

## **Clearing Permit Decision Report**

## 1. Application details

1.1. Permit application details

Permit application No.: 8616/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Billabong Gold Pty Ltd

1.3. Property details

Property: Mining Lease 52/148

Mining Lease 52/170

Local Government Area: Shire of Meekatharra

Colloquial name: Plutonic Gold

1.4. Application

Clearing Area (ha) No. Trees Method of Clearing For the purpose of:

137 Mechanical Removal Tailings Storage Facility and associated activities

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 12 September 2019

## 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: 29: Sparse low woodland; mulga, discontinuous in scattered groups (GIS Database).

A flora and vegetation survey was conducted over the application area by Eco Logical Australia Pty Ltd (Eco Logical) during 1-4 April, 2019. The following vegetation associations were recorded within the application area (Eco Logical, 2019):

**ApEfTt:** Acacia pteraneura, Psydrax latifolia and Acacia fuscaneura low woodland over Acacia tetragonophylla, Eremophila forrestii subsp. forrestii and Eremophila galeata mid sparse shrubland over Solanum lasiophyllum and Sida sp. low isolated shrubs and Themeda triandra low sparse tussock grassland on orange clay-loam minor drainage:

**AfGbPo:** Acacia fuscaneura, Acacia pteraneura and Grevillea berryana low open woodland over Eremophila forrestii subsp. forrestii, Eremophila latrobei subsp. latrobei and Eremophila clarkei mid isolated shrubs over Ptilotus obovatus, Solanum lasiophyllum and Sclerolaena?eriacantha low isolated shrubs on orange clay-loam wash plain; and

**AcEIEe:** Acacia ?cuthbertsonii subsp. cuthbertsonii, Acacia pteraneura and Psydrax latifolia tall sparse shrubland over Eremophila latrobei subsp. latrobei, Eremophila clarkei and Senna ?artemisioides subsp. x sturtii mid isolated shrubs over Sida picklesiana (P3) and Ptilotus schwartzii low isolated shrubs and Eragrostis eriopoda low isolated tussock grasses on orange clay-loam wash plain. This vegetation association covered the majority of the application area.

### **Clearing Description**

Plutonic Gold.

Billabong Gold Pty Ltd proposes to clear up to 137 hectares of native vegetation within a boundary of approximately 137 hectares, for the purpose of a Tailings Storage Facility (TSF) and associated activities. The project is located approximately 170 kilometres north-east of Meekatharra, within the Shire of Meekatharra.

### **Vegetation Condition**

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

To:

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

#### Comment

The vegetation condition was derived from a vegetation survey conducted by Eco Logical (2019). The majority of vegetation was considered to be in good condition, with some areas degraded due to grazing by cattle and camels (Eco Logical, 2019).

The proposed clearing is for an additional two TSF cells and topsoil stockpiles. These are to be located directly adjacent to the existing TSF cells and confined to an area where previous land degradation exists.

## 3. Assessment of application against Clearing Principles

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

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

The clearing permit application area is located within the Augustus subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Gascoyne Bioregion (GIS Database). The Augustus subregion is characterised by rugged low Proterozoic sedimentary and granite ranges divided by broad flat valleys (CALM, 2002). Mulga woodlands with *Triodia* occur on stony loams on rises, and shallow earthy loams over hardpan on the plains support mulga (CALM, 2002).

A vegetation assessment of the application area was conducted by Eco Logical (2019) during 1-4 April (Eco Logical, 2019). The vegetation of the application area was dominated by a mixture of *Acacia*, *Psydrax* and *Grevillea* low woodland and shrublands on plains and minor drainage lines (Eco Logical, 2019). None of the vegetation associations described within the application area were considered to be locally restricted (Eco Logical, 2019). No Threatened or Priority Ecological Communities were identified as potentially occurring in the application area and the field assessment of the application did not record any (Eco Logical, 2019).

