



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 9098/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: RCMA Australia Pty Ltd

1.3. Property details

Property: Petroleum Production Licence L14
Local Government Area: Shire of Irwin
Colloquial name: Jingemia Production Facility and Laydown Expansion

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.6		Mechanical Removal	Petroleum production and associated activities

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	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation association:</p> <p>432: Shrublands; <i>Acacia rostellifera</i> & <i>Melaleuca cardiophylla</i> thicket (GIS Database).</p> <p>Astron Environmental Services (Astron) completed a flora and vegetation survey over the application area in December 2020. The following vegetation associations were recorded within the application area (Astron, 2021):</p> <p>P1: <i>Eucalyptus oraria</i> low open forest over <i>Melaleuca cardiophylla</i> and <i>M. huegelii</i> subsp. <i>huegelii</i> tall open shrubland.</p> <p>P2: <i>Acacia rostellifera</i> scattered tall shrubs over <i>Melaleuca systema</i> shrubland over <i>Olearia axillaris</i> scattered low shrubs.</p> <p>P3: <i>Melaleuca huegelii</i> subsp. <i>huegelii</i> (<i>Acacia rostellifera</i>) tall shrubland over <i>Olearia axillaris</i> scattered shrubs over <i>Lepidosperma calcicola</i> very open sedgeland.</p>
Clearing Description	<p>Jingemia Production Facility and Laydown Expansion.</p> <p>RCMA Australia Pty Ltd proposes to clear up to 4.6 hectares of native vegetation within a boundary of approximately 4.829 hectares, for the purpose of petroleum production and associated activities. The project is located approximately 11 kilometres south-east of Dongara, within the Shire of Irwin.</p>
Vegetation Condition	<p>Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).</p> <p>To</p> <p>Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).</p>
Comment	<p>The proposed clearing is for RCMA Australia Pty Ltd (RCMA) to expand the laydown yard at the Jingemia Production Facility, in order to conduct ongoing operational, inspection, maintenance and repair work at the facility, including establishing laydown space for future well intervention activities.</p> <p>The vegetation condition was derived from a flora and vegetation survey conducted by Astron (2021).</p>

3. Assessment of application against Clearing Principles

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

Comments

Proposal is not likely to be at variance to this Principle

The clearing permit application area is located within the Lesueur Sandplain subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Geraldton Sandplains Bioregion (GIS Database). This subregion comprises coastal aeolian and limestones, Jurassic siltstones and often heavily lateritised sandstones of central Perth Basin (CALM, 2002). Alluvials are associated with drainage systems. There are extensive yellow sandplains in south-eastern parts, especially where the subregion overlaps the western edge of the Pilbara Craton (CALM, 2002). Shrub-heaths rich in endemics occur on a mosaic of lateritic mesas, sandplains, coastal sands and limestones, with heath on lateritised sandplains along the subregions north-eastern margins (CALM, 2002).

A reconnaissance flora and vegetation survey, basic fauna and targeted black cockatoo surveys were conducted over the application area on 14 December 2020 (Astron, 2021). A total of 22 confirmed flora species, representing 14 families and 17 genera, were identified within the application area as part of the site survey (Astron, 2021). This floristic richness is considered low for the bioregion (Astron, 2021).

The survey was conducted just outside the recommended flora survey season for the Botanical Province, and as such annual and ephemeral species were probably underrepresented (Astron, 2021). However, no listed Threatened or Priority annual or short lived perennial species were considered likely to occur within the application area's habitat type, and as such survey timing is not considered a limiting factor (Astron, 2021).

No Threatened or Priority Ecological Communities, Threatened or Priority flora or vegetation associations of restricted distribution have been recorded within the application area (GIS Database), or identified during the flora and vegetation survey (Astron, 2021).

Desktop assessments identified 18 flora species of conservation significance having been previously recorded within a 10 kilometre radius of the application area (Astron, 2021). Of these, two P3 and two P4 flora species were considered likely to occur within the survey area, whilst two priority flora were considered to have some potential to occur, based on habitat preference (Astron, 2021). None of these species were identified within the application area as part of the site survey, which included targeted searches in context of habitat preferences (Astron, 2021; DBCA, 2007-).

Desktop assessments also identified two Threatened flora species as having potential to occur in the survey area: *Conostylis dielsii* subsp. *teres* and *Conostylis micrantha* (Astron, 2021; DAWE, 2021; DBCA, 2007-; Western Australian Herbarium, 1998-). Following the field survey targeting habitats and landforms present, neither of these species were considered likely to occur in the application area (Astron, 2021). The closest records of both *Conostylis* species are 18 kilometres north-west of the survey area (Western Australian Herbarium, 1998-). Although neither species would have been flowering at the time of survey, they are perennial rhizomatous species that could be identified (Astron, 2021).

