



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 7733/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Cliffs Asia Pacific Iron Ore Pty Ltd

### 1.3. Property details

Property: Mining Lease 77/1259

Local Government Area: Shire of Menzies

Colloquial name: Claw Project

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 5 October 2017

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

**Vegetation Description** The vegetation of the application area is broadly mapped as the following Beard vegetation association (GIS Database):

141: Medium woodland; York gum, salmon gum and gimlet.

A Level 2 flora and vegetation survey was conducted over the application area and its surrounds by Biota Environmental Sciences (Biota) between August and December 2010 and April 2011. The following vegetation associations were recorded within the application area (Biota, 2011b):

1.01: *Acacia cockertoniana*, *A. ramulosa* var. *ramulosa* tall shrubland over *Philotheca brucei* subsp. *brucei*, *Eremophila clarkei*, *Dodonaea rigida* open shrubland.

1.02: *Acacia aneura*?, *A. ramulosa* var. *ramulosa* tall shrubland.

1.03: *Acacia* sp. narrow phyllode (B.R. Maslin 7831), *A. ramulosa* var. *ramulosa* tall shrubland over *Philotheca brucei* subsp. *brucei* open shrubland over *Eremophila metallicorum* low open shrubland.

1.05: *Acacia cockertoniana*, *Melaleuca leiocarpa*, *Calycopeplus paucifolius* tall shrubland over *Philotheca brucei* subsp. *brucei*, *Leucopogon* sp. Clyde Hill (M.A. Burgman 1207) shrubland.

1.06: *Dryandra arborea* (*Acacia cockertoniana*, *Eremophila clarkei*) tall shrubland over *Philotheca brucei* subsp. *brucei* shrubland over *Olearia humilis* scattered low shrubs.

2.01: *Eucalyptus salubris* and/or *E. loxophleba* subsp. *lissophloia* low open woodland over *Eremophila scoparia* (*Atriplex nummularia* subsp. *spathulata*) scattered tall shrubs over *A. stipitata* low open shrubland over *Sclerolaena diacantha*, *S. fusiformis* very open hermland.

2.02: *Eucalyptus longissima*, (*E. corrugata*) very open tree mallee over *Acacia ramulosa* var. *ramulosa* tall open shrubland over *Eremophila clarkei*, *E. decipiens* subsp. *decipiens*, *Scaevola spinescens* open shrubland over *Olearia muelleri*, *Ptilotus obovatus* var. *obovatus* low open shrubland.

2.05: *Eucalyptus longissima*, (*E. corrugata*) very open tree mallee over *Acacia cockertoniana* tall shrubland over *Eremophila clarkei*, *E. decipiens* subsp. *decipiens*, *Philotheca brucei* subsp. *brucei* open shrubland over *Olearia humilis*, *Ptilotus obovatus* var. *obovatus* scattered low shrubs.

2.06: *Eucalyptus loxophleba* subsp. *lissophloia* low open woodland over *Acacia* sp. narrow phyllode (B.R. Maslin 7831), (*A. ramulosa* var. *ramulosa*, *Eremophila caperata*) tall shrubland over *Olearia muelleri*, *Ptilotus obovatus* var. *obovatus* low open shrubland.

4.01: *Ptilotus obovatus* var. *obovatus* low shrubland over *Enneapogon caeruleus* scattered grasses and *Cheilanthes sieberi* subsp. *sieberi*, *C. brownii* very open hermland.

<b>Clearing Description</b>	Claw Project. Cliffs Asia Pacific Iron Ore Pty Ltd proposes to clear up to 110 hectares of native vegetation within a boundary of approximately 110 hectares, for the purpose of mineral production. The proposed clearing is for a mine pit and the construction of a waste rock landform. The project is located approximately 150 kilometres north of Southern Cross, within the Shire of Menzies.
<b>Vegetation Condition</b>	Pristine: No obvious signs of disturbance (Keighery, 1994).  To:  Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).
<b>Comment</b>	The vegetation condition was derived from a vegetation survey conducted by Biota (2011b).

