



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8822/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Forrestania Pty Ltd

1.3. Property details

Property: Exploration Licence 77/2348

Local Government Area: Shire of Kondinin

Colloquial name: Crossroads Exploration

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 3 September 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: Forrestania – medium woodland, salmon gum and morrel (GIS Database).

A flora and vegetation survey was conducted over the application area by Botanica Consulting during January, 2020. The following vegetation associations were recorded within the application area (Botanica Consulting, 2020):

CLP – EW1: Mid woodland of *Eucalyptus salmonophloia* over mallee shrubland of *E. cylindrocarpa*/ *E. eremophila* and low shrubland of *Acacia maculata*, *Acacia densifolia*/ *Eremophila drummondii* on clay loam plain.

CLP – MWS1: Mallee woodland of *Eucalyptus polita*/ *E. uma* over tall shrubland of *Melaleuca pauperiflora* and low shrubland of *Acacia merrallii*/ *A. tetragonophylla*/ *A. deficiens* on clay loam plain.

CLP – MWS2: Mallee woodland of *Eucalyptus depauperata* over tall shrubland of *Melaleuca pauperiflora* and low shrubland of *Senna artemisioides* subsp. *filifolia*/ *Daviesia nematophylla*/ *Baeckea crispiflora*/ *Westeringia cephalantha* on clay loam plain.

Clearing Description Crossroads Exploration.
Forrestania Pty Ltd proposes to clear up to 5 hectares of native vegetation within a boundary of approximately 45 hectares, for the purpose of mineral exploration. The project is located approximately 34 kilometres east of Hyden, within the Shire of Kondinin.

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

To

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

Comment The vegetation condition was derived from a vegetation survey conducted by Botanica Consulting (2020) and analysis of aerial imagery (GIS Database).

It should be noted that a wildfire burnt the application area and surrounding areas in December 2019, and the flora survey was carried out at the suboptimal time of year (January 2020). Both factors have adversely impacted the findings of the flora and vegetation survey.

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 may be at variance to this Principle**

The application area occurs within the Southern Cross (COO2) subregion of the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This sub-region is characterised by subdued relief, comprising of gently undulating lands dissected by broad valleys with bands of low greenstone hills (CALM, 2002). Diverse Eucalyptus woodlands rich in endemic eucalypts occur around salt lakes, on low greenstone hills, valley alluvials and broad plains of calcareous earths (CALM, 2002). Mallees and scrub-heaths occur on the uplands, sand lunettes associated with playas along the broad valley floors, and sand sheets around granite outcrops (CALM, 2002).

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. According to the Australian Heritage Database (2020), 16 fauna species that are endemic to either the south-west region or to Western Australia occur within the Lake Cronin Area. 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* and *Paragoodia crenulata*.

A flora and vegetation survey conducted over the application area identified 3 vegetation types (Botanica Consulting, 2020). No Threatened or priority flora or fauna species were identified within the survey area (Botanica Consulting, 2020). The vegetation within the application area has been previously disturbed for historic exploration and was of marginal quality due to the recent (December 2019) wildfire (Botanica Consulting, 2020; GIS Database). As a result of the survey timing and the fire impacts, detection of Threatened and priority flora species was hampered. A desktop assessment shows that there are 44 known records of priority flora in the nearby vicinity (within 10 km range) (DBCA, 2020b). Habitat within the application area is suitable for the majority of these species. As a result, the presence of the priority flora species within the application area cannot be discounted. DBCA (2020a) noted that while it may be difficult to detect perennial species within one year of a wildfire, it would still be possible to detect annual species in Spring 2020. As such, a flora management condition requiring a pre-clearance survey is recommended.

The application area is located within the boundary of the Priority Ecological Community (PEC) 'Ironcap Hills Vegetation Complexes' (Botanica Consulting, 2020; GIS Database). The PEC includes vegetation on Mt Holland, Middle Ironcap Hill, Northern Ironcap Hill, Southern Ironcap Hill, Digger Rock and Hatter Hill (DEC, 2010). Newbey and Hnatuik (1988) (cited in Botanica Consulting, 2020) noted that species composition of the three Ironcap hills varied from one another and that flora of these ironstones differ widely from the nearest other banded ironstone formations, including the nearby Parker Range. According to DBCA (2020a), the vegetation types identified within the application area may be representative of the Ironcap Vegetation Complexes. However, given the proposed clearing represents a maximum impact of 0.15% on the total area of the PEC, it is unlikely its conservation status will be significantly impacted.

