



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 9144/1

Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Mount Gibson Mining Limited

### 1.3. Property details

Property: Mining Lease 59/406  
Miscellaneous Licence 59/54

Local Government Area: Shire of Yalgoo

Colloquial name: Shine Haul Road

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
6.109		Mechanical Removal	Road Construction and Maintenance

### 1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 22 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 associations:  
202: Shrublands; mulga & *Acacia quadrimarginea* scrub;  
352: Medium woodland; York gum; and  
420: Shrublands; bowgada & jam scrub (GIS Database).

A flora and vegetation survey was conducted over the application area by Ecologia Environment (Ecologia) during 8-11 April 2014. The following vegetation types were recorded within the application area (Ecologia, 2014):

#### **ArrAbExDf**

Tall *Acacia ramulosa* var. *ramulosa* and *Acacia burkittii* shrubland over mid *Eremophila exilifolia* and *Drummondita fulva* sparse shrubland.

#### **ArrAcGooEffPt**

Tall *Acacia ramulosa* var. *ramulosa*, *Acacia caesaneura* and *Grevillea obliquistigma* subsp. *obliquistigma* sparse shrubland over mid *Eremophila forrestii* subsp. *forrestii* and *Philothea tomentella* sparse shrubland.

#### **ArrAsEcAshHe**

Tall *Acacia ramulosa* var. *ramulosa* and *Acacia sibina* shrubland over, mid *Eremophila clarkei* and *Aluta aspera* subsp. *hesperia* sparse shrubland, over low *Hibbertia exasperata* sparse shrubland.

#### **EhAcArrEffOp**

Low *Eucalyptus horistes* open woodland, over tall *Acacia caesaneura* and *Acacia ramulosa* var. *ramulosa* sparse shrubland, over mid *Eremophila forrestii* subsp. *forrestii* and *Olearia pimeleoides* sparse shrubland.

#### **ElsArrEaSdPo**

Low *Eucalyptus loxophleba* subsp. *supralaevis* open woodland, over tall *Acacia ramulosa* var. *ramulosa* and *Exocarpos aphyllus* sparse shrubland, over low *Sclerolaena diacantha* and *Ptilotus obovatus* sparse shrubland.

#### **MhAtAsAt**

Low *Melaleuca hamata* with/or without *Allocasuarina tessellata* open woodland, over mid *Acacia sibina* and *Acacia tetragonophylla* sparse shrubland.

#### **Clearing Description**

Shine Haul Road.  
Mount Gibson Mining Limited proposes to clear up to 6.109 hectares of native vegetation within a boundary of approximately 105.758 hectares, for the purpose of a haul road. The project is located approximately 112.5

kilometres southwest of Mount Magnet, within the Shire of Yalgoo.

<b>Vegetation Condition</b>	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).  to  Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).
<b>Comment</b>	The vegetation condition was derived from a vegetation survey conducted by Ecologia (2014).  The proposed clearing is to upgrade the existing Minjar Haul Road and construct a diversion to avoid an increase in heavy traffic through the existing Minjar Gold Project.

### 3. Assessment of application against Clearing Principles

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

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

The clearing permit application area is located within the Talling subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Yalgoo Bioregion (GIS Database). The Yalgoo Bioregion is characterised by low woodlands to open woodlands of *Eucalyptus*, *Acacia* and *Callitris* on red sandy plains of the Western Yilgarn Craton and southern Carnarvon Basin (CALM, 2002). Mulga, *Callitris-Eucalyptus salubris*, and Bowgada open woodlands and scrubs on earth to sandy-earth plains in the western Yilgarn Craton (CALM, 2002). The subregion is rich in ephemerals (CALM, 2002).