### 3. Assessment of application against Clearing Principles

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

<b>Comments</b>	<p><b>Proposal is not likely to be at variance to this Principle</b></p> <p>The clearing permit application area is located within the Southern Cross subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Coolgardie Bioregion (GIS Database). At a broad scale, vegetation can be described as Eucalyptus woodlands rich in endemic eucalypts around chains of playa-lakes, <i>Borya constricta</i> with stands of <i>Acacia accuminata</i> and <i>Eucalyptus loxophleba</i> on mid-levels of granite basement outcrops with mallees and scrubheaths on the uplands (CALM, 2002).</p> <p>A Level 2 flora and vegetation survey was conducted over the application area and its surrounds by Biota Environmental Sciences (Biota) between August and December 2010 and April 2011. A total of 324 native vascular flora species were recorded from the study area, consisting of 52 families and 146 genera (Biota, 2011b).</p> <p>One vegetation unit (4.01) recorded within the application area is analogous to one component of the Priority Ecological Community (PEC) 'Windarling Ranges vegetation complex (banded ironstone formation)' (Biota, 2011). This PEC has previously been recorded at Windarling Range approximately 20 kilometres south of the application area. There is one stand within the application area, and two stands in the surrounding area, that Biota identified, however, these stands may simply represent groups of <i>Ptilotus</i> individuals rather than a distinct vegetation unit (Biota, 2011b).</p> <p>The spatially limited vegetation unit 1.06 is dominated by Priority Flora species <i>Banksia arborea</i> and considered to have moderate conservation significance at a local scale (Biota, 2011). Eight individuals were recorded within the mine area (Biota, 2011) and these will be impacted by the proposed clearing. Advice was requested from the Department of Biodiversity, Conservation and Attractions (DBCA; formerly Department of Parks and Wildlife) and advice was received on <i>B. arborea</i>. The species is a banded ironstone formation (BIF) specialist that is known from several ranges in the Mount Manning region. There may be impact on the local population as the nearest records to these plants are approximately 4 kilometres to the north. However, the impact is unlikely to be significant to the conservation of the species at a regional scale (DBCA, 2017).</p> <p>Eleven introduced flora species were recorded during the wider Biota flora and vegetation survey with one species, <i>Pentaschistis airoides</i> subsp. <i>airoides</i>, recorded within the application area (Biota, 2011b). Care must be taken to ensure that the proposed clearing activities do not spread or introduce weed species to non-infested areas. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.</p> <p>The fauna habitats present within the application area have been commonly recorded by other studies within 85 kilometres (Biota, 2011c).</p> <p>Based on the above, the proposed clearing is not likely to be at variance to this Principle.</p>
<b>Methodology</b>	<p>Biota (2011b) Biota (2011c) CALM (2002)</p> <p>GIS Database: - IBRA Australia - Pre-European Vegetation - Threatened and Priority Flora - Threatened Ecological Sites Buffered - Threatened Fauna</p>

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

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

A Level 2 fauna survey of the application area and its surrounds was undertaken by Biota in May 2010 and November to December 2010. The fauna survey included a literature review, trapping, avifauna census, bat sampling using Anabat echolocation call recorder and harp trap, and targeted Malleefowl searching. The survey recorded 99 fauna species consisting of 51 avifauna, seven native non-volant mammals, seven introduced non-volant mammals, six bats, two amphibians and 26 reptiles (Biota, 2011c).

Five main habitat units were identified within the larger study area (Biota, 2011c):

1. Plains supporting shrubland on loam;
2. Plains supporting shrubland on yellow sand;
3. Plains supporting woodland on loam;
4. Rocky slope of deposit with Mallee and or shrubs; and
5. Granite outcropping.

Habitat unit 5 was sampled at Pigeon Rocks, approximately 4 kilometres south of the application (Biota, 2011c). Geological mapping of the application area does not indicate granite at the surface (Biota, 2011c), therefore it is unlikely that habitat unit 5 occurs within the application area. Habitat units 1 to 4 have been commonly recorded by other studies within 85 kilometres (Biota, 2011c).

Three bird species of conservation significance were recorded during the survey:

- White-browed Babbler (western Wheatbelt subspecies) (*Pomatostomus superciliosus ashbyi*);
- Crested Bellbird (southern subspecies) (*Oreoica gutturalis gutturalis*); and
- Rainbow Bee-eater (*Merops ornatus*).

The records from the study indicate these species have moderate abundance in the study area. For each of the species the impact from the proposed mining is expected to be minor (Biota, 2011c). The distribution of the Rainbow Bee-eater is widespread as is its habitat. Rainbow Bee-Eaters are unlikely to nest in the study area due to the lack of water availability (Biota, 2011c). For both the Crested Bellbird (southern) and White-browed Babbler (Wheatbelt) their habitat is extensive in the area and the species are flexible in habitat usage (Biota, 2011c).

Three inactive Malleefowl (*Leipoa ocellata*) mounds were recorded during the survey, however, none of them were within the application area (Biota, 2011c).

An assessment and survey for short range endemic (SRE) invertebrate fauna of the application area and its surrounds was undertaken in May, June and December 2010 by Biota. The assessment found there were habitats that were suitable for SREs such as ironstone ridges and Mulga woodland, however none of the habitats were isolated only within the survey area. Therefore the distribution would probably extend beyond the proposed mining area (Biota, 2011a).

