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.: 4094/3
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **BHP Billiton Iron Ore Pty Ltd**

1.3. Property details

Property: *Iron Ore (Mount Newman) Agreement Act 1964, Mineral Lease 244SA (AML70/244)*
Local Government Area: Shire of East Pilbara
Colloquial name: Eastern Packsaddles

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
150		Mechanical Removal	Mineral exploration drilling, hydrological investigations and supporting infrastructure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 10 December 2020

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

Beard vegetation associations have been mapped for the whole of Western Australia and are useful to look at vegetation in a regional context. Two Beard vegetation associations have been mapped within the application area (GIS Database):

18: Low woodland; mulga (*Acacia aneura*); and
82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana* (GIS Database).

The application area was surveyed by Onshore (2010) in November 2009, February 2010 and June 2010. Based on these surveys the following 21 vegetation associations were recorded within the application area:

2a: Low Open Forest of *Eucalyptus xerothermica*, *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* over Tussock Grassland of *Themeda triandra* and *Cymbopogon ambiguus* with Shrubland of *Petalostylis labicheoides, Acacia monticola* and *Santalum lanceolatum*;

3a: Low Open Forest of *Acacia aptaneura* over Tussock Grassland of *Themeda triandra*, *Chrysopogon fallax* and *Aristida inaequiglumis*;

3b: Low Open Forest of *Acacia catenulata* subsp. *occidentalis*, *Acacia aptaneura* and *Grevillea* aff. *nematophylla* over Open Shrubland of *Scaevola acacioides* and *Acacia tetragonophylla* over Very Open Tussock Grassland of *Eriachne mucronata*;

4a: Low Woodland of *Corymbia ferriticola*, *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Open Tussock Grassland of *Themeda triandra, Cymbopogon ambiguus* and *Eriachne mucronata* and Open Hummock Grassland of *Triodia pungens*;

5a: Low Shrubland of *Acacia spondylophylla* over Open Hummock grassland of *Triodia* sp. Shovelanna (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana*;

6a: Open to Closed Scrub of *Acacia tumida* var. *pilbarensis*, *Petalostylis labicheoides* and *Acacia monticola* over Hummock Grassland of *Triodia pungens* (or Tussock Grassland of *Themeda triandra*) with Low Woodland of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia*;

6b: Open Scrub of *Acacia bivenosa, Petalostylis labicheoides* and *Rulingia luteiflora* over Hummock Grassland of *Triodia angusta* and *Triodia wiseana* with Scattered Low Trees of *Eucalyptus xerothermica*;

6c: Open Scrub of *Petalostylis labicheoides*, *Acacia monticola* and *Grevillea wickhamii* subsp. *hispidula* over Hummock Grassland of *Triodia wiseana* with Low Woodland of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia*;

7a: Tussock Grassland of *Themeda triandra, Eriachne tenuiculmis* and *Eulalia aurea* with Open Woodland of *Eucalyptus victrix* over Shrubland of *Gossypium robinsonii, Acacia tumida* var. *pilbarensis* and *Acacia pyrifolia* var. *pyrifolia;*

7b: Tussock Grassland of *Themeda triandra, Eriachne mucronata* and *Eriachne tenuiculmis* with Low Woodland of *Corymbia ferriticola, Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* over High Shrubland of *Petalostylis labicheoides, Grevillea wickhamii* subsp. *hispidula* and *Acacia tumida* var. *pilbarensis;*

8a: Hummock Grassland of *Triodia pungens* with Very Open Mallee of *Eucalyptus gamophylla* over Open Shrubland of *Acacia bivenosa, Acacia pachyacra* and *Acacia pruinocarpa*;

8b: Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Corymbia deserticola* subsp. *deserticola* and *Eucalyptus leucophloia* subsp. *leucophloia;*

8c: Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia;*

8d: Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* and open Mallee of *Eucalyptus kingsmillii* and *Eucalyptus gamophylla;*

8e: Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Shrubland of *Acacia hilliana, Acacia adoxa* var. *adoxa* and *Gompholobium karijini*;

8f: Hummock Grassland of *Triodia wiseana* and *Triodia brizoides* with Open Shrubland of *Acacia bivenosa* and *Acacia inaequilatera* and Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* and *Eucalyptus gamophylla* (Mallee);

8g: Hummock Grassland of *Triodia wiseana* and *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia bivenosa, Acacia aneura* var. *aneura* and *Acacia ancistrocarpa;*

8h: Hummock Grassland of *Triodia wiseana, Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia angusta* with Shrubland of *Acacia bivenosa* and *Acacia ancistrocarpa* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia, Eucalyptus xerothermica* and *Eucalyptus gamophylla* (Mallee);

8i: Hummock Grassland of *Triodia wiseana* with High Open Shrubland of *Acacia bivenosa* and *Acacia pyrifolia* var. *pyrifolia* and Scattered Low Mallee of *Eucalyptus socialis* subsp. *eucentrica;*

9a: Open Hummock Grassland of *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*; and

9b: Open Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Open Shrubland of *Acacia hilliana, Acacia adoxa* var. *adoxa* and *Indigofera monophylla* (Onshore, 2010).

