Government of Western Australia
Department of Mines and Petroleum

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4831/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: BHP Billiton Iron Ore Pty Ltd

1.3. Property details

Property: *Iron Ore (Mount Goldsworthy) Agreement Act 1964*, Mineral Lease 281SA (AML 70/281)
Local Government Authority: Shire of East Pilbara
Colloquial name: Mining Area C

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
37		Mechanical Removal	Mineral Production and Associated Infrastructure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 16 February 2012

2. Background

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 and are useful to look at vegetation in a regional context. Two Beard vegetation associations have been mapped within the application area (GIS Database; Shepherd, 2009):

Beard vegetation association 18: Mulga low woodland; continuous;

and

Beard vegetation association 82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wieseana*.

The application area is covered by the following flora and fauna surveys:

- South Flank NVCP Extension Flora, Vegetation and Fauna Assessment (ENV, 2010);
- Flora and Vegetation Survey Area C and Surrounds (Onshore, 2011); and
- South Flank Vertebrate Fauna Study (Biologic, 2011).

The application area contains three vegetation associations, as described by ENV (2010) and Onshore (2011):

1a – Acacia High Open Shrubland: High open shrubland of *Acacia aneura* var. *aneura*, *A. aneura* var. *pilbarana* and *A. pruinocarpa* with very open tussock grassland of *Aristida holathera* var. *holathera, Themeda triandra* and *A. contorta* on red-brown loam on plains.

2a – Triodia Open Hummock Grassland: Open hummock grassland of *Triodia wiseana, T. pungens* and *T. epactia* with open shrubland of *Acacia pruinocarpa, A. aneura* var. *conifera* and *A. maitlandii* with scattered low trees of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia deserticola* subsp. *deserticola* on red-brown loam on rocky hillslopes (mapped as vegetation association 13j in Onshore [2011]).

3a – Themeda Tussock Grassland: Tussock grassland of *Themeda triandra, Paraneurachne muelleri* and *Cymbopogon obtus* with low shrubland of *Petalostylis labicheoides, Scaevola parvifolia* subsp. *pilbarae* and *Keraudrenia nephrosperma* with low open woodland of *Eucalyptus* sp. and *Corymbia hamersleyana* on red-brown clay loam on drainage lines / floodplains (mapped as vegetation association 16e in Onshore [2011]).

Clearing Description

BHP Billiton Iron Ore Pty Ltd (BHP Billiton) is proposing to clear up to 37 hectares of native vegetation within a 150.3 hectare application area for the Mining Area C Medium Term Warehouse project (BHP Billiton, 2012a). The clearing of vegetation is required for construction and maintenance of:

- Buildings and facilities, including warehouse, dispatch and receiving yard; yard area, undercover storage area, bunded hydrocarbon storage area and offices;
- Access roads and hardstands;
- Services, including electricity, communications and water;
- A waste water treatment plant (WWTP); and
- An automatic weather station (AWS) at the Area C (Coondewana) Airport (BHP Billiton, 2012a).

Vegetation Condition

Completely degraded: No longer intact; completely/almost completely without native species (Keighery, 1994);

To:

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).

Comment

The application area is located in the Hamersley subregion of Western Australia and is situated approximately 100 kilometres north-west of the town of Newman (BHP Billiton, 2012a).

The vegetation condition was derived from a vegetation survey conducted by ENV (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

Proposal may be at variance to this Principle

The application area occurs within the Hamersley (PIL3) subregion of the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by sedimentary ranges and plateaux, dissected by gorges. At a broad scale, the vegetation can be described as Mulga low woodlands over bunch grasses on fine textured soils in valley floors and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges (CALM, 2002).

The vegetation within the application area consists of Beard vegetation associations 18 and 82, which are common and widespread throughout the Pilbara bioregion with approximately 100% of the pre-European vegetation extent remaining (Shepherd, 2009; GIS Database). Studies by ENV (2010) and Onshore (2011) of the application area and surrounding area identified three vegetation types. The condition of these vegetation types classified from 'completely degraded' to 'excellent' (Keighery, 1994).

No Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) were recorded or identified within the application area, or adjacent to the study area, or are likely to be affected by the proposal (GIS Database). The ENV (2010) survey identified one vegetation association (3b) as representative of the Coolibah-lignum Flats PEC (Priority 3) listed by the DEC, however the nearest occurrence of this vegetation association is six kilometres south of the application area. None of the three vegetation associations that occur within the application area are associated with a PEC (BHP Billiton, 2012b).

A search of the Department of Environment and Conservation Declared Rare and Priority Flora databases revealed 18 Priority Flora species which may potentially occur within a 20 kilometre radius of the application area. This search revealed one potential Declared Rare Flora (DRF) species – *Lepidum catapycnon* – Hamersley Lepidum (DEC, 2012).

The following studies (ENV, 2010; Onshore, 2011) identified no DRF and one Priority Flora species within the application area. Three populations of the DEC listed Priority 3 species, *Rhagodia* sp. Hamersley (M. Trudgen 17794) were identified in the application area and throughout the surrounding area. These populations will not be disturbed by the clearing proposal (BHP Billiton, 2012b).

