Government of Western Australia
Department of Mines, Industry Regulation and Safety

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8763/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **MGK Resources Pty Ltd**

1.3. Property details

Property: Mining Lease 29/421
Miscellaneous Licence 29/139
Local Government Area: Shire of Menzies
Colloquial name: Tim's Find

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
424.9		Mechanical Removal	Mineral Production and Associated Activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 13 February 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/s:
18: Low woodland; mulga (*Acacia aneura*); and
39: Shrublands; mulga scrub (GIS Database).

A flora and vegetation survey was conducted over the application area and surrounding areas by Native Vegetation Solutions (NVS) during October, 2019. The following nine vegetation associations were recorded within the application area and surrounds, with eight recorded within the application area (NVS, 2019):

- **Mulga shrubland -** Open shrub mallee of *Acacia aneura, Acacia mulganeura* and *Acacia caesaneura* over *Acacia tetragonophylla, Dodonaea rigida, Cryptandra distigma* and *Eremophila latrobei* subsp. *latrobei* over *Cryptandra connata, Eremophila homoplastica, Eremophila metallicorum, Ptilotus obovatus* and *Sida* sp. dark green fruits (S. van Leeuwen 2260).

- ***Casuarina pauper* over *Acacia oswaldii* over *Maireana sedifolia* -** Low woodland of *Casuarina pauper, Acacia caesaneura* and *Acacia oswaldii* over *Dodonaea lobulata, Eremophila oldfieldii* subsp. *angustifolia* and *Maireana sedifolia* over *Ptilotus obovatus, Solanum lasiophyllum* and *Senna artemisioides* subsp. *filifolia.*

- **Mulga over rocky ironstone outcrop -** Open shrub mallee of *Acacia caesaneura, Acacia quadrimarginea, Acacia grasbyi, Acacia ramulosa* var. *ramulosa* and *Acacia aneura* over *Dodonaea rigida, Dodonaea viscosa* subsp. *spatulata, Philotheca brucei* subsp. *brucei* and *Hybanthus floribundus* subsp. *curvifolius* over *Eremophila metallicorum, Olearia stuartii, Ptilotus obovatus, Calytrix erosipetala* and *Atriplex bunburyana.*

- **Drainage line -** Shrub mallee of *Acacia caesaneura, Acacia aneura* with occasional *Eucalyptus lucasii* and *Eucalyptus oleosa* subsp. *oleosa* over *Acacia tetragonophylla, Santalum spicatum* and *Acacia burkittii* over *Enchylaena tomentosa* var. *tomentosa, Ptilotus obovatus, Senna artemisioides* subsp. *filifolia* and *Sida* sp. dark green fruits (S. van Leeuwen 2260).

- ***Eucalyptus oleosa* over mulga over *Eremophila pantonii* -** Tree mallee of *Eucalyptus oleosa* subsp. *oleosa* over *Acacia aneura, Acacia caesaneura, Acacia burkittii* and *Acacia pteraneura* over *Senna artemisioides* subsp. *filifolia, Ptilotus obovatus, Eremophila pantonii* and *Atriplex bunburyana.*

- **Mulga over *Eremophila forrestii* -** Scrub of *Acacia aneura* and *Acacia caesaneura* over *Eremophila forrestii* subsp. *forrestii, Dodonaea rigida* and *Philotheca brucei* subsp. *brucei* over *Olearia stuartii, Sida* sp. Excedentifolia (J.L. Egan 1925) and *Cheilanthes sieberi* subsp. *sieberi.*

- ***Eucalyptus clelandiorum* over *Eremophila pantonii* over *Ptilotus obovatus* -** Low woodland of *Eucalyptus clelandiorum* over *Eremophila pantonii, Eremophila scoparia* and *Eremophila oldfieldii* subsp. *angustifolia* over *Ptilotus obovatus, Maireana sedifolia, Acacia erinacea, Senna artemisioides*

subsp. filifolia and *Atriplex vesicaria.*

- ***Frankenia* shrubland -** Dwarf scrub of *Frankenia sessilis, Maireana georgei and Ptilotus obovatus* with occasional overstorey of *Acacia mulganeura, Acacia tetragonophylla* and *Eremophila oldfieldii* subsp. *angustifolia*.

- **Mulga over chenopod shrubland -** Open scrub of *Acacia aneura, Acacia mulganeura* and *Acacia caesaneura* over *Senna artemisioides* subsp. *filifolia* over *Maireana sedifolia, Atriplex bunburyana* and *Ptilotus obovatus*. This vegetation association was only recorded in an area adjacent to the application area and did not extend within the application area.