The extended application area applied for in CPS 4094/2 has been the subject of 16 biological flora surveys. Onshore (2011) and Onshore (2012) have summarised the flora surveys and identified the following vegetation associations within the extended application area:

1a: *Eucalyptus* Woodland to Forest – Woodland to Forest of *Eucalyptus camaldulensis* var. *obtusa, Melaleuca argentea* and *Eucalyptus victrix* over Low Open Woodland of *Acacia citrinoviridis* and *Acacia coriacea* subsp. *Pendens* over shrubland of *Acacia bivenosa, Gossypium sturtianum* and *Gossypium robinsonii* in brown silty sand and clay soils along Weeli Wolli Creek;

3c: *Acacia* Low Open Forest – Low Open Forest of *Acacia catenulate* subsp. *occidentalis, Acacia aneura* var. *tenuis* and *Grevillea* aff. *Berryana* over Open Shrubland of *Scaevola acacioides* and *Acacia tetragonophylla* over Very Open Tussock Grasslands of *Eriachne mucronata* in light brown loam soils on steep breakaway scree slopes;

4b: *Eucalyptus/Corymbia* Low Woodland – Low Woodland of *Eucalyptus xerothermica* and *Corymbia hamersleyana* over Shrubland of *Acacia pyrifolia* var. *pyrifolia*, *Petalostylis labicheoides* and *Gossypium robinsonii* over Open Hummock Grassland of *Triodia pungens* in red brown loam soils along medium drainage lines;

7c: *Acacia* Open Scrub – Open Scrub of *Petalostylis labicheoides, Acacia monticola* and *Grevillea wickhamii* subsp. *hispidula* over Hummock Grassland of *Triodia wiseana* with Low Woodland of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* in red brown loam soils on minor drainage lines;

9c: *Themeda* Tussock Grassland – Tussock Grassland of *Themeda triandra, Eriachne mucronata* and *Eriachne tenuiculmis* with Low Woodland of *Corymbia ferriticola, Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* over High Scrubland of *Petalostylis labicheoides*, *Grevillea wickhamii* subsp. *hispidula* and *Acacia tumida* var. *pilbarensis* in red brown load soils in dissected medium drainage lines with steep or vertical cliff faces;

10c: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia pungens* with Very Open Mallee of *Eucalyptus gamophylla* over Open Shrubland of *Acacia bivenosa, Acacia pachyacra* and *Acacia pruinocarpa* in red brown loam soils on lower valley slopes;

10d: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835)

with Low Open Woodland of *Corymbia deserticola* subsp. *deserticola* and *Eucalyptus leucophloia* subsp. *leucophloia* in red brown loam soils on plains, low rises. Foot slopes and spur hill slopes;

10e: Hummock Grassland of *Triodia wiseana, Triodia brizoides* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* in brown clay loam on steep hill slopes and U-shaped gullies;

10f: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* and Open Mallee of *Eucalyptus kingsmillii* subsp. *kingsmillii* and *Eucalyptus gamophylla* in red brown loam soils on hill crests;

10g: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Shrubland of *Acacia hilliana, Acacia adoxa* var. *adoxa* and *Gompholobium* sp. Pilbara (N.F. Norris 908) in red brown loam soils on hill crests and hill slopes;

10j: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana* and *Triodia brizoides* with Open Shrubland of *Acacia bivenosa* and *Acacia inaequilatera* and Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* and *Eucalyptus gamophylla* (Mallee) in skeletal red brown loam soils on rocky hill slopes;

10k: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana* and *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia bivenosa, Acacia aneura* var. *aneura* and *Acacia ancistrocarpa* in red brown silty loams on stony plains and low hills;

10l: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana, Triodia* sp. Shovelanna Hill and *Triodia angusta* with Shrubland of *Acacia bivenosa* and *Acacia ancistrocarpa* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia, Eucalyptus xerothermica* and *Eucalyptus gamophylla* (Mallee) in red brown loam soils on flood plains;

10m: *Triodia* Hummock Grassland – Hummock Grassland of *Triodia wiseana* with High Open Shrubland of *Acacia bivenosa* and *Acacia pyrifolia* var. *pyrifolia* and Scattered Low Mallee of *Eucalyptus socialis* subsp. *eucentrica* in light brown clay loam soils on calcrete plains and low rises;

11a: *Triodia* Open Hummock Grassland – Open Hummock Grassland of *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* in skeletal orange brown loam soils on steep south-facing hill slopes;

11b: *Triodia* Open Hummock Grassland – Open Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3858) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Open Shrubland of *Acacia hilliana, Acacia adoxa* var. *adoxa* and *Indigofera monophylla* in skeletal orange brown loam soils on hill crests and upper hill slopes;

3: *Corymbia* Low Open Forest – Low Open Forest of *Corymbia ferriticola, Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Open Shrubland of *Acacia hamersleyensis*, *Dodonaea viscosa* subsp. *mucronata* and *Eremophila tietkensii* over Open Hummock Grassland of *Triodia pungens* in red brown clay loam in gorges and deeply dissected rocky gullies;

