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.:	6689/6
Permit type:	Purpose Permit

1.2. Proponent details

Proponent's name:	**Robe River Limited**

1.3. Property details

Property:	*Iron Ore (Robe River) Agreement Act 1964*, Mineral Lease 248SA (AML 70/248)
Local Government Area:	Shire of Ashburton
Colloquial name:	Mesa A to Mesa G Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1,490		Mechanical Removal	Mineral exploration, a construction camp, hydrogeological and geotechnical investigations, mine support infrastructure, environmental investigations and associated works

1.5. Decision on application

Decision on Permit Application:	Grant
Decision Date:	28 March 2019

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:

29: Sparse low woodland mulga, discontinuous in scattered groups;

82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana;*

93: Hummock grasslands, shrub steppe; kanji over soft spinifex;

583: Hummock grasslands, sparse shrub steppe; kanji and *Acacia bivenosa* over hard spinifex *Triodia basedowii* and *T. wiseana*;

600: Sedgeland; sedges with open low tree savanna; *Eucalyptus* sp. aff *aspera* over various sedges;

604: Hummock grasslands, shrub steppe; kanji and snakewood over soft spinifex;

605: Hummock grasslands, shrub steppe; *Acacia pachycarpa* and waterwood over soft spinifex; and,

620: Hummock grasslands, shrub steppe; snakewood over soft spinifex (GIS Database).

The following vegetation associations have been mapped within the amendment area from several flora surveys undertaken by MWH in 2016 (Rio Tinto, 2019):

Mesa F

Vegetation of Plains

AiAaAbTw: *Acacia inaequilatera* scattered tall shrubs over *Acacia ancistrocarpa*, *A. bivenosa* open shrubland to shrubland over *Triodia wiseana* hummock grassland.

AsyAbAaTe: *Acacia synchronicia, A. bivenosa, A. ancistrocarpa* open shrubland to shrubland over *Triodia epactia* open hummock grassland.

AxTw/AxTe: Mosaic of *Acacia xiphophylla* low woodland to tall shrubland over *Triodia wiseana* open hummock grassland, and *Acacia xiphophylla* low woodland to tall shrubland over *Triodia epactia* open hummock grassland.

Vegetation of Mesas and Hills

AanTw: Acacia pteraneura low open woodland over Triodia wiseana hummock grassland.

AarTw: *Acacia arida* scattered shrubs to open heath over *Triodia wiseana* hummock grassland.

AarTw/AbTw: Mosaic of *Acacia arida* scattered shrubs to open heath over *Triodia wiseana* hummock grassland, and *Acacia bivenosa* open shrubland to open heath over *Triodia wiseana* hummock grassland.

AbTw: *Acacia bivenosa* open shrubland to open heath over *Triodia wiseana* hummock grassland.

ElAarTw: *Eucalyptus leucophloia* subsp. *leucophloia* scattered low trees over *Acacia arida* shrubland to tall shrubland over *Triodia wiseana* hummock grassland.

Vegetation of Minor Creeks and Drainage Lines

AtuTw: Acacia tumida var. pilbarensis tall open scrub over Triodia wiseana open hummock grassland.

ChAtuTw: *Corymbia hamersleyana* scattered low trees over *Acacia tumida* var. *pilbarensis* tall open scrub over *Triodia wiseana* open hummock grassland.

CzAtrAaTeTw: Corymbia zygophylla scattered low trees to low open woodland over Acacia trachycarpa, Acacia ancistrocarpa tall shrubland over Triodia epactia, Triodia wiseana hummock grassland.

ElChAatTw: Eucalyptus leucophloia subsp. leucophloia, Corymbia hamersleyana scattered low trees over Acacia atkinsiana tall shrubland over Triodia wiseana open hummock to hummock grassland.

Vegetation of Creeks and Rivers

CcAaAbAsyTeTw: *Corymbia candida* scattered low trees over *Acacia ancistrocarpa, A. bivenosa, A. synchronicia* open shrubland over *Triodia epactia, T. wiseana* hummock grassland.

