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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5621/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Gondwana Resources Limited**

1.3. Property details

Property: Mining Lease 77/562
Mining Lease 77/893
Local Government Area: Shire of Yilgarn
Colloquial name: Buffalo Gold Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
35		Mechanical Removal	Construction of mining infrastructure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 18 July 2013

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 for the whole of Western Australia. One Beard vegetation association has been mapped within the application area (GIS Database):

Beard vegetation association 1068: Medium woodland; salmon gum, morrel, gimlet & *Eucalyptus sheathiana* (Government of Western Australia, 2013; GIS Database).

A flora and vegetation survey conducted by Botanica Consulting (2012) during 29 to 30 November 2012 identified four broad vegetation communities within the application area:

1. Low forest of regrowth *Eucalyptus* sp. (sterile) over open low scrub of *Eremophila scoparia* and open dwarf scrub of *Eremophila maculata*;
2. Low woodland of *Eucalyptus salmonophloia/Eucalyptus salubris* over scrub of *Melaleuca pauperiflora* subsp. *Fastigiata* and open dwarf scrub of *Atriplex vesicaria/Tecticornica disarticulata;*
3. Low woodland of *Eucalyptus longicornis* over scrub of *Melaleuca pauperiflora* subsp. *fastigiata* and open dwarf scrub of *Atriplex vesicaria/Tecticornia disarticulata*; and
4. Very open tree mallee of *Eucalyptus capillosa* subsp. *Polyclada/Eucalyptus loxophleba* subsp. *lissophloia* over low scrub of *Allocasuarina campestris* and dwarf scrub of *Microcybe multiflora* on laterite rise.

Areas of cleared vegetation were also noted within the application area (Botanica Consulting, 2012).

Clearing Description

Gondwana Resources Limited is proposing to clear up to 35 hectares of native vegetation within an application area of 118 hectares for the purpose of mining infrastructure for the Parker Range Gold project for the Buffalo pit.

The vegetation will be cleared by mechanical means. The vegetation and topsoil will be stockpiled separately for use in rehabilitation.

Vegetation Condition

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

Comment

The application area is located within the Merredin subregion of Western Australia and is situated approximately 53 kilometres south-east of the Southern Cross town site (GIS Database).

The vegetation condition was derived from a vegetation survey conducted by Botanica Consulting (2012).

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 occurs within the Avon Wheatbelt P1 subregion of the Avon Wheatbelt Interim Biogeographical Regionalisation for Australia (IBRA) bioregion and the Southern Cross subregion of the Coolgardie IBRA bioregion (GIS Database). The Avon Wheatbelt P1 subregion is described as proteaceous scrub-heaths, rich in endemics on residual lateritic uplands and derived sandplains; mixed eucalypt, *Allocasuarina huegeliana* and Jam-York Gum woodlands on quaternary alluvials and eluvials (CALM, 2002).

Botanica Consulting (2012) conducted a flora and vegetation survey over the application area during 29 to 30 November 2012. The flora and vegetation survey identified four vegetation communities within the application area. The area proposed to be cleared is not considered to be remnant vegetation and areas have been disturbed by historical mining activities and grazing. The condition of the vegetation types are classified as 'good' (Keighery, 1994; Botanica Consulting, 2012). The flora survey identified a total of 51 vascular plant taxa from 18 families and 34 genera within the application area. Species composition and vegetation communities are typical of the area and not considered to be unusually diverse (Botanica Consulting, 2012).

A search of the Department of Environment and Conservation's Threatened and Priority Flora databases revealed no records of Threatened Flora and three Priority Flora species within a 10 kilometre radius of the application area (DEC, 2013). No Threatened Flora species were identified during the flora survey by Botanica Consulting (2013). Botanica Consulting (2012) recorded one Priority Flora species within the application area; *Calamphoreus inflatus* (Priority 4). This species was recorded within four locations within the application area (Lindbeck, 2013). This Flora species has been recorded in several locations outside the application area in the local and regional area (DEC, 2013). The proposed clearing is not likely to impact the conservation significance of this species.

