

# **Clearing Permit Decision Report**

1. Application detail	S				
1.1. Permit applicat Permit application No.: Permit type:	ion details 8436/1 Purpose Permit				
1.2. Proponent deta Proponent's name:	Kimberley Quarry Pty Ltd				
1.3. Property details Property: Local Government Area: Colloquial name:	Mining Lease 47/1496 City of Karratha Maitland Quarry Project				
1.4. Application Clearing Area (ha) 46.89	No. TreesMethod of ClearingFor the purpose of:Mechanical RemovalQuarry and associated activities				
1.5. Decision on ap Decision on Permit Applica Decision Date:	plication ation: Grant 16 May 2019				
2. Site Information					
2.1. Existing enviro	nment and information				
2.1.1. Description of th	e native vegetation under application				
Vegetation Description	he vegetation of the application area is broadly mapped as the following Beard vegetation association: 57: Hummock grasslands, grass steppe; hard spinifex, <i>Triodia wiseana</i> (GIS Database).				
	and vegetation survey was conducted over the application area by MMWC Environmental during June BES, 2019). The following vegetation associations were recorded within the application area (BES, 2019; C, 2015):				
	Scattered tall shrubs of Clerodendrum tomentosum var. lanceolatum over scattered hummock grasses of Triodia wiseana;				
	High open shrubland of <i>Terminalia canescens</i> and <i>Ehretia saligna</i> over scattered shrubs of <i>Acacia coriacea</i> subsp. <i>coriacea</i> over scattered low shrubs of <i>Ptilotus obovatus</i> and <i>Abutilon fraseri</i> over scattered tussock grasses of <i>Eriachne mucronata</i> ;				
	Low open woodland of Terminalia canescens over hummock grassland of Triodia wiseana; and				
	Low open woodland of <i>Terminalia canescens</i> and <i>Corymbia hamersleyana</i> over high open shrubland of <i>Acacia coriacea</i> subsp. <i>coriacea</i> over scattered low shrubs of <i>Acacia bivenosa</i> over open hummock grassland of <i>Triodia epactia</i> and <i>Triodia wiseana</i> over scattered tussock grasses of * <i>Cenchrus ciliaris</i> .				
	* introduced species				
Clearing Description	Maitland Quarry. Kimberley Quarry Pty Ltd proposes to clear up to 46.89 hectares of native vegetation within a boundary of approximately 70 hectares, for the purpose of a quarry and associated activities. The project is located approximately 15 kilometres to the south west of Karratha, within the City of Karratha.				
Vegetation Condition	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).				
Comment	It The vegetation condition was initially described in the vegetation survey conducted by MMWC Environmental Pty Ltd (MMWC, 2015). The vegetation condition was rated using the Trudgen scale (MMWC, 2015; Trudgen, 1991), and has been converted to the Keighery scale (Keighery, 1994).				
	he proposed clearing is for the construction of a quarry and associated activities including: two open pits, a creening and crushing plant, offices, accommodation, and a haul road (BES, 2019).				

# 8. 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 clearing permit application area is located within the Roebourne subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Pilbara Bioregion (GIS Database). The Roebourne subregion is characterised by coastal and subcoastal plains, supporting grass savannah of mixed bunch and hummock grasses and dwarf shrub steppe. Uplands are dominated by *Triodia* hummock grasslands. Ephemeral drainage lines support *Eucalyptus victrix* or *Corymbia hamersleyana* woodlands (CALM, 2002).

The biological survey (flora, vegetation and fauna) of the application area was undertaken in June 2015 by MMWC Environmental (BES, 2019; MMWC, 2015). The survey recorded a total of 103 flora taxa, from 73 genera and 34 families (BES, 2019; MMWC, 2015). The survey did not record any Threatened flora or Priority flora (MMWC, 2015).

A desktop study of the application area indicates that there are records of Priority Ecological Communities (PECs): Roebourne Plains coastal grasslands with gilgai micro relief on deep cracking clays (Roebourne Plains gilgai grasslands) (Priority 1) and Horseflat land systems of the Roebourne Plains (Priority 3) within close proximity to the application area (GIS Database). The buffer boundaries for the Roebourne Plains gilgai grasslands is approximately three kilometres south east, and the Horseflat land system is approximately five kilometres to the north west of the application area, at the nearest point. None of the vegetation associations recorded in the survey were analogous with the known PECs (MMWC, 2015). Furthermore, the proposed clearing is not likely to impact the PECs.

Seven introduced flora species were recorded within the application area, however, none of these species were listed as Declared Plants under the *Biosecurity and Agriculture Management Act 2007* (DPIRD, 2019; MMWC, 2015). Clearing activities may spread or introduce weeds, which have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The fauna habitat assessment recorded five habitat types, all habitats are considered to be common in the region (MMWC, 2015). No fauna of conservation significance were recorded in the application area (MMWC, 2015).

The fauna survey recorded 15 vertebrate species, including one reptile, ten birds and four mammals. No conservation significant fauna were recorded during the fauna survey (BES, 2019).