Mesa G

Vegetation of Plains

AatAbTe: *Acacia atkinsiana* open heath to tall shrubland over *Acacia bivenosa* open shrubland over *Triodia epactia* hummock grassland.

AatAbTw: *Acacia atkinsiana* open tall shrubland over *Acacia bivenosa* open shrubland over *Triodia wiseana* hummock grassland.

AatAbTw/AatAbTe: Mosaic of *Acacia atkinsiana* tall open shrubland over *Acacia bivenosa* open shrubland over *Triodia wiseana* hummock grassland / *Acacia atkinsiana* open heath to tall shrubland over *Acacia bivenosa* open shrubland over *Triodia epactia* hummock grassland.

AiAaAbTw: *Acacia inaequilatera* scattered tall shrubs over *Acacia ancistrocarpa, A. bivenosa* open shrubland to shrubland over *Triodia wiseana* hummock grassland.

AsclAbTeTw: *Acacia sclerosperma* tall open scrub over *A. bivenosa* open shrubland over *Triodia epactia, T. wiseana* open hummock grassland.

AsyAbAaTw: *Acacia synchronicia, A. bivenosa, A. ancistrocarpa* open shrubland over *Triodia wiseana* open hummock grassland.

AxTw: *Acacia xiphophylla* low woodland to tall shrubland over *Triodia wiseana* open hummock grassland.

ChAbTw: *Corymbia hamersleyana* scattered low trees over *Acacia bivenosa* open shrubland to open heath over *Triodia wiseana* hummock grassland.

ChAbTw/AsyAbAaTw: Mosaic of *Corymbia hamersleyana* scattered low trees over *Acacia bivenosa* open shrubland to open heath over *Triodia wiseana* hummock grassland / *Acacia synchronicia, A. bivenosa, A. ancistrocarpa* open shrubland over *Triodia wiseana* open hummock grassland.

ChAbTwTe: *Corymbia hamersleyana* scattered low trees to low woodland over *Acacia bivenosa* open shrubland over *Triodia wiseana, T. epactia* hummock grassland.

ScaId: *Triodia wiseana, T. epactia* scattered hummock grasses with scattered herbs.

Vegetation of Hills

AacTw: *Acacia acradenia* open shrubland to open heath over *Triodia wiseana* hummock grassland.

AatTEuTw: *Acacia atkinsiana, A. inaequilatera, Petalostylis labicheoides* tall shrubland over *Tephrosia uniovulata* open shrubland over *Triodia wiseana* hummock grassland.

AbTw: *Acacia bivenosa* scattered shrubs to open shrubland over *Triodia wiseana* hummock grassland.

AiAbTw: *Acacia inaequilatera* scattered tall shrubs over *A. bivenosa* scattered shrubs over *Triodia wiseana* hummock grassland.

AtuPlAacTw: *Acacia tumida* var. *pilbarensis,* (*Petalostylis labicheoides*) tall closed scrub over *Acacia acradenia* low open shrubland over *Triodia wiseana,* (*Triodia* sp. Robe River (M.E. Trudgen et al. MET 12367)) very open hummock grassland.

ElGwAacTw: *Eucalyptus leucophloia* subsp*. leucophloia* scattered low trees over *Grevillea wickhamii* scattered tall shrubs to tall shrubland over *Acacia acradenia* scattered shrubs to shrubland over *Triodia wiseana* hummock grassland.

Vegetation of Minor Creeks and Drainage Lines

AanAsclAatTwTe: *Acacia aneura* scattered low trees over *A. sclerosperma, A. atkinsiana* tall shrubland over *Triodia wiseana, T. epactia* hummock grassland.

ChAacTw: *Corymbia hamersleyana* low open woodland over *Acacia acradenia* open heath over *Triodia wiseana* open hummock grassland.