4a: *Eucalyptus* Low Open Woodland – Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Open Shrubland of *Acacia tumida* var. *pilbarensis, Petalostylis labicheoides* and *Rulingia luteiflora* over Open Hummock Grassland of *Triodia pungens* and *Triodia wiseana* in red brown silty loam along minor drainage lines;

4b: *Eucalyptus* Low Open Woodland – Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Open Shrubland of *Corchorus lasiocarpus* subsp. *parvus, Dampiera candicans* and *Gompholobium* sp. Pilbara (N.F. Norris 908) over Open Hummock Grassland of *Triodia* sp. Shovelanna Hill and *Triodia pungens* in red brown loam on hill slopes;

6c: Triodia Hummock Grassland – Hummock Grassland of *Triodia wiseana* over Very Open Mallee of *Eucalyptus socialis* subsp. *eucentrica* over Open Shrubland of *Acacia bivenosa, Acacia arida* and *Petalostylis labicheoides* in light brown clay loam on calcrete low hills and plains;

6g: Triodia Hummock Grassland – Hummock Grassland of *Triodia* sp. Shovelanna (S. van Leeuwen 3835) and *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Open Shrubland of *Acacia hilliana, Acacia adoxa* var. *adoxa* and *Gompholobium* sp. Pilbara (N.F. Norris 908) in red brown loam on hill slopes and hill crests; and

6h: Triodia Hummock Grassland – Hummock Grassland of *Triodia* sp. Shovelanna Hill with Low Open Woodland of *Corymbia deserticola, Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* and Low Open Shrubland of *Acacia arida, Corchorus lasiocarpus* subsp. *parvus* and *Indigofera monophylla* in red brown loam on footslopes; and

CD: Completely Degraded – Roads and Railways.

Clearing Description

Eastern Packsaddles.
BHP Billiton Iron Ore Pty Ltd proposes to clear up to 150 hectares of native vegetation within a boundary of approximately 8,050 hectares, for the purposes of exploration drilling, hydrological investigations, and supporting infrastructure. The project is located approximately 74 kilometres north-west of Newman, within the Shire of East Pilbara.

Vegetation Condition

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994);

To:

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

Comment

The area will comprise of 295 potential drill targets, nine laydown areas, seven hydrological drill targets (water bores) and 52.45 kilometres of access tracks.

Clearing permit CPS 4094/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 20 January 2011 and was valid from 12 February 2011 to 12 February 2016. The permit authorised the clearing of up to 75 hectares of native vegetation within a boundary of approximately 1,705 hectares, for the purposes of exploration drilling, hydrological investigations and supporting infrastructure.

CPS 4094/2 was granted on 22 August 2012, amending the permit increase the amount of clearing authorised to 150 hectares, and increase the permit boundary to 8,050 hectares. The proponent also applied to extend the permit duration from 2016 to 2026.

On 14 October 2020, the Permit Holder applied to amend CPS 4094/2 to extend the period in which clearing is authorised to 12 February 2031 and extend the permit duration to 12 February 2036. The proponent has also applied to remove Condition 7(a) of the permit. The amount of clearing authorised and the permit boundaries are to remain unchanged.

3. Assessment of application against Clearing Principles

Comments

The permit holder has applied to amend the clearing permit to extend the permit duration by 10 years, as the project is ongoing. The size of the area approved to clear (150 hectares), and the permit boundary remains unchanged. The amendment is unlikely to result in any significant change to the environmental impacts of the proposed clearing (GIS Database).

The permit holder has also applied to remove Condition 7(a) from the permit which required a targeted survey over the application area for Threatened and Priority flora species prior to clearing. Given that the proponent has satisfied this requirement, Condition 7(a) will be removed from the permit. Condition 7 will now restrict the clearing of Priority flora species, and the clearing of native vegetation within 10 metres of Priority flora species recorded within the relevant flora and vegetation surveys undertaken within the application area (Onshore Environmental, 2011; 2012).

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 previous versions of the decision report.

Methodology

Onshore Environmental (2011)
Onshore Environmental (2012)

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

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

Comments

There are two native title claims over the area under application (DPLH, 2020). 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 15 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.

The amendment application was advertised on 26 October 2020 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 (2020)

4. References

DPLH (2020) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS (Accessed 3 November 2020).

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

Onshore Environmental (2010) Level 2 Flora and Vegetation Survey, Packsaddles East Survey Area. Prepared for BHP Billiton Iron Ore Pty Ltd, by Onshore Environmental Consultants Pty Ltd, 2010.

Onshore Environmental (2011) Flora and Vegetation Survey - Area C and Surrounds. Prepared for BHP Billiton Iron Ore Pty Ltd, by Onshore Environmental Consultants Pty Ltd, July 2011.

Onshore Environmental (2012) Flora and Vegetation Review Jinidi Iron Ore Project. Prepared for BHP Billiton Iron Ore Pty Ltd, by Onshore Environmental Consultants Pty Ltd, 2012.

5. Glossary

Acronyms:

BC Act	*Biodiversity Conservation Act 2016,* 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	*Environmental Protection Act 1986*, Western Australia
EPA	Environmental Protection Authority, 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.