The survey recorded 26 taxa from groups known to support SREs. These were further classified into three broad groups. Group 1 had local context with recordings at other ranges and while the distribution was technically within the SRE definition the linear range of these species was up to 100 kilometres. Group 2 included three mygalomorph spiders along with taxa from the three genera *Aureocrypta?* sp., *Yilgarnia* sp. and *Missulena* sp. and were considered potential SREs. Group 3 were specimens that should be regarded as SREs because at a species level they were previously unknown to the WA Museum (Biota, 2011a). Although Groups 2 and 3 represent potential SREs, taking a habitat approach, the ranges extend beyond the application and study area (Biota, 2011a).

Two *Aganippe castellum* (P4) burrows were recorded during the Biota (2011a) SRE survey. Burrows of *A. castellum* have been recorded widely within the region and although recorded during the SRE survey, it is not a SRE (Biota, 2011a).

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

**Methodology** Biota (2011a)  
Biota (2011c)

**(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**

There are no known records of Threatened flora within the application area (GIS Database).

Flora and vegetation surveys of the application area and its surrounds by Biota (2011b) did not record any species of Threatened flora.

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

**Methodology** Biota (2011b)

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) located within or in close proximity to the application area (GIS Database).

A Level 2 flora and vegetation survey was conducted over the application area and its surrounds by Biota Environmental Sciences (Biota) between August and December 2010 and April 2011. No TECs were identified within the application area (Biota, 2011b).

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

**Methodology** Biota (2011b)

GIS Database:  
- Threatened and Priority Ecological Communities boundaries  
- Threatened and Priority Ecological Communities buffered

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

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

The application area falls within the Coolgardie Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 97.96% of the pre-European vegetation still exists in the IBRA Coolgardie Bioregion (Government of Western Australia, 2016). The application area is broadly mapped as Beard vegetation association 141 "Medium woodland; York gum, salmon gum and gimlet" (GIS Database). Approximately 82.91 and 97.22%, respectively, of the pre-European extent of each of these vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2016).

Therefore, the application area does not represent 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 DPaW managed lands
IBRA Bioregion – Coolgardie	12,912,204	12,648,491	~97.96	Least Concern	16.39
Beard vegetation associations – WA					
141	1,158,760	960,759	~82.91	Least Concern	35.38
Beard vegetation associations – Coolgardie Bioregion					
141	883,086	858,525	~97.22	Least Concern	47.39

\* Government of Western Australia (2016)

\*\* 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)  
Government of Western Australia (2016)

GIS Database:  
- IBRA Australia  
- Pre-European Vegetation

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

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

There are no watercourses or wetlands within the area proposed to clear (GIS Database). None of the vegetation associations recorded within the application area during the Level 2 flora and vegetation survey by Biota were associated with watercourses or wetlands (Biota, 2011b).

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

**Methodology Biota (2011b)**

GIS Database:

- Hydrography, Lakes
- Hydrography, Linear

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

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

The application area lies mostly within the Dryandra Land System with part of the application area within the Moriarty and Tealtoo Land Systems (GIS Database). These land systems have been mapped and described in technical bulletins produced by the former Department of Agriculture (now the Department of Primary Industries and Regional Development).

The Dryandra Land System is described as ridges of banded iron formation supporting dense mixed shrublands with emergent native pines, mallees and casuarinas. Stone mantles generally protect the soil surface from erosion (Payne et al., 1998).

The Moriarty Land System is described as low greenstone rises and stony plains supporting halophytic and acacia shrublands with patchy eucalypt overstoreys. Most of this land system is not generally susceptible to erosion, however, some land units are moderately susceptible to water erosion where there is no protective stone mantle (Payne et al., 1998).

The Tealtoo Land System consists of level to gently undulating loamy plains with fine ironstone lag gravel supporting dense acacia shrublands. The land system is generally not prone to soil erosion (Payne et al. 1998).

The amount of clearing is relatively large (110 hectares). Although the majority of land systems are stable, there is a risk of erosion if large areas are left cleared and bare for long periods of time. Potential impacts from erosion may be minimised by the implementation of a staged clearing condition.

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

**Methodology Payne et al. (1998)**

GIS Database:

- Landsystem Rangelands

**(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 may be at variance to this Principle**

The application area is located on the former Diemals Pastoral Lease, which is proposed for conservation (GIS Database). Advice was requested from the Department of Biodiversity, Conservation and Attractions (DBCA; formerly Department of Parks and Wildlife). DBCA recommended Cliffs undertake ongoing consultation with DBCA about the operations and mine closure to ensure the outcomes are consistent with the intended land use (DBCA, 2017).