The vegetation associations, fauna habitats and landform types present within the application area, are well represented in surrounding areas (BES, 2019; MMWC, 2015; GIS Database). The application area is unlikely to represent an area of higher biodiversity than surrounding areas, in either a local or regional context.

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

Methodology BES (2019)

CALM (2002) DPIRD (2019) MMWC (2015)

GIS Database:

- IBRA Australia
- Pre-European Vegetation
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers
- Threatened Fauna

# (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

The following five fauna habitats have been recorded within the application area (MMWC, 2015):

- 1. Rock Pile;
- 2. Rock Ridge;
- 3. Low Hill;
- 4. Stony Plain; and
- 5. Minor Drainage Line.

Each of these habitats are common in the region (MMCW, 2015).

Records indicate that several conservation significant fauna species were previously recorded in the vicinity of the application area (MMWC, 2015). A desktop assessment found that it was likely that three conservation species potentially could occur in the application area:

- 1. Dasyurus hallucatus Northern Quoll (Endangered)
- 2. Liasis olivaceus barroni Pilbara Olive Python (Vulnerable)
- 3. *Hirundo rustica* Barn Swallow (Migratory)

A field survey assessed fauna habitat, recorded opportunistic observations of fauna, and set up motion sensitive cameras to record fauna.

The survey found:

- that minor drainage lines may provide suitable habitat for the Pilbara Olive Python when the surface water is present (MMWC, 2015);
- the application area may provide foraging area for the Barn Swallow, however it is unlikely that there is suitable habitats for breeding and shelter (MMWC, 2015); and
- the Rock Piles and Rock Ridges habitat types may provide suitable habitat for the Northern Quoll. No Quolls were recorded by motion cameras, however, the motion cameras did record feral cats (MMWC, 2015).

Drainage lines, rock ridges and rock piles within the application area may provide habitat for the Pilbara Olive Python and the Northern Quoll. The Pilbara Olive Python is known to utilise drainage lines and rocky piles as habitats (MMWC, 2015). The Northern Quoll shelters in rock crevices and uses rock piles for denning habitat (Doughty, 2011; MMWC, 2015; Oakwood, et al., 2016). However, motion sensitive cameras set up for a targeted Northern Quoll assessment failed to find any Quolls in the application area.

Furthermore, Quolls are generalists and can occur in a wide range of habitats (Doughty, 2011; Oakwood, et al., 2016).

The vegetation proposed to be cleared is unlikely to represent significant fauna habitat.

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

Methodology Doughty (2011)

Oakwood et al. (2016) MMWC (2015)

GIS Database:

- Imagery
- Pre-European Vegetation
- Threatened Fauna
- Hydrography, linear

# (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). A Flora survey of the application area did not record any species of Threatened flora (MMWC, 2015).

The vegetation associations within the application area are common and widespread within the region (MMWC, 2015; GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened (rare) flora.

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

Methodology MMWC (2015)

GIS Database:

- Pre-European Vegetation
- 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 flora and vegetation survey of the application area did not identify any TECs (MMWC, 2015).

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

## Methodology MMWC (2015)

- GIS Database:
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

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

## Comments Proposal is not at variance to this Principle

The application area falls within the Pilbara Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Pilbara Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation association 157: Hummock grasslands, grass steppe; hard spinifex, *Triodia wiseana* (GIS Database). Approximately 99% of the pre-European extent of each of this vegetation association remains uncleared at both the state and bioregional level (Government of Western Australia, 2019).

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 DBCA managed lands	
IBRA Bioregion – Pilbara	17,808,657	17,731,764	~99	Least Concern	10	
Beard vegetation associations – WA						
157	502,728	499,311	~99	Least Concern	18	
Beard vegetation associations – Pilbara Bioregion						
157	199,832	198,409	~99	Least Concern	6	

\* Government of Western Australia (2019)

\*\* 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 (2019)

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 at variance to this Principle

There are no permanent watercourses or wetlands within the area proposed to clear (BES, 2019; GIS Database). Several minor seasonal creek lines pass through the application area (GIS Database). Creek lines in the region are dry for the majority of the year (BES, 2015).

One of the vegetation associations mapped during the flora and vegetation survey was recorded growing in association with non-perennial water courses or drainage lines, and was described as creekline and Minor Drainage Line habitat (MMWC, 2015; GIS Database).

Based on the above, the proposed clearing is at variance to this Principle. Potential impacts to vegetation growing in association with a watercourse may be minimised by the implementation of a watercourse management condition. Methodology BES (2019) MMWC (2015) 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 is not likely to be at variance to this Principle The application area lies within the Boolgeeda and Rocklea 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 Boolgeeda land system is described as stony slopes and plains below hill systems supporting hard and soft spinifex grasslands and mulga shrublands. This land system is not generally susceptible to erosion (Van Vreeswyk et al., 2004; GIS Database). The Rocklea land system consists of hills, plateaux, lower slopes and minor stony plains supporting hard spinifex (and occasionally soft spinifex) grasslands. This land system has a very low erosion risk (Vreeswyk et al., 2004; GIS Database). The proposed clearing of up to 46.89 hectares of native vegetation within a boundary of approximately 70 hectares, for the purpose of constructing a quarry and associated activities is unlikely to cause appreciable land degradation. 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: - 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 is not likely to be at variance to this Principle There are no conservation areas in the vicinity of the application area. The nearest DBCA (formerly DPaW) managed land is the former Karratha Station Pastoral Lease, approximately nine kilometres west of the application area (GIS Database). The proposed clearing is unlikely to impact on the environmental values of any conservation area. Based on the above, the proposed clearing is not likely to be at variance to this Principle. GIS Database: Methodology - DPaW Tenure Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration (i) in the quality of surface or underground water. Proposal is not likely to be at variance to this Principle Comments There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are Saline Coastal Flats within approximately five kilometres to the north of the application area, however, the proposed clearing is unlikely to impact the water body. Several minor seasonal watercourses occur within the area proposed to clear (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall. 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