Clearing Description Tim's Find.
MGK Resources Pty Ltd proposes to clear up to 424.9 hectares of native vegetation within a boundary of approximately 424.9 hectares, for the purpose of mineral production and associated activities. The project is located approximately 73 kilometres north-west of Menzies, within the Shire of Menzies.

Vegetation Condition Pristine: No 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 by the assessing officer from aerial photography and a vegetation survey conducted by NVS (2019).

3. Assessment of application against Clearing Principles

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

Comments

Proposal is not likely to be at variance to this Principle

The clearing permit application area is located within the Eastern Murchison subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Murchison Bioregion (GIS Database). The Eastern Murchison subregion is characterised by: internal drainage, and extensive areas of elevated red desert sandplains with minimal dune development; broad plains with red-brown soils and breakaway complexes as well as red sandplains; and salt lake systems (CALM, 2002). Vegetation is dominated by mulga woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and *Tecticornia* shrublands (CALM, 2002).

A vegetation assessment of the application area was conducted by Goldfields Landcare Services (GLS) from 1 to 6 July 2019 and additional survey work was conducted by NVS from 14 to 15 October 2019 (GLS, 2019; NVS, 2019). The vegetation of the application area and surrounding areas was dominated by mulga shrublands and low woodlands (NVS, 2019). Vegetation types described within the application area were all represented in surrounding areas, indicating a wider distribution. No Threatened or Priority Ecological Communities were identified as potentially occurring in the application area and the field assessment of the application did not record any (NVS, 2019; GIS Database).

A total of 116 flora species from 54 genera and 31 families were recorded during the field surveys of the application area (NVS, 2019). Fifteen conservation significant flora were identified as previously being recorded within 50 kilometres of the application area, including one Threatened flora species (NVS, 2019). However, the majority of these species were determined to be unlikely to occur due to a lack of suitable habitat (NVS, 2019). Six Priority species were identified as potentially occurring due to the presence of suitable habitat within the application area (NVS, 2019). No Threatened or Priority flora species were recorded during the field surveys of the application area (GLS, 2019; NVS, 2019).

Four species of weeds; *Lactuca serriola*, *Rumex hypogaeus*, *Sisymbrium erysimoides* and *Sisymbrium irio*, were recorded during the field surveys of the application area and surrounds, however none were declared pest species or listed weeds of national significance (GLS, 2019; NVS, 2019). Weeds have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity as a result of the introduction of weeds may be minimised by the implementation of a weed management condition.

A desktop assessment identified 324 fauna species potentially occurring within the application area including 149 birds, 11 amphibians, 49 mammals and 115 reptiles (Terrestrial Ecosystems, 2019). This includes eight conservation significant fauna species: night parrot, *Pezoporus occidentalis* (Critically Endangered at State and Endangered at Federal level); malleefowl, *Leipoa ocellata* (Vulnerable both at State and Federal level); princess parrot, *Polytelis alexandrae* (P4 at State and Vulnerable at Federal level); oriental plover, *Charadrius veredus* (MI); fork-tailed swift, *Apus pacificus* (MI); grey wagtail, *Motacilla cinerea* (MI); yellow wagtail, *Motacilla flava* (MI); and peregrine falcon, *Falco peregrinus* (OS). Of the conservation significant species potentially present, malleefowl were the only species identified as potentially being impacted by the proposed clearing as all other species are highly mobile or were unlikely to be present due to a lack of suitable habitat (Terrestrial Ecosystems, 2019). However, although malleefowl have been recorded within the region, there have been no records within the application area and the proposed clearing is unlikely to significantly impact

the species (Terrestrial Ecosystems, 2019).

The vegetation associations, fauna habitats and landform types present within the application area, are well represented in surrounding areas (NVS, 2019; 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 CALM (2002)
GLS (2019)
NVS (2019)
Terrestrial Ecosystems (2019)

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

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

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

The following three fauna habitats have been recorded within the application area (Terrestrial Ecosystems, 2019):

- Drainage line;
- Eucalypt mallee woodland; and
- Open mulga woodland over shrubs/grasses.

The fauna habitat types present within the application area are well represented in adjacent areas and are unlikely to represent significant habitat on a local or regional scale (Terrestrial Ecosystems, 2019; GIS Database).

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

Methodology Terrestrial Ecosystems (2019)

GIS Database:
- Imagery
- Pre-European Vegetation
- Threatened Fauna

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

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

There are no known records of Threatened flora within the application area (GIS Database). Flora surveys of the application area did not record any species of Threatened flora (NVS, 2019).

The vegetation associations within the application area are common and widespread within the region (NVS, 2019; 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 NVS (2019)

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 (NVS, 2019).

