



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 9228/1

Permit type: Purpose

### 1.2. Proponent details

Proponent's name: Big Bell Gold Operations Pty Ltd

### 1.3. Property details

Property: Mining Lease 20/98  
Mining Lease 20/197

Local Government Area: Shire of Cue

Colloquial name: Accelerator and Indicator Mining Areas

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 30 April 2021

## 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:

18: Low woodland; mulga (*Acacia aneura*) (GIS Database).

A flora and vegetation survey was conducted over the application area by Western Ecological during November, 2020. The following vegetation associations were recorded within the application area (Western Ecological (2021):

**VT1:** *Acacia aptaneura*, *A. pruinocarpa* isolated low trees over *Eremophila galeata*, *E. forrestii* subsp. *forrestii*, *Acacia craspedocarpa*, *Ptilotus obovatus* low isolated to sparse shrubland;

**VT2:** *Acacia pruinocarpa* emergent trees over *Acacia fuscaneura*, *A. caesaneura* open woodland/ tall open shrubland over *Eremophila forrestii* subsp. *forrestii*, *Acacia tetragonophylla*, *A. ramulosa* var. *ramulosa*, *A. craspedocarpa*, *A. fuscaneura* open shrubland over *Ptilotus obovatus* low sparse shrubland;

**VT3:** *Acacia aptaneura* or *A. pteraneura* very isolated tall shrubs over *Ptilotus rotundifolius*, *Eremophila galeata*, *Ptilotus rotundifolius*, *Eremophila macmillaniana* sparse to isolated shrubs over *Ptilotus obovatus*, *Maireana triptera* low sparse shrubland;

**VT4:** *Acacia aptaneura* or *A. pteraneura* low open woodland over *Eremophila macmillaniana*, *E. galeata*, *Senna* sp. *Meekatharra* isolated shrubs over *Maireana triptera*, *Ptilotus obovatus* low isolated shrubs over grass tussocks (grazed/ recent resprout) low isolated shrubs over grass tussocks (grazed/ recent resprout) low isolated;

**VT5:** *Acacia aptaneura*, *Acacia synchronicia* tall shrubs over *Eremophila macmillaniana*, *A. tetragonophylla*, *E. glutinosa*, *Ptilotus rotundifolius*, *Acacia speckii*, *A. ramulosa* var. *ramulosa* open shrubland over *Dodonaea amplisemina*, *Maireana triptera* low open shrubland;

**VT6:** *Acacia aptaneura* or *A. fuscaneura* low trees/ tall shrubs over *Eremophila macmillaniana*, *Acacia tetragonophylla* open shrubland over *Ptilotus rotundifolius* or *P. obovatus* low open to low sparse shrubland;

**VT7:** *Acacia caesaneura*, *Acacia fuscaneura* open woodland to woodland over *Acacia aptaneura* tall sparse shrubland/ low open woodland over *Eremophila galeata*, *E. macmillaniana*, *Acacia tetragonophylla*, *A. aptaneura*, *Senna artemisioides* subsp. *xartemisioides* open shrubland over *Cymbopogon ambiguus* and *Ptilotus obovatus* sparse grass tussocks and low shrubs;

**VT8:** *Acacia craspedocarpa*, *A. aptaneura*, *A. synchronicia* tall open shrubland over *Eremophila galeata*, *Ptilotus obovatus* low open shrubland *Acacia synchronicia*, *Hakea preissii* tall open shrubland over *Eremophila youngii* subsp. *youngii*, *Senna artemisioides* subsp. *oligophylla* open shrubland over *Ptilotus obovatus*, *Senna* sp. *Billabong*, *Atriplex vesicaria* low open shrubland; and

**VT9:** *Pittosporum angustifolium*, *Hakea preissii*, *Eremophila longifolia*, *Acacia synchronicia* low woodland over *Ptilotus divaricatus*, *P. obovatus*, *Enchylaena tomentosa*, *Rhagodia drummondii*, shrubland over *Dissocarpus paradoxus*, *Sclerolaena cuneata*, *Atriplex codonocarpa*, *Maireana pyramidata*, resprouting grasses low open shrubland.