ChAtuTwTe: *Corymbia hamersleyana* low open woodland over *Acacia tumida* var. *pilbarensis* tall open scrub over *Triodia wiseana, T. epactia* open hummock grassland.

ElChPlGwAacTw: *Eucalyptus leucophloia* subsp*. leucophloia, Corymbia hamersleyana* scattered low trees to low open woodland over *Petalostylis labicheoides, Grevillea wickhamii* tall open shrubland over *Acacia acradenia* open heath over *Triodia wiseana* hummock grassland.

Vegetation of Creeks and Rivers

CcAciAaAbTwTe: *Corymbia candida* low open woodland over *Acacia citrinoviridis* tall open shrubland over *Acacia ancistrocarpa, A. bivenosa* open shrubland over *Triodia wiseana, T. epactia* hummock grassland.

EcEvAtrApyPlTw: *Eucalyptus camaldulensis* woodland over *Eucalyptus victrix* low woodland over *Acacia trachycarpa, A. pyrifolia, Petalostylis labicheoides* tall open shrubland over mixed open herbland and *Triodia wiseana* very open hummock grassland.

Vegetation associations within the remainder of the permit boundary are detailed in decision reports CPS 6689/1, CPS 6689/2, CPS 6689/3, CPS 6689/4 and CPS 6689/5.

Clearing Description

Mesa A to Mesa G Project
Robe River Limited proposes to clear up to 1,490 hectares of native vegetation within a total boundary of approximately 7,965 hectares, for the purposes of mineral exploration, a construction camp, hydrogeological and geotechnical investigations, mine support infrastructure, environmental investigations and associated activities. The project is located approximately 20 kilometres south of Pannawonica in the Shire of Ashburton.

Vegetation Condition

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

To:

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

Comment

Clearing permit CPS 6689/1 was granted by the Department of Mines and Petroleum (now Department of Mines, Industry Regulation and Safety) on 1 October 2015 and was valid from 24 October 2015 to 31 July 2030. The permit authorised the clearing of up to 500 hectares within a permit boundary of approximately 3,750 hectares.

CPS 6689/2 was granted on 23 June 2016, amending the permit to increase the amount of clearing authorised to 600 hectares and increase the clearing permit boundary to approximately 4,600 hectares. The amendment also aligned the reporting date, reporting period and expiry date to Robe River Limited's new standard reporting dates.

CPS 6689/3 was granted on 13 July 2017, amending the permit to increase the amount of clearing authorised to 620 hectares, increase the clearing permit boundary to approximately 4,648 hectares and include construction camp as a purpose of clearing.

CPS 6689/4 was granted on 21 December 2017, amending the permit to increase the clearing permit boundary to approximately 5,809 hectares and include mine support infrastructure and environmental investigations as a purpose of clearing.

CPS 6689/5 was granted on 16 August 2018, amending the permit to increase the area authorised to be cleared to 800 hectares and increase the clearing permit boundary to approximately 6,259.5 hectares

One 29 January 2019, Robe River Limited applied to amend CPS 6689/5 to increase the area authorised to be cleared to 1,490 hectares, increase the clearing permit boundary to approximately 7,965 hectares and amalgamate clearing permits CPS 2551/3, 5266/3, 7077/1 and 7628/1 with this permit.

A number of flora and vegetation surveys have been conducted within and surrounding the application area (Rio Tinto, 2015). Given the large size of the application area, a vegetation consolidation exercise was undertaken by Rio Tinto and Eco Logical Australia (Rio Tinto, 2015). Vegetation types identified as occurring within the application area have been based on the results of selected surveys that were deemed to provide the best overall coverage of the application area (Rio Tinto, 2015).

Vegetation types within the amendment area were predominantly derived from MWH (2016). The smaller, eastern portion of the amendment area is outside of the existing survey area, so the vegetation description of this area has been extrapolated from surrounding surveys (Rio Tinto, 2019).