The application area is located on the south-east margin of the Parker Range vegetation complexes Priority Ecological Community (PEC) (Priority 3). This PEC encompasses an area of approximately 55,960 hectares. Botanica Consulting (2013) undertook a PATN analysis to compare the vegetation of the application area to the PEC. The results suggest that one of the vegetation types that characterise the PEC were similar to vegetation types identified within the application area (Botanica Consulting, 2012). The application area will impact approximately 0.05 percent of the PEC (Lindbeck, 2013); therefore it is considered unlikely that the proposed clearing will impact upon the Parker Range vegetation complexes.

No Threatened Ecological Communities were recorded within the application area (GIS Database).

There was two weed species identified during the survey; Maltese cockspur (Centaurea melitensis) and Stinkwort (Dittrichia graveolens) (Botanica Consulting, 2012). 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.

There were four fauna habitat types recorded within the application by AES (2013). All faunal habitats within the application area are considered to be common and widespread within the subregion and faunal assemblages are unlikely to be different to those found in similar habitat located elsewhere in the region (GIS Database). The clearing of 35 hectares of native vegetation within the 118 hectare application area is unlikely to have a significant impact on faunal diversity in a regional and local context.

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

Methodology

AES (2013)
Botanica Consulting (2012)
CALM (2002)
DEC (2013)
Lindbeck (2013)
Keighery (1994)
GIS Database:
- IBRA WA (Regions - Subregions)
- Pre-European vegetation
- Threatened Ecological Sites Buffered

(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 were four broad fauna habitat types recorded within the application area based on level one fauna survey by AES (2013);

1. *Eucalyptus* over dwarf scrub – comprised of a variety of woodland *Eucalyptus* species, with the occasional patch of mallee *Eucalyptus* species, over a lower story of dwarf scrub including saltbush,

bluebush and chenopods;
2. *Eucalyptus* over taller scrub and dwarf scrub – comprised of a variety of woodland *Eucalyptus* species over a mid story scrub comprising mainly of *Melaleuca pauperiflora* over an under story of dwarf scrub including saltbush, bluebush and chenopods;
3. Rock outcrops – there was a small number of natural hillocks with rock outcrops; and
4. Disturbed mined areas.

AES (2013) identified the vegetation condition to be 'good' (Keighery, 1994). The landforms and habitat found within the application area are considered as being well represented in the local region (GIS Database; AES, 2013). The application area does not contain habitats or faunal assemblages that are ecologically significant (AES, 2013; GIS Database). The clearing of 35 hectares of native vegetation is not likely to contain significant habitat for fauna.

AES (2013) conducted a level one fauna survey of the application area between 25 and 26 November 2012. There were three species of conservation significance recorded by AES (2013) within the application area during the faunal survey;

- Rainbow Bee-eater (*Merops ornatus*) (EPBC Act - Migratory species; JAMBA, CAMBA);
- Crested Shrike-tit (*Falcunculus frontatus leucogaster*) (DEC – Priority 4); and
- Crested Bellbird (*Oreoica gutturalis* ssp. *gutturalis*) (DEC – Priority 4).

The Rainbow Bee-eaters are seasonally widespread and common in southern Western Australia and utilise both natural and degraded habitats. These birds could potentially use the application area and adjoining areas for foraging, roosting and possibly breeding but they would not be specifically attracted to the site (AES, 2013). The Crested Shrike-tit and Crested Bellbird may use the application area for foraging as part of a larger territory area and are considered highly mobile (AES, 2013). The Crested Shrike-tit has not often been recorded in this region, however as the species if considered highly mobile and the area does not contain any core habitat for the species, it is not likely to be impacted by the proposed clearing (AES, 2013).

There was no natural habitats found that would be ideal for populations of Short Range Endemic species within the application area (AES, 2013).