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

Methodology

NVS (2019)

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*) and 39: shrublands; mulga scrub (GIS Database). Approximately 99% of the pre-European extent of each of these vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2019).

Therefore, the application area does not represent a significant remnant of native vegetation in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA managed lands
IBRA Bioregion – Murchison	28,120,586	28,044,823	~99	Least Concern	~7
Beard vegetation associations – WA					
18	19,892,306	19,843,148	~99	Least Concern	~6
39	6,613,567	6,602,578	~99	Least Concern	~12
Beard vegetation associations – Murchison Bioregion					
18	12,403,172	12,363,252	~99	Least Concern	~4
39	1,148,400	1,138,064	~99	Least Concern	~3

* 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 (NVS, 2019; GIS Database). A number of seasonal creek line passes 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. One vegetation association described within the application area “Drainage Line” was recorded in association with

seasonal drainage lines (NVS, 2019).

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

Methodology NVS (2019)

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 Bevon, Brooking, Graves, Nuber and Rainbow 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 Bevon land system is described as irregular low ironstone hills with stony lower slopes supporting mulga shrublands. Minor areas with texture contrast soils on breakaway footslopes and narrow drainage tracts of this land system are susceptible to soil erosion, particularly if perennial shrub cover is substantially reduced or the soil surface is disturbed (Pringle et al., 1994).

The Brooking land system consists of prominent ridges of banded iron formation, supporting mulga shrublands; occasional minor halophytic communities in the south-east. This land system is generally not susceptible to erosion due to the stone mantles providing effective protection against soil erosion, however disturbance or removal of stone mantles may initiate soil erosion (Pringle et al., 1994).

The Graves land system is described as basalt and greenstone rises and low hills, supporting Eucalypt woodlands with prominent saltbush and bluebush understoreys. The Alluvial plains of this land system are susceptible to water erosion where perennial shrub cover is substantially reduced or the soil surface is disturbed (Pringle et al., 1994).

The Nubev land system consists of gently undulating stony plains, minor limonitic low rises and drainage floors, supporting mulga and halophytic shrublands. Drainage zones of this land system are moderately susceptible to soil erosion, particularly where perennial shrub cover is substantially reduced or the soil surface is disturbed. Disturbance of the protective stone mantle on saline stony plains is also likely to initiate water erosion (Pringle et al., 1994).

The Rainbow land system consists of hardpan plains supporting mulga shrublands. This land system is generally not susceptible to erosion (Pringle et al., 1994).

Based on the above, the proposed clearing may be at variance to this Principle. Potential land degradation impacts as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

Methodology Pringle et al. (1994)

GIS Database:
- Landsystem Rangelands

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

Comments

Proposal is not likely to be at variance to this Principle

There are no conservation areas in the vicinity of the application area. The nearest DBCA (formerly DPaW) managed land is the former Bulga Downs Pastoral Lease which is located approximately 55 kilometres north north-west 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). The proposed clearing is unlikely to result in significant changes to surface water flows.

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

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

Methodology

GIS Database:
- Hydrography, Linear
- Public Drinking Water Source Areas

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments

Proposal is not likely to be at variance to this Principle

The climate of the region is arid, with a low average rainfall of approximately 200 millimetres per year, falling mainly in winter (CALM, 2002). The nearest weather station is Menzies, approximately 73 kilometres south-east of the application area, with an average rainfall of approximately 254 millimetres per year (BoM, 2020).

There are no permanent water courses or waterbodies within the application area (GIS Database). 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:
- Hydrography, linear

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

Comments

The clearing permit application was advertised on 13 January 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 are no native title claims over the area under application (DPLH, 2020). 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

BoM (2020) Bureau of Meteorology Website – Climate Data Online, Menzies. Bureau of Meteorology. http://www.bom.gov.au/climate/data/ (Accessed 5 February 2020).

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.

DPLH (2020) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 5 February 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.

GLS (2019) Flora and Vegetation Survey of the Tim's Find Project. Report prepared by Goldfields Landcare Services for Alt Resources Ltd, July 2019.

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.

NVS (2019) Detailed Flora and Vegetation Survey of Tim's Find- Part 2. Report prepared by Native Vegetation Solutions for Alt Resources Ltd, October 2019.

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. Technical Bulletin No. 87. Department of Agriculture, South Perth, Western Australia.

Terrestrial Ecosystems (2019) Level 1 Vertebrate Fauna Risk Assessment for Tims Find. Report prepared by Terrestrial Ecosystems for Alt Resources Pty Ltd, November 2019.

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	*Environmental Protection Act 1986*, Western Australia
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (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	*Rights in Water and Irrigation Act 1914*, 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.