

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 9203/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Northern Star Resources Limited

1.3. Property details

Property: Miscellaneous Licence 53/221
Local Government Area: Shire of Wiluna
Colloquial name: Jundee/Julius Haul Road Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
150		Mechanical Removal	Haul Road

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 22 October 2021

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description The vegetation of the application area is broadly mapped as the following Beard vegetation associations:
18: Low woodland; mulga (*Acacia aneura*);
125: Bare areas; salt lakes; and
560: Mosaic: Shrublands; bowgada scrub / Succulent steppe; samphire (GIS Database).

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

Closed Depression

- CD-CSSSF1: Low samphire shrubland of *Tecticornia indica* subsp. *bidens* / *Tecticornia* sp. Dennys Crossing (K.A. Shepherd & J. English KS522) in playa;
- CD-CSSSF2: Mid heathland of *Cratystylis subspinescens* over low open chenopod shrubland of *Atriplex vesicaria* and open forland of *Frankenia* spp. on playa edge;

Clay-Loam Plain

- CLP-AFW1: Low woodland of *Acacia incurvaneura* over low shrubland of *Eremophila forrestii* / *E. margarethae* and low tussock grassland of *Eragrostis eriopoda* on clay-loam plain;

Open Depression

- OD-AFW1: Low open forest of *Acacia incurvaneura* over tall open shrubland of *Acacia ramulosa* var. *ramulosa* and low tussock grassland of *Eragrostis kennedyae* in open depression;

Quartz Rocky Plain

- QRP-AOW1: Low open woodland of *Acacia incurvaneura* / *Hakea lorea* over mid open shrubland of *Eremophila fraseri* and low shrubland of *Eremophila margarethae* on quartz-rocky plain;
- QRP-AFW1: Low woodland of *Acacia incurvaneura* over mid open shrubland of *Psydrax suaveolens* and low open tussock grassland of *Eragrostis eriopoda* on quartz-rocky plain;

Sand Dune

- SD-AFW1: Low woodland of *Acacia caesaneura* / *A. incurvaneura* over tall open shrubland of *Melaleuca interioris* and low open hummock grassland of *Triodia desertorum* / low open tussock grassland of *Eragrostis eriopoda* on sand dune;
- SD-MFW1: Tall shrubland of *Melaleuca interioris* over low open hummock grassland of *Triodia desertorum* / low open tussock grassland of *Eragrostis eriopoda* on sand dune;

Sand-Loam Plain

- SLP-AFW1: Low woodland of *Acacia caesaneura* / *A. incurvaneura* over mid open shrubland of *Eremophila forrestii* and low hummock grassland of *Triodia basedowii* on sand-loam plain;

- SLP-AFW/MWS1: Mid open mallee shrubland of *Eucalyptus youngiana* / Low woodland of *Acacia caesaneura* / *A. incurvaneura* over mid open shrubland of *Eremophila forrestii* and low hummock grassland of *Triodia basedowii* on sand-loam plain;

Sandplain

- SP-MWS1: Mid open mallee shrubland of *Eucalyptus youngiana* over tall shrubland of *Acacia caesaneura* / *Melaleuca eleuterostachya* and closed tussock grassland of *Triodia basedowii* on sandplain;

Playa

- Bare playa.

Clearing Description	Jundee/Julius Haul Road Project. Northern Star Resources Limited proposes to clear up to 150 hectares of native vegetation within a boundary of approximately 504.366 hectares, for the purpose of constructing a haul road. The project is located approximately 56 kilometres east of Wiluna, within the Shire of Wiluna.
Vegetation Condition	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994); To Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).
Comment	The vegetation condition was derived from a vegetation survey conducted by Botanica Consulting Pty Ltd (Botanica, 2020).