A total of 43 flora taxa from 26 genera and 17 families were recorded within the application area during the field assessment by Eco Logical (2019). However, due to a lack of rain for the three months prior to the field survey no annual species were recorded (Eco Logical, 2019), and as a result it is likely that diversity in the area is underrepresented (DBCA, 2019). The desktop assessment of the application area identified 17 conservation significant flora species with the potential to occur due to known distributions. However, 16 of these were considered unlikely to occur within the application area based on habitat preferences (Eco Logical, 2019). No Threatened flora were determined to be potentially occurring within the application area and none were recorded during the field assessment (Eco Logical, 2019). One Priority flora species, *Sida picklesiana* (P3), was recorded within all vegetation associations described within the application area, with approximately 250 plants being recorded (Eco Logical, 2019). The species is known from 32 Western Australian Herbarium records, representing 19 populations that extend over a range of approximately 250 kilometres across two IBRA Bioregions, indicating that it is not locally restricted (DBCA, 2019; Western Australian Herbarium, 1998-). It is therefore unlikely that the proposed clearing will have a significant impact on the conservation of the species.

One weed species, *Bidens bipinnata*, was recorded within the application area (Eco Logical, 2019). Weeds have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity as a result of the introduction of weeds may be minimised by the implementation of a weed management condition.

A total of 22 fauna species were recorded within the application area, including 16 birds, four mammals and two reptiles (Eco Logical, 2019). The desktop assessment of the application area identified 14 conservation significant fauna species with the potential to occur, with all determined to be unlikely to occur based on habitat requirements (Eco Logical, 2019). No Threatened or Priority fauna species were recorded within the application area (Eco Logical, 2019).

The vegetation associations and landform types present within the application area are well represented in surrounding areas (Eco Logical, 2019; 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

CALM (2002)

DBCA (2019)

Eco Logical (2019)

Western Australian Herbarium (1998-)

### 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 two fauna habitats have been recorded within the application area (Eco Logical, 2019): Open mulga woodland on sheet plain wash; and Mulga woodland on minor drainage.

The majority of the application area was comprised of the open mulga woodland on sheet plain wash habitat type (Eco Logical, 2019). However the mulga woodland on minor drainage habitat was observed to support the highest diversity of fauna species, with bird species predominately observed utilising this habitat as it provided a higher level of vegetation cover (Eco Logical, 2019).

The habitat within the application area was not considered to be suitable for any of the 14 conservation significant fauna species identified in the desktop assessment as having the potential to occur within the area (Eco Logical, 2019). This included eight migratory bird species requiring wetlands or coastal habitats and four species; princess parrot, *Polytelis alexandrae* (P4 at state level and VU at federal level); malleefowl, *Leipoa ocellata* (VU at both state and federal level); brush-tailed mulgara, *Dasycercus blythi* (P4); and crest-tailed mulgara, *Dasycercus cristicauda* (P4), identified as preferring sand dune/sand flat habitats (Eco Logical, 2019). Two species; the peregrine falcon, *Falco peregrinus* (OS) and the grey falcon, *Falco hypoleucos* (VU), commonly utilise a wide variety of habitats, however were considered unlikely to occur within the application area due to a lack of nesting habitat, water and prey (Eco Logical, 2019).

All fauna habitats within the application area are well represented in surrounding areas and are unlikely to be considered significant habitat in either a local or regional context (Eco Logical, 2019; GIS Database).

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

### Methodology Eco Logical (2019)

GIS Database:

- Imagery
- Pre-European Vegetation
- Threatened Fauna

## (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 surveys of the application area did not record any species of Threatened flora (Eco Logical, 2019).

The vegetation associations within the application area are common and widespread within the region (Eco Logical, 2019; 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 Eco Logical (2019)

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 (Eco Logical, 2019).

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

#### Methodology Eco Logical (2019)

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 Gascoyne Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Gascoyne Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation association 29: Sparse low woodland; mulga, discontinuous in scattered groups (GIS Database). Approximately 99% of the pre-European extent 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  – Gascoyne	18,075,219	18,067,441	~99	Least Concern	~10
Beard vegetation associations  – WA					
29	7,903,991	7,898,973	~99	Least Concern	~6
Beard vegetation associations  – Gascoyne Bioregion					
29	3,802,459	3,799,635	~99	Least Concern	~7

<sup>\*</sup> Government of Western Australia (2019)

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 (Eco Logical, 2019; GIS Database). One seasonal drainage line passes through the application area, however this drainage line is already interrupted by the existing TSF (GIS Database). One vegetation association recorded within the application area, ApEfTt: *Acacia pteraneura*, *Psydrax latifolia* and *Acacia fuscaneura* low woodland on orange clay-loam minor drainage, is noted as growing in association with the minor drainage line that dissects the application area (Eco Logical, 2019).