The proposed clearing of 35 hectares of native vegetation within a 118 hectare application area is not likely to impact critical feeding or breeding habitat for any conservation significant fauna species as the application area does not contain significant habitat for the potential species.

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

Methodology
AES (2013)
Botanica Consulting (2012)
DEC (2013)
Keighery (1994)
GIS Database:
- Cheritons Find 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 Threatened Flora within the application area (GIS Database). A search of the Department of Environment and Conservation's Threatened and Priority Flora databases identified no Threatened Flora species as occurring within a 10 kilometre radius of the application area (DEC, 2013).

Botanica Consulting (2013) conducted a flora and vegetation survey of the application area and surrounding region from 29 to 30 November 2012. No Threatened Flora was recorded within the survey area.

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

Methodology
Botanica Consulting (2013)
DEC (2013)
GIS Database:
- Threatened 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 showed that there are no known Threatened Ecological Communities recorded 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 likely to be at variance to this Principle

The application area falls within the Avon Wheatbelt Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). The vegetation within the application area is recorded as:

Beard vegetation association 1068: Medium woodland; salmon gum, morrel, gimlet & *Eucalyptus sheathiana* (Government of Western Australia, 2013; GIS Database).

The application area falls within the Avon Wheatbelt IBRA bioregion in which approximately 18.7% of the pre-European vegetation remains (see table) (GIS Database, Government of Western Australia, 2013). The vegetation of the application area has been partially mapped as Beard vegetation association 1068 (GIS Database). This Beard vegetation association has over 50% remaining at a State level and less than 50% remaining at a Bioregional level (Government of Western Australia, 2013). The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30% of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). Beard vegetation association 1068 is above the 30% threshold, however, the Avon Wheatbelt bioregion and Merredin subregion are below this level. Whilst the application area is situated within a region that has been extensively cleared, the application area itself is neither a remnant nor does it form part of any remnants within the local area (GIS Database).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves (and post clearing %)
IBRA Bioregion - Avon Wheatbelt	9,517,110	1,778,407	~18.69	Vulnerable	1.81 (7.12)
IBRA Subregion - Merredin	6,524,180	1,368,789	~20.98	Vulnerable	1.38 (6.57)
Local Government - Kondinin	3,042,759	2,480,372	~81.52	Least Concern	15.53 (19.06)
Beard vegetation associations - State					
1068	268,899	142,088	~52.84	Least Concern	6.23 (11.80)
Beard vegetation associations - Bioregion					
1068	74,875	37,2480	~49.75	Depleted	3.48 (7.00)
Beard vegetation associations - subregion					
1068	74,875	37,248	~49.75	Depleted	3.48 (7.00)

* Government of Western Australia (2011)
** Department of Natural Resources and Environment (2002)

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

Methodology Commonwealth of Australia (2001)
Department of Natural Resources and Environment (2002)
Government of Western Australia (2013)
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 application will avoid any ephemeral drainage channels. Any impact on some of the shallow ephemeral drainages will be minimal and no drainage paths will be modified or blocked (Lindbeck, 2013; GIS Database).

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

Methodology

Lindbeck (2013)
GIS Database:
- Cheritons Find 1.4m Orthomosaic - Landgate 2003
- 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 is not likely to be at variance to this Principle

The application area is on relatively flat terrain (Lindbeck, 2013). The general morphology of the area is dominated by a major valley incised in the less resistant granitoid dome. The valley is bounded by erosionally resistant ridges of branded ironstone formations (Lindbeck, 2013). The soils in the local area are gypseous and saline loams, together with grey-brown highly calcareous earths (Northcote, 1979). The low relief, climatic conditions and soil type in the application area are indicative of low erosion potential.

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

Methodology

Lindbeck (2013)
Northcote (1979)

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

Comments

Proposal is not likely to be at variance to this Principle

The application area is not located within any conservation area (GIS Database). The nearest conservation area is Jilbadji Nature Reserve, located approximately 19 kilometres east of the application area (GIS Database).