3. Assessment of application against Clearing Principles

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

Comments	<p>Proposal is not likely to be at variance to this Principle</p> <p>The clearing permit application area is located within the Eastern Murchison (MUR1) subregion of the Murchison Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by its internal drainage, and extensive areas of elevated red desert sandplains with minimal dune development. Salt lake systems are associated with the occluded Paleodrainage system. Broad plains of red-brown soils and breakaway complexes as well as red sandplains occur. Vegetation is dominated by Mulga Woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and <i>Tecticornia</i> shrublands (CALM, 2002).</p> <p>A flora and vegetation survey was conducted over the application area by Botanica Consulting Pty Ltd during March, 2020. The entire length of Miscellaneous Licence L 53/221 was traversed during the survey, with the survey targeting the centreline of the tenure which is the likely location of the proposed clearing activities (Botanica, 2020). Vegetation was assessed using a series of relevés.</p> <p>The vegetation types present within the application area are widespread or common habitats, with no hillslopes, rock outcrops, laterite ridges or breakaways, perennial wetlands or watercourses present (Botanica, 2020).</p> <p>No Threatened or Priority flora species were identified within the application area (Botanica, 2020) and no Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) are known within the application area (Botanica, 2020; GIS Database). Available databases show that no TECs or PECs occur within a 50 kilometre radius of the application area (GIS Database).</p> <p>The broad scale terrestrial fauna habitats within the survey area have been identified as comprising a mosaic of clay-loam plains, closed and open depressions, quartz-rocky plains, sandplains and sand-loam plains. These habitat types are common and widespread in both a local and regional context (Botanica, 2020).</p> <p>One introduced flora species was identified during the survey: <i>Tribulus terrestris</i> (Caltrop). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.</p> <p>The vegetation associations, fauna habitats and landform types present within the application area, are well represented in surrounding areas (Botanica, 2020; GIS Database). The application area is unlikely to represent an area of higher biodiversity than surrounding areas, in either a local or regional context.</p> <p>Based on the above, the proposed clearing is not likely to be at variance to this Principle.</p>
-----------------	--

Methodology	Botanica (2020) CALM (2002)
--------------------	--------------------------------

GIS Database:

- IBRA Australia
- Pre-European Vegetation
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers
- Threatened and Priority Flora
- Threatened Fauna

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.

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

A reconnaissance fauna survey was conducted over the application area by Botanica Consulting Pty Ltd during March, 2020. The following eight fauna habitats have been recorded within the application area (Botanica, 2020):

- Closed Depression;
- Clay-Loam Plain;
- Open Depression;
- Quartz-Rocky Plain;
- Sand Dune;
- Sand-Loam Plain;
- Sandplain; and
- Playa.

These habitat types are common and widespread in both a local and regional context (Botanica, 2020).

No conservation significant fauna surveys were identified during the fauna survey (Botanica, 2020). Although no fauna species of conservation significance were recorded within the application area during the reconnaissance fauna survey, the habitats present have the potential to be utilised by the Peregrine Falcon (*Falco peregrinus* – OS) and the Brush-tailed mulgara (*Dasyercus blythi* – P4).

The Peregrine Falcon may potentially utilise some sections of the application area as part of a much larger home range, though records in this area are rare and while listed as a potential species, it can be expected to occur only very occasionally (Botanica, 2020). The application area is unlikely to support breeding habitat for the Peregrine Falcon (Botanica, 2020). The proposal will result in the modification of some potential foraging habitat, however due to the highly mobile nature of the peregrine falcon potential impacts will be minimal.

The Brush-tailed Mulgara has the potential to utilise the application area, however Botanica (2020) states that the habitat present in the majority of the application area is unsuitable/marginal. Potential impacts to the habitat of Brush-tailed Mulgara appear to be minimal, as there is extensive habitat remaining in both the local and regional areas (GIS Database).

The fauna habitats present within the application area appear to be widespread and common in surrounding areas. There are no habitat types present within the application area that could be considered necessary for the continued survival of local fauna species, including species of conservation significance, and the proposed clearing is not anticipated to impact on the conservation status of any of the above mentioned fauna species known from the area (Botanica, 2020).

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

Methodology Botanica (2020)

GIS Database:

- Imagery
- Pre-European Vegetation
- Threatened Fauna

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.

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

There are no known records of Threatened flora within the application area (GIS Database). A flora survey of the application area did not record any species of Threatened flora (Botanica, 2020).

The vegetation associations within the application area are common and widespread within the region (Botanica, 2020; 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 Botanica (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 (Botanica, 2020).

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

Methodology Botanica (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 Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Murchison Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations 18: Low woodland; mulga (*Acacia aneura*); 125: Bare areas; salt lakes; and 560: Mosaic: Shrublands; bowgada scrub / Succulent steppe; samphire (GIS Database). (GIS Database). Approximately 90% or above of the pre-European extent of each of these vegetation associations remains at the state and bioregional level (Government of Western Australia, 2019). Therefore, the application area does not represent a significant remnant of native vegetation in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA managed lands
IBRA Bioregion – Murchison	28,120,587	28,044,823	~99	Least Concern	7.77
Beard vegetation associations – WA					
18	19,892,306	19,843,148	~99	Least Concern	6.62
125	3,485,785	3,146,487	~90	Least Concern	7.62
560	84,725	84,725	~100	Least Concern	NA
Beard vegetation associations – Murchison Bioregion					
18	12,403,172	12,363,252	~99	Least Concern	4.96
125	711,484	710,255	~99	Least Concern	7.2
560	84,725	84,725	~100	Least Concern	NA

* Government of Western Australia (2019)

** Department of Natural Resources and Environment (2002)

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

Methodology Department of Natural Resources and Environment (2002)
Government of Western Australia (2019)

GIS Database:

- IBRA Australia
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is at variance to this Principle

There are no permanent watercourses or wetlands within the area proposed to clear (Botanica, 2020; GIS Database). Numerous seasonal creek lines pass through the application area (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall (BoM, 2021; Botanica, 2020). None of the vegetation types described by Botanica (2020) are considered to be riparian vegetation.