Thirteen weed species have been previously recorded within 10 kilometres of the application area, although none were identified through the field survey (DAWE, 2021; Astron, 2021). Furthermore, the application area falls within an area of the State considered to be at risk to *Phytophthora* Dieback (Project Dieback, 2014). Weeds and dieback have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts on biological diversity from weeds and dieback may be minimised by the implementation of a weed and dieback management condition.

A search of available database indicates that 170 vertebrate fauna have been previously recorded within 10 kilometres of the survey area, including five amphibians, 16 reptiles, 141 birds (including five introduced species) and eight mammals (including six introduced species) (Astron, 2021; DBCA, 2007-). No significant or restricted fauna habitats were recorded within the application area during the fauna habitat assessment (Astron, 2021).

The vegetation associations, fauna habitats and landform types present within the application area, are well represented in surrounding areas (Astron, 2021; GIS Database). The application area is unlikely to represent an area of higher biodiversity than surrounding areas, in either a local or regional context.

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

Methodology

Astron (2021)
DAWE (2021)
DBCA (2007-)
CALM (2002)
Project Dieback (2014)
Western Australian Herbarium (1998-)

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 fauna habitat has been recorded within the application area (Astron, 2021):

- *Eucalyptus* Woodland Sand Plain

Vegetation associated with this habitat type was considered to be in 'excellent' condition (Keighery, 1994) over a majority of the application area, however this habitat type is not considered restricted and is well represented at a local and regional level (Astron, 2021; GIS Database).

Astron (2021) recorded evidence of one species of conservation significance within the application area: the malleefowl (*Leipoa ocellata*, VU). No nest mounds or individuals were observed as part of the survey, however tracks were recorded (Astron, 2021). Eucalyptus woodlands on sandy plains is considered suitable habitat for both foraging and nesting of this species (Astron, 2021). Potential impacts of the proposed clearing to malleefowl may be minimised by the implementation of a fauna management condition requiring further searches during the breeding season and avoidance of mounds, if present.

The black-striped snake (*Neelaps calonotos*, P3) has a high likelihood of occurring within the survey area, although it was unlikely for a basic fauna survey to identify the species, due to its cryptic nature (Astron, 2021). However, the relatively small area (4.6 hectares) of proposed clearing is unlikely to significantly reduce its local habitat availability, as the species is mobile and the same habitat type spreads continuously outside of the application area (GIS Database).

Three other fauna species of conservation significance have a moderate likelihood of occurring within the survey area, based on habitat preference and known distribution records (Astron, 2021; DAWE, 2021; DBCA, 2007-): Carnaby's cockatoo (*Calyptorhynchus latirostris*, EN), peregrine falcon (*Falco peregrinus*, OS) and chuditch (*Dasyurus geoffroi fortis*, VU).

The application area was not identified as suitable breeding habitat for Carnaby's cockatoos, as no trees of suitable diameter were recorded and the survey area is located outside its known breeding range (Astron, 2021). The survey area was also considered of low foraging value, due to the presence of only one suitable plant species (*Acacia saligna*), which was not a dominant species (Astron, 2021).

The chuditch was once present across mainland Australia, however it is now present in approximately five per cent of its former range. Chuditch use a range of habitats including forest, mallee shrublands, woodland and desert (DEC, 2012). Most chuditch are now found in varying densities throughout the jarrah forest and south coast of Western Australia, they also occur at lower densities in the Goldfields and Wheatbelt, as well as (translocated) in Kalbarri National Park (DEC, 2012). The densest populations have been found in riparian jarrah forest (DEC, 2012). Based on the known populations of chuditch and their preferred habitat, the relatively small application area is unlikely to provide habitat for the species (Astron, 2021).

The peregrine falcon is a widespread species with a broad distribution range (DAWE, 2021; DBCA, 2007-). Individuals of this species are likely to be occasional transient visitors to the application area for foraging purposes, and not specifically dependent on it for habitat (Astron, 2021).

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

Methodology Astron (2021)
DAWE (2021)
DBCA (2007-)
DEC (2012)

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 (Astron, 2021).

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

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

Methodology Astron (2021)

GIS Database:

- Pre-European Vegetation
- Threatened and Priority Flora

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

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

There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (GIS Database).

A flora and vegetation survey of the application area did not identify any TECs (Astron, 2021).

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

Methodology Astron (2021)

GIS Database:

- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments Proposal is not at variance to this Principle

The application area falls within the Geraldton Sandplains Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 44% of the pre-European vegetation still exists in the IBRA Geraldton Sandplains Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation association 432: Shrublands; *Acacia rostellifera* & *Melaleuca cardiophylla* thicket (GIS Database). Approximately 88% of the pre-European extent of this vegetation association remains uncleared at the state level, and approximately 90% at the bioregional level (Government of Western Australia, 2019).

