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.:	3547/4
Permit type:	Purpose Permit

1.2. Proponent details

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

1.3. Property details

Property:	*Iron Ore (McCamey's Monster) Agreement Authorisation Act 1972*, Special Lease for Mining Operations, I 126948, Lot 32 on Deposited Plan 217524, Lot 39 on Deposited Plan 194318 *Iron Ore (Mount Newman) Agreement Act 1964,* Mineral Lease 244SA Miscellaneous Licence 52/108 Miscellaneous Licence 52/109
Local Government Area:	Shire of East Pilbara
Colloquial name:	Jimblebar No. 2 Spur Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
295		Mechanical Removal	Construction and Maintenance of Railways, Water Pipelines, Bores, Power Lines and Other Associated Infrastructure.

1.5. Decision on application

Decision on Permit Application:	Granted
Decision Date:	18 April 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*; and
216: Low woodland; Mulga (with spinifex) on rises (GIS Database).

There have been numerous flora and vegetation surveys undertaken across the amendment area and surrounding area since 2009 (BHP Billiton, 2019). The following vegetation associations have been identified within the permit area:

Acacia High Shrubland

FP Aa Ch TtCfAco - High Shrubland of *Acacia aptaneura* with Low Open Woodland of *Corymbia hamersleyana* over Open Tussock Grassland of *Themeda triandra*, *Chrysopogon fallax* and *Aristida contorta* on red loamy sand on floodplains; and

FP AaAscAan Tp - High Shrubland of *Acacia aptaneura*, *Acacia sclerosperma* subsp. *sclerosperma* and *Acacia ancistrocarpa* over Very Open Hummock Grassland of *Triodia pungens* on red brown sandy loam on floodplains and drainage lines.

Acacia Low Open Woodland

FP AaAciApr AsyAscAb Tp - Low Open Woodland of *Acacia aptaneura*, *Acacia citrinoviridis* and *Acacia pruinocarpa* over Open Shrubland of *Acacia synchronicia*, *Acacia sclerosperma* subsp. *sclerosperma* and *Acacia bivenosa* over Very Open Hummock Grassland of *Triodia pungens* on red brown clay loam on floodplains and medium drainage lines; and

FP AaAprCh EfrAteDpe AinCfAco - Low Open Woodland of *Acacia aptaneura*, *Acacia pruinocarpa* and *Corymbia hamersleyana* with Open Shrubland of *Eremophila fraseri*, *Acacia tetragonophylla* and *Dodonea petiolaris* over Tussock Grassland of *Aristida inaequiglumis*, *Chrysopogon fallax* and *Aristida contorta* on red sandy loam on floodplains.

Acacia Low Woodland

FP AcaAaEx Eff Tp - Low Woodland of *Acacia catenulata* subsp. *occidentalis*, *Acacia aptaneura* and *Eucalyptus xerothermica* over Open Shrubland of *Eremophila forrestii* subsp. *forrestii* over Open Hummock Grassland of *Triodia pungens* on red sandy loam on floodplains; and

FP AciChAa AanApyPl TtAinCc - Low Woodland of *Acacia citrinoviridis*, *Corymbia hamersleyana* and *Acacia aptanerua* over High Shrubland of *Acacia ancistrocarpa*, *Acacia pyrifolia* var. *pyrifolia* and *Petalostylis labicheoides* over Very Open Tussock Grassland of *Themeda triandra*, *Aristida inaequiglumis* and **Cenchrus ciliaris* on brown sandy loam on floodplains and medium drainage lines.

Acacia Shrubland

MI AmoAanPl ChEl TtAin - Shrubland of *Acacia monticola*, *Acacia ancistrocarpa* and *Petalostylis labicheoides* with Scattered Low Trees of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* over Open Tussock Grassland of *Themeda triandra* and *Aristida inaequilatera* on red loamy sand on minor drainage lines.

Corymbia Low Open Woodland

MI CcAa CcCs Tb - Low Open Woodland of *Corymbia candida* subsp. *dipsodes* and *Acacia aptaneura* over Open Tussock Grassland of **Cenchrus ciliaris* and **Cenchrus setiger* and Very Open Hummock Grassland of *Triodia basedowii* on red brown loam on floodplains and minor drainage lines; and

SP ChEoCd AanApaAad TbTscTs - Low Open Woodland of *Corymbia hamersleyana*, *Eucalyptus odontocarpa* and *Corymbia deserticola* subsp. *deserticola* over Open Shrubland of *Acacia ancistrocarpa*, *Acacia pachyacra* and *Acacia adsurgens* over Open Hummock Grassland of *Triodia basedowii*, *Triodia schinzii* and *Triodia* sp. Shovelanna Hill on red brown sandy loam on footslopes and stony plains.