Based on the above, the application area is considered to comprise a high level of biological diversity. However, the amount of proposed clearing is small (5 hectares) and environmental impacts can be minimised by standard exploration rehabilitation techniques, and flora management and weed control conditions.

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

Methodology Australian Heritage Database (2020)
Botanica Consulting (2020)
CALM (2002)
DBCA (2020a)
DBCA (2020b)
DEC (2010)

GIS Database:
- IBRA Australia
- Imagery
- 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**

No formal fauna survey was undertaken in support of this clearing permit application. Botanica Consulting (2020) noted there was no evidence of Malleefowl activity within the application area and commented that as

the application area had been previously disturbed and experienced a wildfire, the vegetation remaining is of marginal quality for Malleefowl.

A desktop fauna assessment shows nine conservation significant fauna species occur within 10 kilometres of the application area (DBCA, 2020b): *Apus pacificus* (IA) (Fork tailed Swift), *Calidris acuminata* (IA) (Sharp tailed Sandpiper), *Calyptorhynchus latirostris* (T) (Carnaby's Cockatoo), *Dasyurus geoffroii* (T) (Chuditch), *Falco peregrinus* (S) (Peregrine Falcon), *Leipoa ocellata* (T) (Malleefowl), *Notamacropus Irma* (P4) (Western Brush Wallaby), *Paroplocephalus atriceps* (P3) (Lake Cronin Snake) and *Platycercus icterotis* subsp. *xanthogenys* (P4) (Western Rosella inland) (DBCA, 2020b).

It is unlikely that the application area is necessary for the on-going maintenance of any significant fauna habitat. It is likely that equal or higher quality vegetation and fauna habitats exist throughout the surrounding area.

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

Methodology Botanica Consulting (2020)
DBCA (2020b)

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

A flora survey of the application area did not record any species of Threatened flora (Botanica Consulting, 2020). However, the recent wildfire and suboptimal survey timing is likely to have hampered the ability to detect the full suite of flora species typically present in the area. A desktop assessment shows that there are two known records of Threatened flora in the nearby vicinity (within 10 km range): *Eucalyptus steedmanii* and *Paragoodia crenulata* (DBCA, 2020b). Habitat within the application area is suitable for both species. As a result, the presence of these Threatened species cannot be discounted.

DBCA (2020a) advises that *Eucalyptus steedmanii* is known from 10 populations, with a total of 17,559 plants. However, 65% of the known plants are associated with just one population and plant numbers have not been recorded at many populations. The closest record for this species is approximately 4km to the west of the application area and it has a restricted area of occurrence of around 33km north south by 22km east west. The habitat for this species can be described generally as open mallee woodlands on gravelly loams over ironstone. This species is expected to recover well from fire. It has also been noted to be similar in appearance to *Eucalyptus eremophila* which was recorded in the flora survey completed for the application area (DBCA, 2020a).

Paragoodia crenulata is known from 2 populations with around 3,669 plants. This species is highly restricted and is known to occur over a 2km² range. This annual herb has been recorded in association with a variety of vegetation communities, including low open woodland and open herb lands. Two of the specimens submitted to the Western Australian Herbarium were collected within two years of fire (DBCA, 2020a).

DBCA (2020a) noted that while it may be difficult to detect perennial species within one year of a wildfire, it would be possible to detect annual species such as *Paragoodia crenulata* and species which recover well from fire, such as *Eucalyptus steedmanii*. Based on the advice from DBCA (2020a), it is possible that both *Eucalyptus steedmanii* and *Paragoodia crenulata* are present within the application area. As such, a flora management condition requiring a pre-clearance survey (and avoidance if detected) is recommended.

Even though Threatened flora species may be present within the application area, the vegetation associations within the application area are common and widespread within the region (Botanica Consulting, 2020; GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened (rare) flora.

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

Methodology Botanica Consulting (2020)
DBCA (2020a)
DBCA (2020b)

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 vegetation types associated with TECs (Botanica Consulting, 2020).