Based on the above, the proposed clearing is at variance to this Principle. Potential impacts to vegetation growing in association with watercourses may be minimised by the implementation of a watercourse management condition.

Methodology BoM (2021)
Botanica (2020)

GIS Database:
- Hydrography, Lakes
- Hydrography, linear

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

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

The application area lies within the Carnegie, Cunyu, Jundee, Violet and Yanganoo land systems (GIS Database). These land systems have been mapped and described in technical bulletins produced by the former Department of Agriculture (now the Department of Primary Industries and Regional Development).

The Carnegie land system is described as 'Salt lakes with extensively fringing saline plains, dunes and sandy banks, supporting low halophytic shrublands and scattered tall acacia shrublands; lake beds are highly saline; gypsiferous and mainly unvegetated.' This land system is not generally susceptible to erosion (Pringle et al., 1994).

The Cunyu land system is described as 'Calcrete platforms and intervening alluvial floors and minor areas of alluvial plains, including channels with acacia shrublands and minor halophytic shrublands.' This land system is not generally susceptible to erosion (Pringle et al., 1994).

The Jundee land system is described as 'Hardpan plains with ironstone gravel mantles and occasional sandy banks supporting mulga shrublands.' This land system is not generally susceptible to erosion (Pringle et al., 1994).

The Violet land system consists of 'Gently undulating gravelly plains on greenstone, laterite and hardpan, with low stony rises and minor saline plains; supporting groved mulga and bowgada shrublands and patchy halophytic shrublands.' This land system may be susceptible to erosion if vegetation cover is removed (Pringle et al., 1994).

The Yanganoo land system is described as 'Almost flat hardpan wash plains, with or without small wanderrie banks and weak groving; supporting mulga shrublands and wanderrie grasses on banks.' This land system is not generally susceptible to erosion (Pringle et al., 1994).

Given the scale of the proposed clearing, localised erosion may occur if cleared areas are left open for extended periods. Potential land degradation issues that may result from the proposed clearing may be minimised by the implementation of a staged clearing condition.

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

Methodology Pringle et al. (1994)

GIS Database:
- Landsystem Rangelands
- Soils, Statewide

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

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

There are no conservation areas in the vicinity of the application area. The nearest DBCA (formerly DPaW) managed land is the former Lorna Glen Pastoral Lease which is located approximately 38 kilometres north-east of the application area (GIS Database). The proposed clearing is unlikely to impact on the environmental values of any conservation area.

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

Methodology GIS Database:
- DPaW Tenure

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

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

There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). 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.

Groundwater salinity within the application ranges from 1,000 – 7,000 milligrams/Litre Total Dissolved Solids (TDS) and is considered brackish to slightly saline (GIS Database). Given existing groundwater conditions, and the large amount of native vegetation remaining in the local area, the proposed clearing is unlikely to result in a deterioration of the groundwater quality.

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, with a low average rainfall of approximately 260.4 millimetres per year (BoM, 2021). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (BoM, 2021).

There are no permanent water courses or waterbodies within the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.

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

Methodology BoM (2021)

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 8 March 2021 by the Department of Mines, Industry Regulation and Safety (DMIRS), inviting submissions from the public. No submissions were received in relation to this application.

There are two native title claims over the area under application (DPLH, 2021). These claims have been registered with the National Native Title Tribunal on behalf of the claimant groups. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2021). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

Methodology DPLH (2021)

4. References

- BoM (2021) Bureau of Meteorology Website – Climate Data Online, Wiluna. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 18 October 2021).
- Botanica (2020) Reconnaissance Flora/ Vegetation & Fauna Survey Julius Haul Road alternative locations. Unpublished report prepared by Botanica Consulting Pty Ltd for Northern Star Resources Limited, April 2020.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DPLH (2021) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 18 October 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.
- Pringle, H.J.R., Van Vreeswyk, A.M.E and Gilligan, S.A (1994). An inventory and condition survey of rangelands in the north-eastern Goldfields, Western Australia. Department of Agriculture, South 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
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:

{DBCAs (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.