Based on the above, the proposed clearing is at variance to this Principle. However, the proposed clearing is unlikely to have a significant impact, given the minor drainage line is already disrupted by current mining activities.

### Methodology Eco Logical (2019)

GIS Database:

- Hydrography, Lakes
- Hydrography, linear
- Imagery

# (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 within the Horseshoe land system (GIS Database). This land system has been mapped and described in technical bulletins produced by the former Department of Agriculture (now the Department of Primary Industries and Regional Development).

<sup>\*\*</sup> Department of Natural Resources and Environment (2002)

The Horseshoe land system is described as gently undulating stony plains and low rounded hills based on Proterozoic metamorphic rocks, with somewhat saline drainage foci and alluvial tracts, supporting scattered mulga and shrublands with halophytes (GIS Database). This land system is somewhat susceptible to wind and water erosion where vegetation is degraded (Wilcox and McKinnon, 1974). Potential land degradation impacts as a result of the proposed clearing 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 Wilcox and McKinnon (1974)

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 Doolgunna Pastoral Lease which is located approximately 19 kilometres south 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.

Methodology 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 permanent watercourses or wetlands within the area proposed to clear (GIS Database). Drainage 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

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 desert, with bimodal rainfall (CALM, 2002). The nearest weather station is Three Rivers, approximately 37.5 kilometres north-west of the application area, with an average rainfall of approximately 234.0 millimetres per year (BoM, 2019).

There are no permanent 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 (2019) CALM (2002)

GIS Database:

- Hydrography, linear

### Planning Instrument, Native Title, previous EPA decision or other matter.

### Comments

The clearing permit application was advertised on 29 July 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 (WC2006/002) 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 are no registered Aboriginal Sites 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

- BoM (2019) Bureau of Meteorology Website Climate Data Online, Three Rivers. Bureau of Meteorology. <a href="http://www.bom.gov.au/climate/data/">http://www.bom.gov.au/climate/data/</a> (Accessed 19 August 2019).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DBCA (2019) Advice received in relation to Clearing Permit Application CPS 8616/1. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, August 2019.
- DPLH (2019) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. <a href="http://maps.daa.wa.gov.au/AHIS/">http://maps.daa.wa.gov.au/AHIS/</a> (Accessed 19 August 2019).
- 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.
- Eco Logical Australia (2019) Flora and Fauna Survey of the Proposed Tailing Storage Facility (TSF4). Report prepared by Eco Logical Australia Pty Ltd, for Billabong Gold Pty Ltd, July 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.
- Western Australian Herbarium (1998-) FloraBase the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <a href="https://florabase.dpaw.wa.gov.au/">https://florabase.dpaw.wa.gov.au/</a> (Accessed 6 September 2019).
- Wilcox, D G, and McKinnon, E A. (1974) A report on the condition of the Gascoyne catchment. Department of Agriculture and Food, Western Australia, Perth. Report 2.

## 5. Glossary

### **Acronyms:**

**BoM** Bureau of Meteorology, Australian Government

DAA Department of Aboriginal Affairs, Western Australia (now DPLH)
 DAFWA Department of Agriculture and Food, Western Australia (now DPIRD)
 DBCA Department of Biodiversity, Conservation and Attractions, Western Australia

DEC Department of Environment and Conservation, Western Australia (now DBCA and DWER)

DEE Department of the Environment and Energy, Australian Government
DER Department of Environment Regulation, Western Australia (now DWER)
DMIRS Department of Mines, Industry Regulation and Safety, Western Australia
DMP 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 Threatened species:

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.

### CD 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:

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.