A flora and vegetation survey was conducted over the application area and surrounds but Ecologia (2014) on 8-11 April 2014. The vegetation of the application area is dominated by *Acacia* shrublands and *Eucalyptus* open woodlands (Ecologia, 2014). No Threatened Ecological Communities were identified as potentially occurring within the application area and none of the vegetation types mapped and described are listed as Threatened Ecological Communities (Ecologia, 2014; Mount Gibson, 2020; GIS Database). Parts of the application area lie within Priority Ecological Community (PEC, P1) Minjar and Chulaar Hills Banded Iron Formation (BIF) (GIS Database; Ecologia, 2014; Mount Gibson, 2020). Mount Gibson (2020) will limit the clearing of this PEC to 4.773 hectares of vegetation. The Minjar and Chulaar Hills BIF extends well beyond the application area, totalling approximately 12,126 hectares (GIS Database). The proposed clearing is unlikely to have a significant impact on this PEC, given 4.773 hectares represents approximately 0.04% of the Minjar and Chulaar Hills BIF PEC (GIS Database).

A total of 104 flora species from 57 genera and 29 families were recorded within the application area and surrounds (Ecologia, 2014). Two Priority flora species were recorded within the application area: *Drummondia fulva* (P3) and *Micromyrtus ?trudgenii* (P3) (Ecologia, 2014; Mount Gibson, 2020). Potential impacts to these Priority flora populations are expected to be minimal, with only a few individuals potentially affected (Ecologia, 2012; Mount Gibson, 2020). Mount Gibson (2020) will mark these individuals in the field and they will be avoided when clearing is undertaken. The local populations for these two Priority flora species are well represented in the surrounds and are widely distributed within the region (Ecologia, 2014; EPA, 2013; Mount Gibson, 2020)

No Threatened flora was recorded within the application area, however *Stylidium scintillans* (T) was recorded outside the application within vegetation type 'ArrAbExDf' (Ecologia, 2014). The flora survey conducted in 2014 was not conducted during the optimal time of year for *Stylidium scintillans*' flowering period (Ecologia, 2014; Mount Gibson, 2020). A seasonally appropriate survey was conducted in Spring 2020 and confirmed that there was no evidence of *Stylidium scintillans* within the application area (Mount Gibson, 2020).

A desktop assessment identified a total of 231 terrestrial vertebrate fauna species, including 18 native and six introduced species of mammal, 151 birds, 53 reptiles and three amphibians having been previously recorded within 30 kilometres of the application area (Ecologia, 2014). Seven conservation significant fauna species were considered possibly occurring within the application due to suitable habitat present or previous records within the local area (Ecologia, 2014). None of these species were considered to be reliant upon the application area for habitat (Ecologia, 2014; Mount Gibson, 2020).

A total of 53 fauna species were recorded from both direct sightings and indirect evidence such as scats and calls, including seven native and two introduced mammals, 36 birds and eight reptiles during the field assessment of the application area and surrounds (Ecologia, 2014). No conservation significant fauna were recorded within the application area (Ecologia, 2014).

The vegetation associations, fauna habitats and landform types present within the application area, are well represented in surrounding areas (Ecologia, 2014; Mount Gibson, 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 may be at variance to this Principle.

**Methodology** CALM (2002)  
Ecologia (2014)  
EPA (2013)  
Mount Gibson (2020)

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 may be at variance to this Principle**

The following three fauna habitats have been recorded within the application area (Ecologia, 2014):

- *Acacia* shrubland on clayey low slopes and plains;
- Open eucalypt woodland; and
- *Acacia* shrubland on ironstone ridge.

None of the fauna habitats recorded are restricted to the application area and are well represented within the Talling subregion, with the exception of *Acacia* shrubland on ironstone ridge habitat type (Ecologia, 2014; Mount Gibson, 2020). *Acacia* shrubland on ironstone ridge is considered an important habitat type within the local region as it is not widely distributed (Mount Gibson, 2014). Despite this habitat type being regionally restricted, it is not considered significant fauna habitat for any fauna species that have been previously recorded within the general area (Ecologia, 2014; Mount Gibson, 2020). The proposed clearing is small (6.109 hectares), with this habitat type totalling approximately 1.6 hectares within the application area.

No conservation significant fauna species were recorded within the application area (Ecologia, 2014; Mount Gibson, 2020). Seven conservation significant fauna species may potentially occur within the application area based on previous records within the general area (Ecologia, 2014). None of these species preferred habitat is restricted to the application area, with all habitats extending into the surrounds (Ecologia, 2014).