Given the distance of the application area from Jilbadji Nature 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

The application area is not located within a Public Drinking Water Source Area (GIS Database). The application areas are located within the proclaimed Goldfields groundwater area under the *Rights in Water and Irrigation Act 1914* (GIS Database). Any groundwater extraction and/or taking or diversion of surface water for the purposes other than domestic and/or stock watering is subject to licence by the Department of Water.

There are no permanent watercourses or water bodies within the application area (GIS Database). Several ephemeral drainage tracts transect the application area (GIS Database). These drainage tracts are dry for most of the year and only flow and hold surface water for short durations following significant rainfall events (GIS Database).

The application has a groundwater salinity that is brackish to hypersaline (20,000 - 134,000 milligrams/Litre Total Dissolved Solids) (GIS Database). Samples by Gondwana Resources Limited (Lindbeck, 2013) show that the groundwater approximately 4 kilometres west of the application area is brackish at the water table (approximately 20,000 ml/L TDS) and becomes saline at the base of the deposit (approximately 60,000 mg/L TDS). Groundwater samples collected nearby from another open pit indicate he groundwater is hypersaline

(134,000 mg/L TDS) (Lindbeck, 2013). The clearing of 35 hectares of native vegetation within an application area of 100 hectares is unlikely to result in deterioration in surface or groundwater quality in the local area.

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

Methodology Lindbeck (2013)
GIS Database:
- Geodata, Lakes
- Groundwater Salinity, Statewide
- Hydrography, Linear
- Public Drinking Water Source Areas
- RIWI Act, Groundwater Areas

(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 an arid to semi-arid warm Mediterranean climate with an annual average of approximately 303.1 millimetres per year (CALM, 2002; BoM, 2013). Based on an average annual evaporation rate of 2,400 - 2,800 millimetres (BoM, 2013), any surface water resulting from rainfall events is likely to be relatively short lived.

Given the size of the area to be cleared (35 hectares) compared to the size of the Swan Avon-Yilgarn catchment area (5,836,045 hectares) (GIS Database) it is not likely that the proposed clearing will lead to an appreciable increase in run off, and subsequently cause or exacerbate the incidence or intensity of flooding.

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

Methodology BoM (2013)
CALM (2002)
GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There are no Native Title claims over the area under application. However, 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 Site 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 Regulation (formerly 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.

The clearing permit application was advertised on 10 June 2013 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, and these concerns were passed on to the applicant.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Registered with the NNTT

4. References

Australasian Ecological Services (AES) (2013) Buffalo and Spring Hill Fauna Assessment - Level 1 Desktop and On-Site Survey. Prepared for Gondwana Resources Limited, March 2013.

BoM (2013) Climate Statistics for Australian Locations. A Search for Climate Statistics for Southern Cross Airfield, Australian Government Bureau of Meteorology, viewed 8 July 2013, <http://reg.bom.gov.au/climate/averages/tables/cw_012320.shtml>.

Botanica Consulting (2012) Level 2 Flora & Vegetation Survey of the Buffalo-Spring Hill Survey Area. Prepared for Gondwana Resources Limited, December 2012.

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

DEC (2013) NatureMap - Mapping Western Australia Biodiversity, Department of Environment and Conservation, viewed 8 July 2013, <http://naturemap.dec.wa.gov.au>.

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

Subregions.
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.
Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
Keith Lindbeck & Associates (Lindbeck) (2013) Gondwana Resources Ltd - Parker Range Project, Buffalo Gold Pit. Supporting Clearing Permit Application M77/657 & M77/762. Prepared for Gondwana Resources Ltd, May 2013.
Northcote (1979) A factual key for the recognition of Australian soils. Fourth Edition, 1979. Rellim Technical Publications Pty Ltd, Adelaide, SA.
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.

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.