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

Methodology Botanica Consulting (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: Forrestania – medium woodland, salmon gum and morrel (GIS Database). Approximately 74% and 93% of the pre-European extent of this vegetation association remains uncleared at the state level and bioregional level, respectively (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	12,912,204.35	12,648,491.39	~97.96	Least Concern	~16.39
Beard vegetation associations – WA					
511	700,692.60	520,615.26	~74.30	Least Concern	~15.37
Beard vegetation associations – Coolgardie Bioregion					
511	464,423.62	435,177.21	~93.70	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 likely to be at variance to this Principle

There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database).

There is a non-perennial lake present within the northern section of application area that is likely to only contain water after heavy rainfall events (GIS Database). However, a vegetation survey of the application area by

Botanica Consulting did not identify any vegetation growing in, or in association with, a watercourse or wetland (Botanica Consulting, 2020).

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

Methodology Botanica Consulting (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 may be at variance to this Principle

The application area lies within the Greenmount and Cheriton land systems (GIS Database; DPIRD, 2020). 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 Greenmount land system is described as rounded low greenstone hills and rolling rises supporting Eucalypt woodlands with non-halophytic understoreys and Allocasuarina thickets (DPIRD, 2020).

The Cheriton land system consists of occluded, north oriented trunk valleys with sluggish drainage forming Playa plains consisting of saline pans with eolian sand sheets supporting Mallee woodlands and Melaleuca thickets (DPIRD, 2020).

These land systems are not generally susceptible to wind erosion, however are highly susceptible to water erosion if vegetation cover and surface mantle are removed (DPIRD, 2020). According to DPIRD (2020), water erosion risk is likely to be high to very high if, during the clearing operations, the surface mantle is removed and the natural path of overland flow is disturbed and becomes concentrated along tracks or track margins by wind rows. Soil compaction along vehicle tracks will also concentrate overland flow and increase the water erosion hazard (DPIRD, 2020). Even a minor surface disturbance can significantly and detrimentally impact overland flow and exacerbate water erosion (DPIRD, 2020).

The proposed clearing of up to 5 hectares of native vegetation within a boundary of approximately 45 hectares, for the purpose of mineral exploration may cause appreciable land degradation. Based on the above, the proposed clearing may be at variance to this Principle. However, this risk can be adequately managed under the *Mining Act 1978*, through standard mineral exploration rehabilitation conditions.

Methodology DPIRD (2020)

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 occurs within an Environmentally Sensitive Area (ESA) (Register of National Estate), the Lake Cronin Area (GIS Database). At its closest point, the application area is approximately 5 kilometres south of the Lake Cronin Nature Reserve boundary (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 5 hectares of vegetation at a distance of approximately 5 kilometres or greater from the reserve will not significantly affect ecological linkages to the reserve.

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

Methodology Australian Heritage Database (2020)

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). 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 quality.

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 350 millimetres per year (BOM, 2020). Rainfall is usually experienced during winter months and it is likely that during times of intense rainfall there may be some localised flooding in adjacent areas (CALM, 2002; GIS Database).

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 (2020)
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 4 May 2020 by the Department of Mines, Industry Regulation and Safety (DMIRS), inviting submissions from the public. One submission was received raising matters pertaining to the Local Planning Scheme and the non-perennial lake within the application area. Potential impacts of the proposed clearing to the non-perennial lake have been addressed under Principle (f). Planning requirements will be managed under the *Mining Act 1978*.

There is one native title claim (WC2000/007) 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.

Methodology DPLH (2020)

4. References

- 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 (Accessed 28 April 2020).
- BoM (2020) Bureau of Meteorology Website – Climate Data Online, Holt Rock Station. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 15 May 2020).
- Botanica Consulting (2020) Flora and Vegetation Survey of Crossroads Exploration Program. Unpublished report prepared by Botanica Consulting for Forrestania Pty Ltd, January 2020.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DBCA (2020a) Advice received in relation to Clearing Permit Application CPS 8822/1. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, June 2020.
- DBCA (2020b) NatureMap: Mapping Western Australia's Biodiversity. Department Biodiversity, Conservation and Attractions. <https://naturemap.dbca.wa.gov.au/> (Accessed 28 April 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.
- DPLH (2020) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 12 August 2020).
- DPIRD (2020) Advice received in relation to Clearing Permit Application CPS 8822/1. Commissioner of Soil and Land Conservation, Department of Primary Industries and Regional Development, Western Australia, May 2020.
- 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.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DoEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DoEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DoEE)
DWER	Department of Water and Environmental Regulation, Western Australia
EPA	Environmental Protection Authority, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , 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.