The open eucalypt woodland habitat type is suitable for western spiny-tailed skink (*Egernia stokesii badia*, VU at a state and EN at a federal level). Potential secondary evidence (scats) was recorded outside the application area, suggesting the species may be present within the open eucalypt woodland habitat type (Ecologia, 2014). This habitat type is limited within the application area and, with most having been previously cleared within the application area (Ecologia, 2014; GIS Database). This habitat type extends beyond the application area within the surrounds (Ecologia, 2014). The small area of preferred habitat within the application area unlikely to be necessary for the maintenance of western spiny-tailed skink.

Active and inactive malleefowl (*Leipoa ocellata*, VU at a state and federal level) mounds have been recorded within the surrounds, within *Acacia* shrubland on rocky slope habitat (Ecologia, 2014). No suitable nesting habitat is present for malleefowl as *Acacia* shrubland on rocky slope habitat type is absent from the application area (Ecologia, 2014; Mount Gibson, 2020). Potential impacts to malleefowl are therefore considered to be low (Ecologia, 2014; Mount Gibson, 2020).

Based on the above, the proposed clearing may be at variance to this Principle. However, much of the application area has been previously cleared due to the existing road, and the fauna habitats found within the application area extend into the surrounds (GIS Database; Ecologia, 2014; Mount Gibson, 2020). The proposed clearing of 6.109 hectares to create a road diversion and upgrade the existing track is unlikely to significantly impact any fauna species.

**Methodology** Ecologia (2014)  
Mount Gibson (2020)

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 (Ecologia, 2014; Mount Gibson, 2020).

The vegetation associations within the application area are common and widespread within the region (Ecologia, 2014; GIS Database). Threatened flora species *Stylidium scintillans* is known and expected to occur within vegetation type 'ArrAbExDf', however this species was not recorded during any field assessment (Ecologia, 2014; Mount Gibson, 2020). This vegetation type comprises a very small portion of the application area (approximately 1 hectare), and the vegetation proposed to clear is unlikely to be necessary for the continued existence of *Stylidium scintillans* (Ecologia, 2014)

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

**Methodology** Ecologia (2014)  
Mount Gibson (2020)

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 (Ecologia, 2014; Mount Gibson, 2020; GIS Database).

A flora and vegetation survey of the application area did not identify any TECs (Ecologia, 2014).

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

**Methodology** Ecologia (2014)  
Mount Gibson (2020)

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 may be variance to this Principle**

The application area falls within the Yalgoo Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 97% of the pre-European vegetation still exists in the IBRA Yalgoo Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations 202: Shrublands; mulga & *Acacia quadrimarginea* scrub; 352: Medium woodland; York gum; and 420: Shrublands; bowgada & jam scrub (GIS Database). Approximately 96-99% of the pre-European extent of vegetation associations 202 and 420 remain uncleared at a state, bioregional and subregional level (Government of Western Australia, 2019). The exception to this is vegetation association 352, with approximately 19% of the pre-European extent remaining at a state level (Government of Western Australia, 2019; GIS Database). Approximately 99% of vegetation association 352 remains uncleared at a bioregional and subregional level (Government of Western Australia, 2019; GIS Database).

The application area is unlikely to represent a significant remnant of native vegetation in an area that has been extensively cleared at a bioregional and subregional level. Vegetation association 352 covers approximately 2.5 hectares of the application area (~2.4%) (GIS Database). The proposed clearing is unlikely to significantly reduce the extent of vegetation association 352 at a state level.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA managed lands
IBRA Bioregion – Yalgoo	5,057,325	4,923,840.47	~97	Least Concern	31.34
Beard vegetation associations – WA					
202	448,529	448,343	~99	Least Concern	22.91
352	724,268	142,012	~19	Vulnerable	1.80
420	859,632	830,216	~96	Least Concern	14.11
Beard vegetation associations – Yalgoo Bioregion					
202	45,096	45,011	~99	Least Concern	40.08
352	14,280	14,255	~99	Least Concern	1.92
420	621,396	620,265	~99	Least Concern	16.38
Beard vegetation associations – Talling Subregion					
202	45,096	45,011	~99	Least Concern	40.08
352	14,280	14,255	~99	Least Concern	1.92
420	615,816	614,685	~99	Least Concern	16.53

