



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 9052/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: MH Gold Pty Ltd

1.3. Property details

Property: Exploration Licence 77/2137
Local Government Area: Shire of Kondinin
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 17 December 2020

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: 511: Medium woodland; salmon gum & morrel (GIS Database).

A flora and vegetation survey was conducted over the application area by AECOM on 29 October 2019. The following three vegetation associations were recorded within the application area (AECOM, 2020):

EuAcAm / Eucalypt Woodland

Eucalyptus urna and *Eucalyptus phenax* subsp. *phenax* low woodland over *Melaleuca teuthoides*, *Melaleuca quadrifaria* and *Eremophila ionantha* mid sparse shrubland over *Acacia hemiteles*, *Wilsonia humilis* and *Microcybe multiflora* subsp. *multiflora* low sparse shrubland. Recorded on undulating terrain on loam soils with some gravel on surface. Not statistically similar to any of the other quadrats completed for the project, however vegetation was observed to be locally common in this area. Includes population of *Eutaxia acanthoclada* (P3).

EyDsAi/Eucalypt Woodland

Eucalyptus yilgamensis, *Eucalyptus salmonophloia* and *Eucalyptus calycogona* subsp. *calycogona* mid woodland over *Daviesia scoparia*, *Exocarpos aphyllus* and *Acacia hemiteles* mid shrubland over *Acacia intricata*, *Acacia merrallii* and *Grevillea acuaria* low sparse shrubland. Recorded on flat landscape with loam soils.

EIMqAv/Open Woodland/ Shrubland

Eucalyptus longicornis and *Eucalyptus urna* low open woodland over *Melaleuca quadrifaria* tall open shrubland over *Atriplex vesicaria*, *Daviesia scoparia* and *Sclerolaena diacantha* mid to low open shrubland. Recorded on slopes on clay loam soils.

Clearing Description MH Gold Pty Ltd proposes to clear up to 1.07 hectares of native vegetation within a boundary of approximately 28.23 hectares, for the purpose of mineral exploration. The project is located approximately 79 kilometres east of Hyden, within the Shire of Kondinin.

Vegetation Condition Pristine: No obvious signs of disturbance (Keighery, 1994).

Comment In areas of low growing non-woody vegetation, vegetation will not be cleared ahead of access but travel will occur on the vegetated surface to minimise ground and vegetation disturbance. In areas where taller shrubs and other woody vegetation cannot be avoided, and the risk of tyre punctures is higher, the vegetation will be cleared ahead of access with a small front end loader using a raised bucket method, which leaves the soil surface and roots largely undisturbed. The cleared vegetation will be placed in windrows along the access route or drill line, to be respread during rehabilitation (Blueprint, 2020).

Aerial imagery indicates that existing access tracks will be utilised for the proposed drill holes in the south of the application area (GIS Database).

The vegetation condition was described in the vegetation survey conducted by AECOM using a scale based on Trudgen (1988), and has been converted to the Keighery scale (Keighery, 1994).

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 Southern Cross subregion of the Interim Biogeographic Regionalisation for Australia Coolgardie Bioregion (GIS Database). The Southern Cross subregion is characterised by gently undulating uplands dissected by broad valleys with bands of low greenstone hills. Valleys have Quaternary duplex and gradational soils, and include chains of saline playalakes. The granite basement outcrops at mid-levels in the landscape and supports swards of *Borya constricta*, with stands of *Acacia acuminata* and *Eucalyptus loxophleba*. Upper levels in the landscape are the eroded remnants of a lateritic duricrust yielding yellow sandplains, gravelly sandplains and laterite breakaways. Mallees (*Eucalyptus leptopoda*, *E. platycorys* and *E. scyphocalyx*) and scrub-heaths (*Allocasuarina corniculata*, *Callitris preissii*, *Melaleuca uncinata* and *Acacia beauverdiana*) occur on these uplands, as well as on sand lunettes associated with playas along the broad valley floors, and sand sheets around the granite outcrops. The scrubs are rich in endemic acacias and Myrtaceae (CALM, 2002).