The dominant landuse of the Geraldton Sandplains bioregion is agriculture and a substantial part (approximately 46%) of the bioregion has been cleared for agricultural and community purposes (CALM, 2002). However the sand dune areas within the region (where the application area is located) are less suitable for agriculture and hence they have retained a higher level of vegetation (GIS Database). From a local context, a review of aerial imagery indicates that there are areas of extensive vegetation located around the application area, and the vegetation proposed to be cleared does not appear to form a significant linkage between areas of vegetation (GIS Database).

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 – Geraldton Sandplains	3,136,037	1,404,424	~44	Depleted	~18
Beard vegetation associations – WA					
432	5,732	5,101	~88	Least Concern	~52
Beard vegetation associations – Geraldton Sandplains Bioregion					
432	5,636	5,101	~90	Least Concern	~53

* 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 CALM (2002)
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 application area (Astron, 2021; GIS Database). The field survey did not identify any riparian vegetation occurring with the application area (Astron, 2021).

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

Methodology Astron (2021)

GIS Database:
- Hydrography, Lakes
- Hydrography, linear

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal may be at variance to this Principle

The soil within the application area has been mapped as B24 (GIS Database), which Northcote et al. (1960 – 1968) describe as: Undulating dune landscape underlain by aeolianite which is frequently exposed; small swales of estuarine deposits are included: chief soils are siliceous sands with smaller areas of brown sands and leached sands in the wetter sites. These types of soils are susceptible to wind erosion if vegetation cover is removed (Astron, 2021; RCMA, 2020).

An assessment of available aerial imagery shows that a large extent of vegetation in good condition remains around the application area and the increased risk associated with wind erosion is unlikely to be significant, given the relatively small size of the application area (GIS Database).

Potential land degradation as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

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

Methodology Astron (2021)
Northcote et al. (1960 – 1968)
RCMA (2020)

GIS Database:
- Landsystem Rangelands
- Soils, Statewide
- Imagery

(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 Beekeepers Nature Reserve, located approximately 400 metres west of the application area, and the Yardanogo Nature Reserve, located approximately 5.5 kilometres east of the application area (GIS Database).

The proposed clearing of approximately 4.6 hectares for the purpose of expanding a laydown yard for an established petroleum facility 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).

The proposed clearing is unlikely to result in significant changes to surface water flows of the area. 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 classified as dry Mediterranean with cool wet winters and hot dry summers. The average annual rainfall is ~460mm, with the majority of rainfall occurring during the winter months (BoM, 2021). Summer is typically dry with scattered and irregular thunderstorms which approach from the north-west (CALM, 2002).

There are no permanent water courses or waterbodies within the application area and the contour is flat (GIS Database). Drainage of stormwater is local, with rapid infiltration through the sandy soil and open-structured underlying calcarenite (Astron, 2021; RCMA, 2020). Hence, 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 Astron (2021)
BoM (2021)
CALM (2002)
RCMA (2020)

GIS Database:
- Hydrographic Catchments - Catchments
- Hydrography, linear
- Topographic Contours

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

Comments

The clearing permit application was advertised on 7 December 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 (WC2019/008) over the area under application (DPLH, 2021). This claim has been determined by the Federal Court on behalf of the claimant group (WAD345/2019). However, the petroleum 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

- Astron (2021) Reconnaissance Flora, Vegetation and Basic Fauna Survey - Facility Extension December 2020. Report prepared for Refine Energy Pty Ltd, by Astron Environmental Services, February 2021.
- BoM (2021) Bureau of Meteorology Website – Climate Data Online, Port Denison weather station. Bureau of Meteorology. <https://www.bom.gov.au/climate/data/> (Accessed 13 April 2021).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DAWE (2021) EPBC Act Protected Matters Search Tool. Department of Agriculture, Water and the Environment. <https://www.environment.gov.au/epbc/protected-matters-search-tool> (Accessed 12 April 2021).
- DBCA (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Biodiversity, Conservation and Attractions. <https://naturemap.dbca.wa.gov.au/> (Accessed 12 April 2021).
- DEC (2012) Chuditch (*Dasyurus geoffroii*) Recovery. Plan. Wildlife Management Program No. 54. Department of Environment and Conservation, 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 13 April 2021).
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68). 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- RCMA (2020) Jingemina Production Facility Extension Clearing Permit Application, Revision 1. RCMA Australia Pty Ltd, November 2020.
- Project Dieback (2014) State Phytophthora Dieback Management and Investment Framework., V.1 Western Australian State Natural Resource Management Strategic Program, July 2014.
- Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <https://florabase.dpaw.wa.gov.au/> (Accessed 20/04/2021).

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
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)
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 (now known as Threatened Flora)
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.