\* Government of Western Australia (2019)

\*\* Department of Natural Resources and Environment (2002)

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

There are no permanent watercourses or wetlands within the area proposed to clear (Ecologia, 2014; Mount Gibson, 2020; GIS Database). Several drainage line pass through the application area (GIS Database). Drainage lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall (Ecologia, 2014). The vegetation survey of the application area did not identify any riparian vegetation (Ecologia, 2014).

Based on the above, the proposed clearing is not likely to be at variance to this Principle. Impacts from the proposed clearing on any vegetation growing in association with watercourses are likely to be minimal.

**Methodology** Ecologia (2014)  
Mount Gibson (2020)

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 Rainbow, Talling, Tealtoo, and Watson 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 Rainbow land system is described as hardpan plains supporting mulga shrublands (Payne et al., 1998). This land system is not generally susceptible to erosion, however impedance of sheet flow can initiate erosion (Payne et al., 1998).

The Tallering land system consists of prominent ridges and hills of banded ironstone, dolerite and sedimentary rocks supporting bowgada and other *Acacia* shrublands (Payne et al., 1998). Disturbance to stone mantles may initiate erosion, however this land system is generally not susceptible to erosion (Payne et al., 1998).

The Tealtoo land system is described as Level to gently undulating loamy plains with fine ironstone lag gravel supporting dense *Acacia* shrublands (Payne et al., 1998). This land system is not generally susceptible to erosion (Payne et al., 1998).

The Watson land system consists of hills, rises and gravelly plains on sedimentary rocks supporting bowgada shrublands with non-halophytic undershrubs (Payne et al., 1998). Disturbance to stone mantles may initiate erosion, however this land system is generally not susceptible to erosion (Payne et al., 1998).

The proposed clearing 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** Payne et al. (1998)

GIS Database:  
- Landsystem Rangelands

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

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

The application area is not located within a conservation area. The nearest DBCA (formerly DPaW) managed land is the former Warriedar Pastoral Lease which is located approximately 0.34 kilometres southeast 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 semi-arid, with an average rainfall of approximately 239.1 millimetres per year (BoM, 2021; CALM, 2002). There are no permanent water courses or waterbodies within the application area (GIS Database). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (Ecologia, 2014). 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)  
Ecologia (2014)

GIS Database:  
- Hydrography, linear

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

### Comments

The clearing permit application was advertised on 1 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 are two native title claims (WC2019/008; WC1996/098) over the area under application (DPLH, 2021). These claims have been determined by the Federal Court on behalf of the claimant groups. 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

- BoM (2021) Bureau of Meteorology Website – Climate Data Online, Mount Magnet. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 1 April 2021).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DPLH (2021) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 31 March 2021).
- Ecologia (2014) Mount Gibson Iron Limited, Level 1 Flora and Fauna Assessment, Shine Haul Road. Prepared for Mount Gibson Iron Limited, by Ecologia Environmental Consultants, July 2014.
- EPA (2013) Report and recommendations of the Environmental Protection Authority. Shine Iron Ore Project, Shire of Yalgoo. Government of Western Australia, Environmental Protection Authority, April 2013.
- 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.
- Mount Gibson (2020) Native Vegetation Clearing Permit Application – Minjar Haul Road North Upgrade Construction and Operation. Prepared by Mount Gibson Mining Limited, December 2020.
- Payne, A.L., van Vreeswyk, A.M., Leighton, K.A., Pringle, H.J. and Hennig, P. (1998), An inventory and condition survey of the Sandstone-Yalgoo-Paynes Find area, Western Australia. Department of Agriculture and Food, Western Australia, Perth. Technical Bulletin 90.

## 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.