Themeda Tussock Grassland

ME TtCfEa ExEvCh PlApaApy - Tussock Grassland of *Themeda triandra*, *Chrysopogon fallax* and *Eulalia aurea* with Low Open Woodland of *Eucalyptus xerothermica*, *Eucalyptus victrix* and *Corymbia hamersleyana* and Shrubland of *Petalostylis labicheoides*, *Acacia pachyacra* and *Acacia pyrifolia* var. *pyrifolia* on red sandy loam on medium drainage lines; and

MI TtCobEmu ChEg GwPlEt - Tussock Grassland of *Themeda triandra*, *Cymbopogon obtectus* and *Eriachne mucronata* with Open Woodland of *Corymbia hamersleyana* and *Eucalyptus gamophylla* over High Open Shrubland of *Grevillea wickhamii* subsp. *hispidula*, *Petalostylis labicheoides* and *Eremophila tietkensii* on red loamy sand on minor drainage lines.

10b - Open Woodland of *Eucalyptus kingsmillii* subsp. *kingsmillii* and *Eucalyptus leucophloia* subsp. *leucophloia* over Tall Open Scrub of *Acacia monticola*, *Santalum lanceolatum* and *Androcalva luteiflora* over Tussock Grassland of *Themeda triandra* and *Eulalia aurea* and Open Hummock Grassland of *Triodia epactia*.

Triodia Hummock Grassland

FP Tb AaApr Eff - Hummock Grassland of *Triodia basedowii* with Low Open Woodland of *Acacia aptaneura* and *Acacia pruinocarpa* over Open Shrubland of *Eremophila forrestii* subsp. *forrestii* on red sandy loam on floodplains;

FP Tp EtEg AbAanPl - Hummock Grassland of *Triodia pungens* with Very Open Mallee of *Eucalyptus trivalva* and *Eucalyptus gamophylla* over Shrubland of *Acacia bivenosa*, *Acacia ancistrocarpa* and *Petalostylis labicheoides* on red brown loam on un-incised drainage tracts on stony plains;

HC TsTp EkEg - Hummock Grassland of *Triodia* sp. Shovelanna Hill and *Triodia pungens* with Very Open Mallee of *Eucalyptus kingsmillii* subsp. *kingsmillii* and *Eucalyptus gamophylla* on red sandy loam on hill slopes and hill crests;

HS Tb El AbAiPl - Hummock Grassland of *Triodia basedowii* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia bivenosa*, *Acacia inaequilatera* and *Petalostylis labicheoides* on red brown sandy loam on hill slopes;

HS TpTs CdEl AanAbAte - Hummock Grassland of *Triodia pungens* and *Triodia* sp. Shovelanna Hill with Low Open Woodland of *Corymbia deserticola* subsp. *deserticola* and *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia ancistrocarpa*, *Acacia bivenosa* and *Acacia tenuissima* on red loamy sand on hill slopes and footslopes;

HS Ts - Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) on red brown sandy loam on hill slopes;

HS TsTwTp ElCh AhiAad - Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835), *Triodia wiseana* and *Triodia pungens* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* over Low Open Shrubland of *Acacia hilliana* and *Acacia adoxa* var. *adoxa* on red brown sandy loam on hill slopes;

HS Tw ElChHc AanAbAa - Hummock Grassland of *Triodia wiseana* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana* and *Hakea chordophylla* and Open Shrubland of *Acacia ancistrocarpa*, *Acacia bivenosa* and *Acacia aptaneura* on red sandy loam on hill slopes;

HS TwTs HcAbGw AptAhi - Hummock Grassland of *Triodia wiseana* and *Triodia* sp. Shovelanna Hill with Open Shrubland of *Hakea chordophylla*, *Acacia bivenosa* and *Grevillea wickhamii* subsp. *hispidula* over Low Open

Shrubland of *Acacia pytchophylla* and *Acacia hilliana* on red brown sandy loam on upper hill slopes and hill crests;

MI TsTp AanAmoGw - Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) and *Triodia pungens* with Shrubland of *Acacia ancistrocarpa*, *Acacia monticola* and *Grevillea wickhamii* subsp. hispidula on brown sandy loam on minor drainage lines;