Two introduced flora species were recorded in the ENV (2010) survey boundary, however neither of these species were recorded in the application area. 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.

Of three fauna habitats described by BHP Billiton (2012b), one was described as of moderate habitat value and the others as low habitat value for fauna species. The habitat of moderate value, Alluvial Plain is of higher complexity than surrounding vegetation and therefore provides a different array of niches for fauna species to exploit. Conservation significant fauna species likely to utilise this habitat type are the Australian Bustard (*Ardeotis australis*) and Bush Stone-curlew (*Burhinus grallarius*), and to a lesser extent the Grey Falcon (*Falco hypoleucos*) and the Peregrine Falcon (*Falco peregrines*) as part of a larger home range (BHP Billiton, 2012b; ENV, 2010).

Despite the moderate value of this habitat, it is not restricted to the application area and is located more broadly within the survey areas of ENV (2010) and Biologic (2011). No fauna habitats are present that are likely to have a higher level of biodiversity than the surrounding areas and the vegetation surrounding the application area is of a similar type and generally of the same or better condition (BHP Billiton, 2012b).

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

Methodology

BHP Billiton (2012b)
Biologic (2011)
CALM (2002)
DEC (2012)
ENV (2010)

Keighery (1994)
Onshore (2011)
Shepherd (2009)
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

Broadly, the fauna habitats which are present in the application area are (BHP Billiton, 2012b):

- Alluvial Plain – Moderate Habitat Value (ENV, 2010);
- Hill Slopes – Low Habitat Value (ENV, 2010); and
- Sandy Areas – Low Habitat Value (Biologic, 2011).

BHP Billiton (2012b) identified the vegetation condition to be 'good' (Keighery, 1994). The vegetation and habitat found within the application area is considered to be well represented in the Pilbara bioregion (BHP Billiton, 2012b).

There is approximately 100% of the pre-European vegetation remaining within the Pilbara bioregion (Shepherd, 2009; 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.

An assessment on results from database searches yielded a number of conservation significant fauna potentially occurring in the application area (DEC, 2012). While some of these species may utilise the habitats in the application area, the proposed loss of habitat is likely to have a low impact on the fauna taxa. This is due to the widespread nature of the fauna taxa and the fact that similar habitat in a similar condition is available in the surrounding areas (BHP Billiton, 2012b).

BHP Billiton (2012b) lists five conservation significant fauna with the potential to occur in the application area, two of which have been recorded in fauna surveys of the application area:

- Australian Bustard (*Ardeotis australis* – Priority 4 - recorded);
- Bush Stone-curlew (*Burhinus grallarius* – Priority 4);
- Grey Falcon (*Falco hypoleucos* – Priority 4);
- Western Pebble-mound Mouse (*Pseudomys chapmani* – Priority 4 - recorded); and
- Peregrine Falcon (*Falco* peregrines - Schedule 4).

Clearing within the application area is expected to have a low impact on these species as similar habitat, in better condition is located in the vicinity of the application area. Additionally, both the Australian Bustard and Western Pebble-mound Mouse are widely distributed in Western Australia. The recording of the Western Pebble-mound Mouse was of an inactive mound. No active mounds were found in the application area (BHP Billiton, 2012b).

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

Methodology

BHP Billiton (2012b)
Biologic (2011)
DEC (2011)
ENV (2010)
Keighery (1994)
Shepherd (2009)
GIS Database:
- IBRA WA (regions - subregions)
- Pre-European Vegetation

(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 Declared Rare and Priority Flora databases identified no DRF species as occurring within a 20 kilometre radius of the application area (DEC, 2012).

Vegetation and flora surveys of the application area (ENV, 2010; Onshore, 2011) found no DRF within the application area.

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

Methodology DEC (2012)
ENV (2010)
Onshore (2011)
GIS Database:
- Threatened and Priority Flora

(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 (TECs) within or adjacent to the application area (GIS Database).

The application area falls within the buffer of PEC 'Coolibah-lignum flats: *Eucalyptus victrix* over *Muehlenbeckia* Community'. None of the three vegetation associations that occur within the application area (ENV, 2010; Onshore, 2011) are associated with this or any other PEC (BHP Billiton, 2012b).

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

Methodology BHP Billiton (2012b)
ENV (2010)
Onshore (2011)
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 Pilbara IBRA bioregion (GIS Database). The vegetation within the application area is recorded as:

Beard vegetation association 18: Mulga low woodland; continuous;

and

Beard vegetation association 82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wieseana*.

Although several other clearing permits have been granted in the local area, the proposed clearing is not likely to have a significant impact upon vegetation representation at a regional scale. This is because of the extensive amount of vegetation remaining in the region of the pre-European extent and a similarly large amount of vegetation remaining of the applicable vegetation association.