The application area is within the Great Western Woodlands, an area recognised as the largest remaining area of intact Mediterranean-climate woodland on earth and considered to have significant value due to its high biological richness (AECOM, 2020).

The application area occurs within the Lake Cronin Area which is listed on the Register of National Estate for its high level of flora and fauna diversity and endemism (GIS Database). The Lake Cronin Area is also described as being an important refuge for rare species due to widespread clearing in the wheatbelt to the west. Rare species include fauna such as the Malleefowl (*Leipoa ocellata*) and flora species such as *Eucalyptus steedmanii* (Australian Heritage Database, 2020).

A flora and vegetation survey of the application area was conducted on 29 October 2019 (AECOM, 2020). The flora survey advises that it was a targeted survey, however it is unclear which species were targeted. An additional targeted flora survey was completed on 1 October 2020 which searched for *Acacia asepala*. There were 36 species from 17 genera and 11 families recorded within the application area (AECOM, 2020).

There were two Priority flora species identified within the application area; *Acacia asepala* (Priority 2) and *Eutaxia acanthoclada* (Priority 3). There was one population of 44 individuals of *A. asepala*, and one population of 200 individuals of *E. acanthoclada* recorded within the application area (AECOM, 2020). The majority of the population of *A. asepala* extends outside the application area, as well as several individuals of *E. acanthoclada* (AECOM, 2020). The proposed clearing of 1.07 hectares of native vegetation within a boundary of 28.23 hectares is not likely to impact the conservation significance of these species.

The Priority 3 Ecological Community 'Ironcap Hills vegetation assemblages (Mt Holland, Middle, North and South Ironcap Hills, Digger Rock and Hatter Hill (greenstone ranges)' occurs within the application area (AECOM, 2020; GIS Database). The application area sits within an area of the PEC in which the vegetation has not yet been fully described (DBCA, 2020). The proposed clearing of 1.07 hectares represents a small proportion of the PEC, however Gibson (2004) notes that many plant communities are restricted to this area, and further disturbance to this PEC should be avoided.

No weed species were identified within the application area (AECOM, 2020). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. Care should be taken to ensure that weeds do not get introduced into the area as the result of clearing activities. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

Given the application area is within a Register of National Estate site, the Great Western Woodlands and a PEC, the application area is considered to comprise a high level of biological diversity. However, the small amount of proposed clearing (1.07 hectares) and rehabilitation requirements of the proposed activities will not likely impact the values of the surrounding area.

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

Methodology

AECOM (2020)
Australian Heritage Database (2020)
CALM (2002)
DBCA (2020)
Gibson (2004)

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 indigenous to Western Australia.

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

A Level 1 fauna survey was conducted over the application area on 29 October 2019. Two faunal habitats were identified during the survey;

- Eucalypt Woodland: Open woodland on a flat to undulating terrain characterised by loam soils with some ferruginous gravel on surface. Small and medium logs common, with some large logs scattered throughout. Some small hollows were observed. The understorey was open to dense. This area provides good quality fauna habitat with moderate structural complexity; and
- Open Shrubland: Open shrubland to low open woodland of Eucalyptus trees over Melaleuca on clay loam slopes with ferruginous gravel. Leaf litter generally common but no hollows evident. Cryptogamic crust common and ground often bare, with little dense understorey. This area provides moderate to good quality fauna habitat with moderate structural complexity (AECOM, 2020).

There are seven conservation significant fauna species that are likely to occur within the application area based on suitable habitat types:

- Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) (Endangered);
- Malleefowl (*Leipoa ocellata*) (Vulnerable);
- Chuditch (*Dasyurus geoffroii*) (Vulnerable);
- Western Brush Wallaby (*Notamacropus Irma*) (Priority 4);
- Lake Cronin Snake (*Paroplocephalus atriceps*) (Priority 3);
- Western Rosella (*Platycercus icterotis*) (Priority 4); and
- Peregrine Falcon (*Falco peregrinus*) (OS) (AECOM, 2020).