<b>Clearing Description</b>	Accelerator and Indicator Mining Areas Big Bell Gold Operations Pty Ltd (Big Bell Gold) proposes to clear up to 363 hectares of native vegetation within a boundary of approximately 363.5 hectares, for the purpose of mineral production and associated activities. The project is located approximately 30 kilometres northwest of Cue, within the Shire of Cue.
<b>Vegetation Condition</b>	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).  To:  Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).
<b>Comment</b>	The vegetation condition was derived from a vegetation survey conducted by Western Ecological (2021).  The applicant proposes to establish a mining operation (Accelerator and Indicator Project) as part of its Cue Gold Operations Project area on tenements M20/98 and M20/197 (Westgold, 2021). The project will involve establishing an open pit mine, a waste rock dump (WRD), run-of-mine pad (ROM), evaporation pond and haul road, along with associated infrastructure (Westgold, 2021).

### 3. Assessment of application against Clearing Principles

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

<b>Comments</b>	<p><b>Proposal is not likely to be at variance to this Principle</b></p> <p>The application area occurs within the Eastern Murchison (MUR1) subregion of the Murchison Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). This subregion is characterised by its internal drainage, and extensive areas of elevated red desert sandplains with minimal dune development (CALM, 2002). Vegetation is dominated by Mulga Woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and <i>Tecticornia</i> shrublands (CALM, 2002).</p> <p>A flora, vegetation and fauna survey of the application area was undertaken in November 2020 (Western Ecological, 2021). Nine vegetation types were described for the application area from the field results based on floristics and structure (Western Ecological, 2021). Vegetation condition was described as degraded to very good, with extensive pastoral and previous mining exploration impacts evident (Western Ecological, 2021; Westgold (2021).</p> <p>No Threatened or Priority Ecological Communities have been recorded within or near the application area, and none were described as part of the recent field survey (Western Ecological, 2021; GIS Database).</p> <p>A total of 69 flora species from eighteen families and thirty-two genera were recorded as part of the survey of the application area (Western Ecological, 2021). No Threatened flora species are known to occur within the local area, based on a 20 kilometre radius database search, and none were recorded within the application area during the flora survey (DBCA, 2007-; Western Ecological, 2021).</p> <p>Three priority flora were recorded within the application area, none of which represented floristic range extensions (Western Ecological, 2021). <i>Acacia speckii</i> (P4) and <i>Dodonaea amplicemina</i> (P4) were located mostly on landforms underlain by metabasalt in the south-western section of the survey area and extended to the south and west outside the survey area. <i>Sauropus sp. Woolgorong</i> (P3) occurred on the plains mostly within drainage lines and depressions (Western Ecological, 2021).</p> <p>All three priority flora species were represented in low numbers (10 or less individuals) within the application area, with a continuation of populations noted outside of the area, and database records indicating that these taxa are sparsely widespread locally and through several bioregions (Western Ecological, 2020; Western Australian Herbarium, 1998-). Big Bell Gold (2021) have confirmed that the mine site infrastructure will be positioned to avoid all of the surveyed locations of the Priority species within the application area. Hence, potential impacts of the proposed clearing to the three Priority flora species may be minimised through implementation of a flora management condition.</p> <p>A fauna desktop review outlined a total of 265 vertebrate species from 80 families occurring within 40 kilometres of the application area (DAWE, 2021; DBCA, 2007-; Western Ecological, 2021). These were comprised of six amphibian species, 50 reptile species, 171 bird species from 53 families, and 38 mammal species. This included a total of 37 conservation significant vertebrate species, of which only two were deemed likely to possibly occur within the application area, based on habitat preferences (Western Ecological, 2021).</p> <p>Four fauna habitat types were described within the application area, all of which are locally common and are not likely to support a higher level of faunal diversity than surrounding areas (Western Ecological, 2021).</p>
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No weeds were recorded in the area as part of the survey (Western Ecological, 2020), however several species of weeds are known to occur regionally and locally, particularly in disturbed areas (DAWE, 2021). Implementation of a weed management condition may minimise the risk of spread of weeds into the application area.