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

**Methodology DBCA (2017)**

GIS Database:

- DPaW 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**

There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no watercourses or wetlands within the area proposed to clear (GIS Database). The proposed clearing is unlikely to result in significant changes to surface water flows.

The proposed clearing is unlikely to cause deterioration in the quality of underground water.

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

**Methodology** GIS Database:  
- 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 climate of the region is semi-arid, with a low average rainfall of approximately 300 millimetres per year (BoM, 2017). There are no water courses or waterbodies within the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.

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

**Methodology** BOM (2017)  
  
GIS Database:  
- Hydrographic Catchments - Catchments  
- Hydrography, linear

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

**Comments**

The clearing permit application was advertised on 28 August 2017 by the Department of Mines, Industry Regulation and Safety (DMIRS) inviting submissions from the public. No submissions were received in relation to this application.

There are no native title claim/s over the area under application (DPLH, 2017). 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 is one registered Aboriginal Site of Significance (Site ID 27027) within the application area (DPLH, 2017). 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 Water and Environmental Regulation and the Department of Biodiversity Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

**Methodology** DPLH (2017)

**4. References**

- Biota (2011a) Deception Deposit Short Range Endemic Invertebrate Fauna Survey. Report prepared for Cliffs Asia Pacific Iron Ore Pty Ltd, by Biota Environmental Sciences, March 2011.
- Biota (2011b) Deception Deposit Vegetation and Flora Survey. Report prepared for Cliffs Asia Pacific Iron Ore Pty Ltd, by Biota Environmental Sciences, June 2011.
- Biota (2011c) Deception Deposit Vertebrate Fauna Survey. Report prepared for Cliffs Asia Pacific Iron Ore Pty Ltd, by Biota Environmental Sciences, March 2011.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.

- DBCA (2017) Advice received in relation to Clearing Permit Application CPS 7733/1. Environmental Management Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, September 2017.
- DPLH (2017) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 3 October 2017).
- 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 (2016) 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2016. WA Department of Parks and Wildlife, 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.
- Payne, A.L., Van Vreeswyk, A.M.E., Pringle, H.J.R., Leighton, K.A. and Hennig, P. (1998) An Inventory and Condition Survey of the Sandstone-Yalgoo-Paynes Find area, Western Australia. Department of Agriculture, Western Australia.

## 5. Glossary

### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia (now DPLH)
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia (now DPIRD)
<b>DBCA</b>	Department of Biodiversity Conservation and Attractions, Western Australia
<b>DEC</b>	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
<b>DEE</b>	Department of the Environment and Energy, Australian Government
<b>DER</b>	Department of Environment Regulation, Western Australia (now DWER)
<b>DMIRS</b>	Department of Mines, Industry Regulation and Safety, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia (now DMIRS)
<b>DPIRD</b>	Department of Primary Industries and Regional Development, Western Australia
<b>DPLH</b>	Department of Planning, Lands and Heritage, Western Australia
<b>DRF</b>	Declared Rare Flora
<b>DoE</b>	Department of the Environment, Australian Government (now DEE)
<b>DoW</b>	Department of Water, Western Australia (now DWER)
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia (now DBCA)
<b>DSEWPaC</b>	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
<b>DWER</b>	Department of Water and Environmental Regulation, Western Australia
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>TEC</b>	Threatened Ecological Community

### Definitions:

{DPaW (2017) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

**T**                    **Threatened species:**  
Published as Specially Protected under the *Wildlife Conservation Act 1950*, listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

**Threatened fauna** is that subset of ‘Specially Protected Fauna’ declared to be ‘likely to become extinct’ pursuant to section 14(4) of the Wildlife Conservation Act.

**Threatened flora** is flora that has been declared to be ‘likely to become extinct or is rare, or otherwise in need of special protection’, pursuant to section 23F(2) of the Wildlife Conservation Act.

The assessment of the conservation status of these species is based on their national extent and

ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

- CR Critically endangered species**  
Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
- EN Endangered species**  
Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
- VU Vulnerable species**  
Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
- EX Presumed extinct species**  
Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.
- IA Migratory birds protected under an international agreement**  
Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- CD Conservation dependent fauna**  
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- OS Other specially protected fauna**  
Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P Priority species**  
Species which are poorly known; or  
Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.
- P1 Priority One - Poorly-known species:**  
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
- P2 Priority Two - Poorly-known species:**  
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
- P3 Priority Three - Poorly-known species:**  
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if



they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

**P4**

**Priority Four - Rare, Near Threatened and other species in need of monitoring:**

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.

(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.