The Eucalypt Woodland habitat type provides potential foraging and nesting habitat for Carnaby's Black Cockatoo, in particular the Salmon gums (*Eucalyptus salmonophloia*) within the application area. This species could be expected to occur on an infrequent basis, foraging within the application area during their annual migration activities. Blueprint (2020) advise that the path of least resistance through vegetation will be chosen for the proposed clearing, and large trees and shrubs will be avoided where possible.

There were two Malleefowl mounds identified within the application area, neither which showed evidence of recent use (AECOM, 2020). Malleefowl have been known to reuse 'old' mounds that have been inactive for a number of years (Priddel and Wheeler, 2003). Potential impacts to Malleefowl as a result of the proposed clearing may be minimised by the implementation of a fauna management condition.

Suitable habitat occurs for the Chuditch and Western Brush Wallaby within the application area, and there are several records of this species with 20 kilometres of the application area (AECOM, 2020). These habitats are common in the surrounding area and are likely to be used by these fauna species as a part of a larger home range, than be reliant specifically on the habitat within the application area. The proposed clearing of 1.07 hectares is not likely to impact the conservation significance of these species.

Records of the Lake Cronin snake are limited to the Lake Cronin and Peak Eleanora areas (AECOM, 2020). Given the small scale nature of the proposed clearing, it is not likely that the clearing of 1.07 hectares of native vegetation will impact this species.

The Peregrine Falcon and Western Rosella are likely to use the application area for foraging and dispersal but it is not likely to represent significant habitat for these species.

The habitat types identified within the application area are common and widespread in the region (AECOM, 2020).

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

Methodology AECOM (2020)
Blueprint (2020)
Priddel and Wheeler (2003)

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). The flora and vegetation survey of the application area did not record any species of Threatened flora (AECOM, 2020). Based on the habitat present within the application area, it is not likely that the vegetation would support Threatened flora species (AECOM, 2020; GIS Database).

DBCA (2020) advise that there may be suitable habitat for *Banksia sphaerocarpa* var. *dolichostyla* and *Eucalyptus steedmanii* within the application area. These species were not identified during the AECOM (2020) survey, however any impact to Threatened flora species would require a Section 40 Authorisation under the *Biodiversity Conservation Act 2016* (DBCA, 2020).

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

Methodology AECOM (2020)
DBCA (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 (GIS Database).

A flora and vegetation survey of the application area did not identify any TECs (AECOM, 2020).

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

Methodology AECOM (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 is not at variance to this Principle

The application area falls within the Coolgardie Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 97% of the pre-European vegetation still exists in the IBRA Coolgardie Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation association 511: Medium woodland; salmon gum & morrel (GIS Database). Over 74% 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 – Coolgardie	12,912,204	12,648,491	~97.96	Least Concern	16.39
Beard vegetation associations – WA					
511	700,693	520,615	~74.3	Least Concern	15.37
Beard vegetation associations – Coolgardie Bioregion					
511	464,424	435,177	~93.7	Least Concern	19.35

* 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 not at variance to this Principle**

There are no watercourses or wetlands within the area proposed to clear (Blueprint, 2020; GIS Database).

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

Methodology Blueprint (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 contains soil types X17 and Ya28, which have been defined by Tille (2006) as:

X17: Slopes and valleys: chief soils are sandy neutral and alkaline yellow mottled soils; and

YA28: Sandy plains with some clay pans and small salt lakes, dunes, and lunettes: chief soils are sandy alkaline yellow mottled soils (Tille, 2006).

The proposed clearing of up to 1.07 hectares of native vegetation within a boundary of approximately 28.23 hectares, for the purpose of mineral exploration 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 Tille (2006)

GIS Database:

- 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 may be at variance to this Principle**

The application area occurs within an Environmentally Sensitive Area (Register of National Estate), the Lake Cronin Area (GIS Database).