The vegetation associations, fauna habitats and landform types present within the application area, are well represented in surrounding areas (Western Ecological, 2020; 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** Big Bell Gold (2021)  
CALM (2002)  
DAWE (2021)  
DBCA (2007-)  
Western Australian Herbarium (1998-)  
Western Ecological (2021)  
Westgold (2021)

GIS Database:  
- IBRA Australia  
- Pre-European Vegetation  
- Threatened and Priority Ecological Communities Boundaries  
- Threatened and Priority Ecological Communities Buffers  
- Threatened and Priority Flora  
- 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.**

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

Four broad fauna habitats were described for the application area, as part of the fauna survey completed by Western Ecological (2021):

- Stony Plains and rises: Overstorey of mixed Acacia, mid-storey of sparse to isolated shrubs over low sparse shrubland;
- Acacia Shrubland: Overstorey of tall open shrubland over open shrubland over low sparse shrubland;
- Drainage Area: Overstorey of mixed Acacia isolated trees and tall open shrubland. Midstorey of tall open shrubland over low open shrubland; and
- Drainage Line: Tall open woodland of mixed Acacia trees over a midstorey of open shrubland

These habitats are well represented and widespread locally and regionally, and the vegetation within the application area is unlikely to provide significant habitat for local fauna species (Western Ecological, 2021; GIS Database).

The West Coast Mulga Slider (*Lerista eupoda*, P1) and Western Spiny-tailed Skink (*Egernia stokesii badia*, VU/EN) are reptile species of conservation significance with some likelihood of occurrence within the application area, based on distribution records and available habitats (DAWE, 2021; DBCA, 2007-; Western Ecological, 2021). The species have broader local distribution ranges and large tracts of suitable habitat extend beyond the application area (GIS Database). Hence, the application area is unlikely to represent significant habitat for these species.

Two conservation significant fauna species were targeted during the field survey, the Malleefowl (*Leipoa ocellata*, T) and the Night Parrot (*Pezoporus occidentalis*, T), as the application area is part of their known distribution range (DAWE, 2021; DBCA, 2007-). No evidence of these species was observed, and the survey area was considered unsuitable due to a lack of adequate canopy cover and absence of spinifex (Western Ecological, 2021).

The vegetation proposed to be cleared is unlikely to represent significant habitat for native fauna, in a regional context.

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

**Methodology** DAWE (2021)  
DBCA (2007)  
Western Ecological (2021)

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, threatened 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 (Western Ecological, 2021).

The vegetation associations within the application area are common and widespread within the region (Western Ecological, 2021; GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened flora.

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

**Methodology** Western Ecological (2021)

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 (Western Ecological, 2021).

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

**Methodology** Western Ecological (2021)

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 Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Murchison Bioregion (Government of Western Australia, 2019).

The application area is broadly mapped as Beard vegetation association 18: Low woodland; mulga (*Acacia aneura*) (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 – Murchison	28,120,586	28,044,823	~99	Least Concern	~7.7
Beard vegetation associations – WA					
18	19,892,306	19,843,148	~99	Least Concern	~6.6
Beard vegetation associations – Murchison Bioregion					
18	12,403,172	12,363,252	~99	Least Concern	~4.9

\* 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 (Western Ecological, 2021; GIS Database). Several seasonal creek line passes through the application area (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2002).

Based on the above, the proposed clearing is at variance to this Principle. However, the vegetation survey of the application area did not identify any riparian vegetation (Western Ecological, 2021), and impacts from the proposed clearing to vegetation growing in association with watercourses is likely to be minimal. Nevertheless, potential impacts to vegetation growing in association with the watercourses may be minimised by the implementation of a vegetation management condition.