SA Tb ChEg SpBeKp - Hummock Grassland of *Triodia basedowii* with Low Open Woodland of *Corymbia hamersleyana* and *Eucalyptus gamophylla* over Low Open Shrubland of *Scaevola parvifolia*, *Bonamia erecta* and *Kennedia prorepens* on red loamy sand on sand plains;

SP TpTb Eg PlAbAan - Hummock Grassland of *Triodia pungens* and *Triodia basedowii* with Open Mallee of *Eucalyptus gamophylla* and Shrubland of *Petalostylis labicheoides*, *Acacia bivenosa* and *Acacia ancistrocarpa* on red brown loamy sand on stony plains and footslopes;

SP TpTwTs EfrSgpSao - Hummock Grassland of *Triodia pungens*, *Triodia wiseana* and *Triodia* sp. Shovelanna Hill with Open Shrubland of *Eremophila fraseri*, *Senna glutinosa* subsp. *pruinosa* and *Senna artemisioides* subsp. *oligophylla* on red brown loamy sand on stony plains and hill slopes;

3a - Low Open Woodland of *Hakea lorea* subsp. *lorea* and *Corymbia aspera* over Scattered Tall Shrubs of *Acacia pruinocarpa* over Hummock Grassland of *Triodia schinzii* and Scattered herbs of *Bonamia rosea* and *Duperreya commixta*;

3c - Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* over Scattered Tall Shrubs of Acacia *pruinocarpa* and *A. aptaneura* over Low Open Shrubland of *A. hilliana* and *A. adoxa* var. *adoxa* over Open Hummock Grassland of *Triodia basedowii*; and

FS Ts CdHc AancAiGrwh - Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Corymbia deserticola* subsp. *deserticola* and *Hakea chordophylla* over Open Shrubland of *Acacia ancistrocarpa, Acacia inaequilatera* and *Grevillea wickhamii* subsp. *hispidula* on red brown sandy loam on footslopes and stony plains.

***Cenchrus* Tussock Grassland**

MA CcTtEua ChCa AbAtpAss - Tussock Grassland of **Cenchrus ciliaris*, *Themeda triandra* and *Eulalia aurea* with Low Open Woodland of *Corymbia hamersleyana* and *Corymbia aspera* over High Open Shrubland of *Acacia bivenosa*, *Acacia tumida* var. *pilbarensis* and *Acacia sclerosperma* subsp. *sclerosperma* on brown loamy sand on levee banks of major drainage lines.

Acacia Open Shrubland

MI AtpPlAm TpTs ChEll - Open Scrub of *Acacia tumida* var. *pilbarensis*, *Petalostylis labicheoides* and *Acacia monticola* over Open Hummock Grassland of *Triodia pungens* and *Triodia* sp. Shovelanna Hill (S.van Leeuwen 3835) with Low Open Woodland of *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* on red brown sandy loam on minor drainage lines.

Acacia Tall Open Scrub

10b - This is a mosaic of two vegegation associations: 11a :Tall scrub of *Acacia ancistrocarpa*, *A. disctylophleba*, *Grevillea wickhamii* and *A. inaequilatera* over Open Hummock Grassland of *Triodia basedowii*, and *T*. sp. Shovellana Hill (S. van Leeuwen 3835) and Very Open Tussock Grassland of *Paraneurachne muelleri* which occurs as a mosaic with vegetation association 5a.5a: Open Woodland of *Corymbia hamersleyana* and *Eucalyptus gamophylla* over Tall Shrubland of *Acacia monticola, Petalostylis labicheoides* and *Santalum lanceolatum* and *A. bivenosa* over Hummock Grassland of *Triodia epactia* and *T. basedowii* and Open Tussock Grassland of *Themeda triandra*.

Triodia Open Hummock Grassland

HS TpTb EllAaAQcao SesSegIErcu - Open Hummock Grassland of *Triodia pungens* and *Triodia basedowii* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia, Acacia aptaneura* and *Acacia catenulata* subsp. *occidentalis* over Open Shrubland of *Senna stricta, Senna glutinosa* subsp. x *luerssenii* and *Eremophila cuneifolia* on orange sandy loam on hill slopes.

Clearing Description

Jimblebar No. 2 Spur Project.
BHP Billiton Iron Ore Pty Ltd proposes to clear up to 295 hectares within a total boundary of approximately 1,816 hectares for the purposes of construction and maintenance of railways, water pipelines, power lines and other associated infrastructure. The project is located approximately 18 kilometres east-northeast 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

Clearing Permit CPS 3547/1 was granted by the Department of Mines and Petroleum (DMP) on 4 March 2010 and authorised the clearing of 295 hectares within a permit boundary of approximately 1,017 hectares, for the purpose of railway construction and maintenance, and associated works.