According to the Australian Heritage Database (2020) the Lake Cronin Area is one of a number of areas in the south-west which has provided excellent conditions for the persistence of a range of primitive and relict species. At over 31,000 hectares, the Lake Cronin Area is a significant area in maintaining existing processes at a regional scale and therefore is a potentially important contemporary refugia for many species (Australian Heritage Database, 2020; GIS Database).

The Lake Cronin Area is dominated by mallee and woodland associations (Australian Heritage Database, 2020). The habitat to be cleared is therefore well represented within the conservation estate. Lake Cronin Nature Reserve is surrounded by extensive vegetation and the clearing of up to 1.07 hectares of vegetation is not likely to significantly impact the Lake Cronin Area.

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

Methodology Australian Heritage Database (2020)

GIS Database:
- DPaW Tenure
- Register of National Estate

(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). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall. The proposed clearing is unlikely to result in significant changes to surface water flows.

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

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

Methodology 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 arid to semi-arid warm Mediterranean climate, with mainly winter rainfall of approximately 300 millimetres per year (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 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 28 September 2020 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 over the area under application (DPLH, 2020). This claim has been registered with the National Native Title Tribunal 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, 2020). 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.

It is noted that the proposed clearing may impact on Malleefowl, a protected matter under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent may be required to refer the project to the (Federal) Department of Agriculture, Water and the Environment for environmental impact assessment under the EPBC Act. The proponent is advised to contact the Department of Agriculture, Water and the Environment for further information regarding notification and referral responsibilities under the EPBC Act.

Methodology DPLH (2020)

4. References

- AECOM (2020) E77/2137 Flora and Fauna Assessment. Prepared for Wesfarmers Chemicals, Energy and Fertilisers by AECOM Australia Pty Ltd, November 2020.
- Australian Heritage Database (2020) Register of National Estate: Lake Cronin Area. http://www.environment.gov.au/cgi-bin/ahdb/search.pl?mode=place_detail;search=place_name%3DLake%2520Cronin%3Bkeyword_PD%3Don%3Bkeyword_SS%3Don%3Bkeyword_PH%3Don%3Blatitude_1dir%3DS%3Blongitude_1dir%3DE%3Blongitude_2dir%3DE%3Blatitude_2dir%3DS%3Bin_region%3Dpart:place_id=9929 (Accessed 14 December 2020).
- Blueprint (2020) Clearing Permit – Purpose Permit Application for Exploration on E77/2137 Assessment of Clearing Principles. Prepared for Wesfarmers Chemicals, Energy and Fertilisers by Blueprint Environmental Strategies Pty Ltd, August 2020.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DBCA (2020) Advice received in relation to Clearing Permit Application CPS 9052/1. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, December 2020.
- DPLH (2020) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 5 November 2020).
- 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.
- Gibson, N. (2004) Flora and vegetation of the Eastern Goldfields Ranges: Part 7. Middle and South Ironcap, Digger Rock and Hatter Hill. J of Royal Soc. of WA. 87: 49-64.
- 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.
- Priddel, D. and Wheeler, R. (2003), Nesting activity and demography of an isolated population of Malleefowl (*Leipoa ocellata*). Wildlife Research, 30, 451-464.
- Tille, P. J. (2006) Soil-landscapes of Western Australia's rangelands and arid interior. Department of Agriculture and Food, Western Australia, Perth. Report 313.
- Trudgen, M.E. (1988). A Report on the Flora and Vegetation of the Port Kennedy Area. Unpublished report prepared for Bowman Bishaw and Associates, West Perth.

5. Glossary

Acronyms:

BC Act	<i>Biodiversity Conservation Act 2016</i> , Western Australia
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)
DAWE	Department of Agriculture, Water and the Environment, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
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)
DoE	Department of the Environment, Australian Government (now DAWE)
DoEE	Department of the Environment and Energy (now DAWE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DSEWPac	Department of Sustainability, Environment, Water, Population and Communities (now DAWE)
DWER	Department of Water and Environmental Regulation, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPA	Environmental Protection Authority, Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (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	<i>Rights in Water and Irrigation Act 1914</i> , 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.