The vegetation condition for the amendment area was derived from a vegetation survey conducted by MWH (2016). The vegetation condition was described used a scale based on Trudgen (1988) and has been converted to the corresponding condition from the Keighery (1994) scale.

3. Assessment of application against Clearing Principles

Comments

Robe River Limited has applied to increase the clearing area from 800 hectares to 1,490 hectares and increase the permit boundary from 6,259.5 hectares to approximately 7,965 hectares. This is to allow for further exploration drilling at Mesa F and Mesa G, located in the Robe Valley, south-west of Pannawonica in the Pilbara region of Western Australia. Robe River Limited has also applied to amalgamate clearing permits CPS 2551/3, 5266/3, 7077/1 and 7628/1 with CPS 6689/6.

The flora and vegetation survey of the amendment area identified 34 vegetation associations, which are considered well represented locally and regionally (Rio Tinto, 2019). None of the vegetation associations recorded in the amendment area are considered Threatened Ecological Communities (Rio Tinto, 2019; GIS Database). The eastern amendment area intersects with the mapped extent of the Priority 1 Ecological Community (PEC) 'Subterranean invertebrate communities of mesas in the Robe Valley region' (GIS Database). The proposed clearing for exploration and investigative activities are not likely to significantly impact on subterranean communities. Potential impacts to this PEC as a result of the proposed clearing may be minimised by the existing restricted clearing condition.

None of the species recorded within the amendment area were identified as a Threatened flora species (Rio Tinto, 2019; GIS Database). Three Priority flora species have been recorded within the amendment area: *Triodia* sp. Robe River (Priority 3), *Rhynchosia bungarensis* (Priority 4) and *Goodenia nuda* (Priority 4) (Rio Tinto, 2019). These species were also recorded in adjacent areas outside of the permit area (Rio Tinto, 2019). These species are widespread throughout the Pilbara bioregion and the proposed clearing is not likely to have a significant impact on habitat for these species (Rio Tinto, 2019; Western Australian Herbarium, 2019).

The Priority flora species *Abutilon* sp. Onslow (Priority 1), has been recorded within 20 kilometres of the amendment area (Rio Tinto, 2019; DPaW, 2019). There may be suitable habitat for *Abutilon* sp. Onslow in the western section of the amendment area however this species was not recorded after targeted searches (MWH, 2016).

Most of the vegetation within the amendment area is considered to be in 'excellent' condition, however some scattered weed species were noted (Rio Tinto, 2019). Potential impacts from the spread of weeds into the amendment area may be minimised by the existing weed management condition.

The amendment area comprises three fauna habitat types; breakaways, drainages and plains (Rio Tinto, 2019). These habitat types are considered widespread in the region (MWH, 2015). The amendment area may contain foraging and dispersal habitat for Northern Quoll (*Dasyurus hallucatus* – Endangered), foraging habitat for Ghost Bat (*Macroderma gigas* – Vulnerable) and Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia* – Vulnerable) and preferred habitat for Western Pebble-mound Mouse (*Pseudomys chapmani* - Priority 4). Protected migratory species such as the Fork-tailed Swift (*Apus pacificus*) and Rainbow Bee-eater (*Merops ornatus*) may temporarily utilise the amendment area however these species are unlikely to be impacted by the proposed clearing.

The Northern Quoll has been recorded numerous times in the locality, the closest record adjacent to the southern side of the amendment area (Rio Tinto, 2019). These records have generally been associated with rocky habitats, particularly around the edges of mesas (Rio Tinto, 2019). Northern Quoll may utilise the amendment area for foraging and dispersal, but no core habitat suitable for denning was recorded (Rio Tinto, 2019). There are areas of significant habitat for Northern Quoll within the existing permit area, which are subject to a fauna management condition.