CPS 3547/1 was amended on 27 November 2014 to change the purpose of clearing to include construction and maintenance of railways, water pipelines, power lines and other associated infrastructure. The amendment also included extending the duration of the permit to 30 November 2020, and amending the annual reporting date of 1 October. The permit duration was extended to 2026 to allow for rehabilitation activities. No clearing is authorised after 30 November 2020.

CPS 3547/3 was granted on 17 November 2016, amending the permit to increase the permit boundary from 1,017 hectares to 1,195 hectares. The amount of clearing authorised will remain the same.

On 25 February 2019, the Permit Holder applied to amend CPS 3547/3 to increase the permit boundary from 1,195 hectares to 1,816 hectares.

3. Assessment of application against Clearing Principles

Comments

BHP Billiton Iron Ore Pty Ltd has applied to increase the permit boundary from 1,195 hectares to 1,816 hectares. This is to allow the installation of several injection bores between the Orebody 18 mining operations and Warrawandu Village.

The flora and vegetation survey within the amendment area identified eight additional vegetation associations, which are well represented within the regional area (BHP Billiton, 2019; GIS Database). Three individuals of the Priority 3 Flora species *Aristida jerichoensis* var. *subspinulifera* were identified within the amendment boundary (BHP Billiton, 2019). The potential clearing of these three individuals is not likely to impact the conservation significance of this species. No Threatened Flora species, Priority or Ecological Communities were identified within the amendment area (BHP Billiton, 2019; GIS Database).

Biologic (2014) mapped six fauna habitats within the amendment area;

1. Drainage Area;
2. Minor Drainage Line;
3. Mulga;
4. Sand Plain;
5. Stony Plain; and
6. Crest/Slope.

All of these faunal habitats were also mapped within the previous permit boundary (BHP Billtion, 2019). The fauna survey recorded the Rainbow Bee-eater (*Merops ornatus* – Migratory, EPBC Act; Schedule 5, BC Act) and the Western Pebble-mound Mouse (*Pseudomus chapmani* – Priority 4) (BHP Billiton, 2019; Biologic, 2014). There were two records of the Rainbow Bee-eater within the amendment area and eight records of the Western Pebble-mound Mouse (BHP Billiton, 2019). These species are common and widespread throughout the local and regional area, and are likely to use the amendment area as foraging habitat. The proposed clearing of native vegetation is unlikely to impact the conservation significance of these species. A fauna survey by Eco Logical (2013) identified seven Brush-tailed Mulgara burrows that occur within the amendment boundary, two of which may be active. Potential impacts to Mulgara may be minimised by the implementation of a condition requiring existing burrows are not disturbed.

Several non-perennial drainage lines intersect the application area with riparian vegetation occurring in association with these areas (BHP Billiton, 2019; GIS Database). As these drainage lines are only likely to inundate following significant rainfall or cyclonic events, the proposed clearing is unlikely to result in any significant impact to the drainage lines provided natural surface water flow patterns are not disturbed. Potential impacts to riparian vegetation may be minimised through the implementation of the existing vegetation management condition.

Several weed species were identified within the amendment area (BHP Billiton, 2019). Clearing activities have the potential to result in an increase in the incidence of weed species, which may negatively impact on the biodiversity of the local area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of the existing weed management conditions.

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 3547/1, 3547/2, and 3547/3.

Methodology

BHP Billiton (2019)
Biologic (2014)
Eco Logical (2013)

GIS Database:
- Hydrography, Lakes
- Hydrography, Linear
- Imagery

- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities buffers

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

Comments

There is one native title claim over the area under application (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 is one 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 18 March 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

BHP (2019) Application to Amend NVCP CPS 3547/2 Jimblebar No. 2 Spur – Native Vegetation Clearing Permit Amendment Application Supporting Document. Prepared by BHP Billiton Iron Ore Pty Ltd, February 2019.

Biologic (2014) OB19 Vertebrate Survey. Report prepared for BHP Billiton Iron Ore Pty Ltd, by Biologic Environmental Survey Pty Ltd, 2014.

DPLH (2019) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 25 March 2019).

Eco Logical (2013) Ninga Level 1 Vertebrate Fauna Assessment. Prepared for BHP Billiton Pty Ltd, by Eco Logical Australia, September 2013.

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

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.