**Methodology** CALM (2002)  
Western Ecological (2021)

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 is mapped as occurring on the Gabanintha, Violet and Yanganoo 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 Gabanintha land system is described as ridges, hills and footslopes of various metamorphosed volcanic rocks (greenstones), supporting sparse acacia and other mainly non-halophytic shrublands. This system is generally not susceptible to erosion but has been widely scarred by past mining activities (Curry et al., 1994).

The Violet Land System is described as gently undulating gravelly plains on greenstone, laterite and hardpan, with low stony rises and minor saline plains; supporting groved mulga and bowgada shrublands and patchy halophytic shrublands. The Violet land system is generally not susceptible to erosion, however the removal of vegetation on drainage tracts can lead to increased erosion (Curry et al., 1994).

The Yanganoo land system is described as almost flat hardpan wash plains, with or without small wanderrie banks and weak groving; supporting mulga shrublands and wanderrie grasses on banks. The hardpan plains of the Yanganoo land system are locally susceptible to accelerated erosion when severely degraded (Curry et al., 1994).

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

Potential impacts of erosion may be minimised by the implementation of a staged clearing condition.

**Methodology** Curry et al. (1994)

GIS Database:  
- Landsystem Rangelands  
- Soils, Statewide

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

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

The application area is not within or near any conservation areas (GIS Database). The nearest DBCA managed land is the former Lakeside ex pastoral lease, located approximately 23 kilometres south of the application area, at its nearest point (GIS Database). The proposed clearing is not likely 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 near the application area (GIS Database). There are no permanent watercourses or wetlands 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 groundwater in the application area is brackish, ranging from 1,000 to 3,000 milligrams/litre total dissolved solids (GIS Database). 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 233 millimetres per year (BoM, 2021). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2002).

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 (2021)  
CALM (2002)  
  
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 15 March 2021 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 (WC2004/010) over the area under application (DPLH, 2021). This claim has been determined by the Federal Court on behalf of the claimant group WAD28/2019. 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, 2021). 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 (2021)

## 4. References

- Big Bell (2020) Additional information received in relation to Clearing Permit Application CPS 9070/1. Big Bell Gold Operations Pty Ltd, Western Australia.
- BoM (2021) Bureau of Meteorology Website – Climate Data Online, Cue Station. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 29 April 2021).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- Curry, P.J., Payne, A.L., Leighton, K.A., Hennig, P. and Blood, D.A. (1994) Technical Bulletin - An Inventory and Condition Survey of the Murchison River Catchment and Surrounds, Western Australia, No. 84. Department of Agriculture, Government of Western Australia, Perth, Western Australia.
- DAWE (2021) EPBC Act Protect Matters Search Tool. Department of Agriculture, Water and the Environment. <https://www.environment.gov.au/epbc/protected-matters-search-tool> (Accessed 27 April 2021).
- DBCA (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Biodiversity, Conservation and Attractions. <https://naturemap.dbca.wa.gov.au/> (Accessed 27 April 2021).
- DPLH (2021) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 28 April 2021).
- 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 (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. <https://florabase.dpaw.wa.gov.au/> (Accessed 28 April 2021).
- Western Ecological (2021) Accelerator and Indicator Mining Areas, Reconnaissance Flora and Vegetation Survey and Basic Terrestrial Fauna Survey – Final Report. Prepared for Westgold Resources Limited by Western Ecological Pty Ltd, January 2021.
- Westgold (2021) Supporting additional information received in relation to Big Bell Operations Clearing Permit Application CPS 9228/1. Westgold Resources Limited, Western Australia.

## 5. Glossary

### Acronyms:

<b>BC Act</b>	<i>Biodiversity Conservation Act 2016</i> , Western Australia
<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>DAWE</b>	Department of Agriculture, Water and the Environment, Australian Government
<b>DBCA</b>	Department of Biodiversity, Conservation and Attractions, Western Australia
<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>DoEE</b>	Department of the Environment and Energy (now DAWE)
<b>DoW</b>	Department of Water, Western Australia (now DWER)
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia (now DBCA)
<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 (now known as Threatened Flora)
<b>DWER</b>	Department of Water and Environmental Regulation, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPA</b>	Environmental Protection Authority, 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:**

{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.