According to Shepherd (2009), Beard vegetation associations 18 and 82 retain approximately 100% of their pre-European extent. Therefore, the areas proposed to be cleared are not a significant remnant of native vegetation in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Pilbara	17,804,193	17,785,000	~99.9	Least Concern	~6.32
Beard vegetation associations - State					
18	19,892,305	19,890,195	~99.9	Least Concern	~0.29
82	2,565,901	2,565,901	~100	Least Concern	~10.24
Beard vegetation associations - Bioregion					
18	676,557	676,557	~100	Least Concern	2.13
82	2,563,583	2,563,583	~100	Least Concern	~10.25

* 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 may be at variance to this Principle**

There are no permanent watercourses or wetlands within the application area, however, there are several minor, ephemeral drainage lines (GIS Database).

One vegetation association within the application area (3a) is found on drainage lines, however, vegetation associations surrounding the application area are of a similar type (BHP Billiton, 2012b) so the clearing of a small amount of native vegetation on drainage lines is unlikely to be significant.

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

Methodology BHP Billiton (2012b)
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 is not likely to be at variance to this Principle**

According to available databases, the application area is comprised of the:

Wannamunna land system: hardpan plains and internal drainage tracts supporting mulga shrublands and woodlands (occasionally *Eucalypt* woodlands);

Boolgeeda land system: Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands and mulga shrublands; and

Newman land system: Rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands (Van Vreeswyk et al., 2004; GIS Database).

The Wannamunna, Boolgeeda and Newman land systems are considered largely erosion resistant, being at the end of millions of years of erosion and withstanding massive rainfall events on an annual basis without any appreciable land degradation (Van Vreeswyk et al., 2004).

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

Methodology Van Vreeswyk et al. (2004)
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 application area is not located within any conservation area (GIS Database). The nearest conservation area is the Karijini National Park, which lies approximately 18 kilometres west of the application area. The small amount of clearing proposed is not likely to impact the environmental values of this area. The application area is not considered to form an ecological linkage to this area (BHP Billiton, 2012b).

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

Methodology BHP Billiton (2012b)
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 (PDWSA) (GIS Database).

There are no permanent watercourses or water bodies within the application area, although there are several minor drainage lines (GIS Database). Any surface water within the application area is likely to only remain for short periods following significant rainfall events as the annual evaporation rate exceeds rainfall (BoM, 2011). Given the small scale of the proposed clearing, there is no reason to expect that surface or groundwater quality in the area would become deteriorated (BHP Billiton, 2012b).

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

Methodology BHP Billiton (2012b)
BoM (2011)
GIS Database:
- Geodata, Lakes
- Hydrography, Linear
- Public Drinking Water Source 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 a semi-desert tropical climate with summer cyclonic or thunderstorm events, with an annual average rainfall of approximately 310 millimetres per year (CALM, 2002; BoM, 2011). Rainfall is usually experienced during summer months and can be either cyclonic or through thunderstorm events (CALM, 2002). It is likely that during times of intense rainfall there may be some localised flooding. The small size of the proposed clearing (37 hectares) is unlikely to significantly alter the intensity of flooding within the application area or surrounding areas.

The application area is located within the Ashburton River catchment area. However, given the size of the area to be cleared in relation to the size of the catchment area (787,774 hectares), the proposed clearing is not likely to increase the potential for flooding within the application area, local area or within the catchment (GIS Database).

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

Methodology BoM (2011)
CALM (2002)
GIS Database:
- Hydrographic Catchments - Catchments
- Hydrography, Linear

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

There is one Native Title claim (WC11/6) over the area under application (GIS Database). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. 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 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.

The clearing permit application was advertised on 23 January 2012 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received regarding the cumulative impacts of clearing. The matters raised in the submission were addressed by letter and also under Principle (e).

Methodology

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

4. References

BHP Billiton (2012a) Letter to the Department of Mines and Petroleum – BHP Billiton Iron Ore Mining Operations: Mining Area C Medium Term Warehouse, Application for a Native Vegetation Clearing Permit. BHP Billiton, 12 January 2012.

BHP Billiton (2012b) Area C Mining Operations – Area C Medium Term Warehouse – Application for a Native Vegetation Clearing Permit under the *Environmental Protection Act 1986*, Unpublished document, January 2012.

Biologic (2011) South Flank Vertebrate Fauna Study. Unpublished report for BHP Billiton.

BoM (2011) Climate Statistics for Australian Locations: 'Newman'. Bureau of Meteorology. Available at: http://www.bom.gov.au/climate/averages/tables/cw_007151.shtml.

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Pilbara 3 (PIL3 – Hamersley subregion) Department of Conservation and Land Management, Western Australia.

DEC (2012) NatureMap - Mapping Western Australia Biodiversity, Department of Environment and Conservation, viewed 25 January 2012, <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.

ENV (2010) South Flank NVCP Extension Flora, Vegetation and Fauna Assessment. Unpublished report for BHP Billiton.

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

Onshore (2011) Flora and Vegetation Survey Area C and Surrounds. Unpublished report for BHP Billiton.

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.

Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A & Hennig, P. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia, Department of Agriculture, Western Australia.

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.