The amendment area lacks suitable roosting habitat, such as rocky areas and gorges, for Ghost Bat and Pilbara Leaf-nosed Bat (Rio Tinto, 2019). Both species have been recorded in the local area (Rio Tinto, 2019), and may forage within the amendment area. The vegetation communities recorded in the amendment area are considered widespread in the local area, therefore the proposed clearing is not likely to significantly impact on the availability of foraging habitat for these two species (Rio Tinto, 2019). Several roosting sites have been recorded in the existing permit area, which are subject to a restricted clearing condition.

The plains habitat may be suitable for the Western Pebble-mound Mouse. No pebble-mounds have been recorded within the amendment area, however one mound was recorded in close proximity (Rio Tinto, 2019). This species may potentially occur within the amendment area, however given the broad range of the species and extent of suitable habitat outside of the amendment area (Rio Tinto, 2019), the Western Pebble-mound Mouse is not likely to rely on the amendment area for habitat.

There are no permanent watercourses or wetlands within the amendment area (GIS Database). Some minor ephemeral creek lines occur in the amendment area, which only flow following significant rainfall events (Rio Tinto, 2019). The vegetation unit ChCfEcTe was recorded along a single drainage line in the north-west of the amendment area (Rio Tinto, 2019). Potential impacts to drainage lines and riparian vegetation may be minimised by the existing watercourse management condition.

The amendment area intersects with the Newman and Robe land system, which can be prone to degradation if vegetation cover is removed (Van Vreeswyk et al., 2004). Impacts from land degradation may be minimised by the existing staged clearing condition.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*. Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision reports CPS 6689/1, 6689/2, 6689/3, 6689/4 and 6689/5.

Methodology

DPaW (2019)
MWH (2015)
MWH (2016)
Rio Tinto (2019)
Van Vreeswyk et al. (2004)
Western Australian Herbarium (2019)

GIS Database:
- DPaW Tenure
- Hydrography, Linear
- Imagery
- Landsystem Rangelands
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities buffers
- Threatened and Priority Flora

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

Comments

There is one Native Title claim over the area under application (WC1999/012) (DPLH, 2019). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are numerous registered Aboriginal Sites of Significance within the application area (DPLH, 2019). 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.

The amendment application was advertised on 25 February 2019 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

Methodology

DPLH (2019)

4. References

DPaW (2019) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. https://naturemap.dpaw.wa.gov.au/ (Accessed 18 March 2019).

DPLH (2019) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 18 March 2019).

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

MWH (2015) Level 2 Terrestrial Fauna Survey: Mesa B-C, Warramboo BWT and Highway to Tod Bore and Mesa A. Report prepared for Rio Tinto Iron Ore, by MWH Australia.
MWH (2016) Level 2 Flora and Vegetation Survey: Mesa B-C, Warramboo BWT and Highway to Tod Bore and Mesa A. Report prepared for Rio Tinto Iron Ore, by MWH Australia.
Rio Tinto (2015) Desktop Flora, Vegetation and Fauna Habitat Assessment at Robe Valley: Native Vegetation Clearing Permit – Supporting Report. Rio Tinto Iron Ore, Perth, Western Australia.
Rio Tinto (2019) APPLICATION FOR AN AMENDMENT TO A CLEARING PERMIT (CPS 6689/5) – Mesa A to Mesa G Project – Mineral Lease 248SA - Mesa F and G Drilling Native Vegetation Clearing Permit Supporting Report. Rio Tinto Iron Ore, January 2019.
Trudgen, M.E. (1988) A report on the flora and vegetation of the Port Kennedy area. Report prepared for Bowman Bishaw and Associates, West Perth.
Van Vreeswyk, A.M.E., Payne, A.L., Hennig, P., and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia. Department of Agriculture, Western Australia.
Western Australian Herbarium (2019) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. https://florabase.dpaw.wa.gov.au/ (Accessed 18 March 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)
DEE	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 DEE)
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 DEE)
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.

Principles for clearing native vegetation:

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

(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.

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

(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.

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

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

(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.

(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.

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