- Hydrography, Linear

GIS Database:

- 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, at the nearest weather station at Karratha Aero of approximately 296 millimetres per year (BoM, 2019). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (BES, 2019).

There are no permanent water courses or waterbodies within the application area (GIS Database). Several seasonal drainage lines occur within the application area 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 BES (2019) BoM (2019)

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 8 April 2019 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 is one native title claim (WC1999/014) over the area under application (DPLH, 2019). This claim has been determined by the Federal Court 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 is one registered Aboriginal Site of Significance within the application area (DPLH, 2019). 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 (2019)

# 4. References

BES (2019) Purpose Permit Application Assessment of Clearing Principles. Report prepared for Kimberley Quarry Pty Ltd, by Blueprint Environmental Strategies Pty Ltd, March 2019.

BoM (2019) Bureau of Meteorology Website – Climate Data Online, Karratha Aero WA (004083). Bureau of Meteorology. http://www.bom.gov.au/climate/data/ (Accessed 3 May 2019).

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

Doughty, P., Rolfe, J.K., Burbidge, A.H., Pearson, D.J. and Kendrick, P.G. (2011). Herpetological assemblages of the Pilbara biogeographic region, Western Australia: ecological associations, biogeographic patterns and conservation.

DPIRD (2019) Declared Plants. Department of Primary Industries and Regional Development.

https://www.agric.wa.gov.au/pests-weeds-diseases/weeds/declared-plants (Accessed 2 May 2019). DPLH (2019) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage.

http://maps.daa.wa.gov.au/AHIS/ (Accessed 3 May 2019).

Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth. https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics

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

MMWC (2015) Flora, Vegetation and Fauna Assessment of Mt Regal, M47/1496. Report prepared for Kimberley Quarry Pty Ltd, by MMWC Environmental Pty Ltd, October 2015.

Oakwood, M., Woinarski, J., and Burnett, S. (2016). *Dasyurus hallucatus*. The IUCN Red List of Threatened Species 2016. http://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T6295A21947321.en. (Accessed 3 May 2019)

Trudgen, M.E. (1991) Vegetation Condition Scale, National Trust (WA) 1993 Urban Bushland Policy. Wildflower Society of Western Australia Inc. and the Tree Society Inc. Perth, Western Australia.

Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) An inventory and condition survey of the Pilbara Region, Western Australia. Technical Bulletin No. 92. Department of Agriculture, South Perth, Western Australia.

## 5. Glossary

# Acronyms:

BoM DAA DAFWA DBCA DEC DEE DER DMIRS DMP	Bureau of Meteorology, Australian Government Department of Aboriginal Affairs, Western Australia (now DPLH) Department of Agriculture and Food, Western Australia (now DPIRD) Department of Biodiversity, Conservation and Attractions, Western Australia Department of Environment and Conservation, Western Australia (now DBCA and DWER) Department of the Environment and Energy, Australian Government Department of Environment Regulation, Western Australia (now DWER) Department of Mines, Industry Regulation and Safety, Western Australia Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
DWER	Department of Water and Environmental Regulation, Western Australia
EPA	Environmental Protection Authority, Western Australia
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
PEC	Priority Ecological Community, Western Australia
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
TEC	Threatened Ecological Community

## **Definitions:**

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-

# T <u>Threatened species:</u>

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

**Threatened fauna** is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

**Threatened flora** is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife* Conservation (Rare Flora) Notice 2018 for Threatened Flora.

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 in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

#### EN Endangered species

Threatened species considered to be "facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation* (Specially Protected Fauna) Notice 2018 for endangered fauna or the *Wildlife Conservation* (Rare Flora) Notice 2018 for endangered flora.

### VU Vulnerable species

Threatened species considered to be "facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation* (Specially Protected Fauna) Notice 2018 for vulnerable fauna or the *Wildlife Conservation* (Rare Flora) Notice 2018 for vulnerable flora.

### **Extinct Species:**

## EX Extinct species

Species where "there is no reasonable doubt that the last member of the species has died", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

## EW Extinct in the wild species

Species that "is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

## Specially protected species:

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

## MI Migratory species

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes 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 fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018.* 

### Species of special conservation interest (conservation dependent fauna)

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation* (Specially Protected Fauna) Notice 2018.

### OS Other specially protected species

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation* (Specially Protected Fauna) Notice 2018.

### P Priority species:

CD

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species 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.