain the vegetative material and topsoil removed by clearing in accordance with this Permit and shall, after the removal of the construction camp and associated infrastructure and prior to the expiry of the clearing permit, respread the vegetative material and topsoil on the cleared areas.4. The Permit Holder shall provide a report to the Director, Environment, Department of Industry and Resources by 25 October 2010 setting out the records required under Condition 1 of this permit in relation to clearing and rehabilitation carried out between 1 January and 25 October 2010.

5. References

- DAFWA (2006) Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Industry and Resources (DoIR). Office of the Commissioner of Soil and Land Conservation, Department of Food and Agriculture Western Australia.
- DEC (2006a) Land clearing proposal advice. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Industry and Resources (DoIR). Department of Environment and Conservation, Western Australia.
- DEC (2006b) Licence Advice. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Industry and Resources (DoIR). Department of Environment and Conservation, Western Australia.
- DEC (2006c) Threatened Fauna Information - Cape Lambert area. A Search of the DEC Threatened and Priority Fauna Database. Department of Environment and Conservation, 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.
- DoW (2006) Water Allocation/Licence Advice. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Industry and Resources (DoIR). Department of Environment and Conservation, 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.
- Minister for State Development (2006) Iron Ore (Robe River) Agreement Act 1964 - Additional Proposal - Cape Lambert Construction Camp. Letter from the Minister to Robe River Mining Company Pty Ltd. Government of Western Australia.
- Pilbara Iron (2006a) Botanical Survey Advice No. 2006/048. Pilbara Iron: Cape Lambert Accommodation Rare Flora Survey. Pilbara Iron, Western Australia.
- Pilbara Iron (2006b) Proposed Cape Lambert Accommodation Village Flora and Vegetation Survey. Pilbara Iron, Western Australia.
- Robe River Iron (2006) Application for a Purpose Permit for a Construction Camp at Cape Lambert. Robe River Iron Associates, 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., Updated 2005.
- Van Vreeswyk, A.M.E., Payne, A.L., Hennig, P., and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia. 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.
DoE	Department of Environment, Western Australia.
DoIR	Department of Industry and Resources, Western Australia.
DOLA	Department of Land Administration, Western Australia.
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.