



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4677/5
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 (AML 70/244)
Local Government Area: Shire of East Pilbara
Colloquial name: Orebody 31 Exploration Drilling Programme

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
300		Mechanical Removal	Mineral exploration, hydrological investigations, construction and maintenance of communications towers and associated infrastructure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 21 March 2019

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. The following Beard vegetation associations have been broadly mapped within the application area (GIS Database):

82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*; and
216: Low woodland; mulga (with spinifex) on rises.

A flora and vegetation survey of the application area undertaken in October 2013 identified the following vegetation associations within the permit area (Onshore Environmental, 2014):

1a: Low open forest (to low woodland) of *Acacia aptaneura*, *Acacia paraneura* and *Eucalyptus leucophloia* subsp. *leucophloia* over open scrub (to high shrubland) of *Acacia balsamea*, *Acacia wanyu* and *Acacia monticola* over open hummock grassland of *Triodia pungens* forming mulga groves on flood plains and on minor drainage lines through undulating ironstone ridges, hills and valleys;

1b: Low open forest of *Acacia aptaneura*, *Acacia paraneura* and *Eucalyptus leucophloia* subsp. *leucophloia* over open scrub of *Acacia wanyu*, *Acacia tetragonophylla* and *Acacia bivenosa* over open hummock grassland of *Triodia pungens* and *Triodia* sp. Shovelanna Hill on minor drainage lines through undulating ironstone ridges, hills and valleys;

2a: Low woodland of *Acacia aptaneura*, *Acacia catenulata* subsp. *occidentalis* and *Acacia ayersiana* over high shrubland of *Acacia subcontorta* over open hummock grassland of *Triodia basedowii* on stony loam plains;

2b: Low woodland of *Acacia citrinoviridis*, *Eucalyptus victrix* and *Acacia pruinoarpa* over high shrubland of *Acacia monticola*, *Acacia pyriformis* var. *pyriformis* and *Petalostylis labicheoides* over open tussock grassland of *Themeda triandra* and *Eriachne tenuiculmis* on medium drainage lines;

3: Closed scrub (to closed low forest) of *Acacia pteraneura* and *Corymbia aspera* over tussock grassland of *Panicum effusum* and *Eragrostis flaccida* and open shrubland of *Eremophila fraseri* on gilgai drainage zones and flats;

4a: Open scrub of *Acacia ancistrocarpa*, *Acacia bivenosa* and *Acacia tenuissima* over hummock grassland of *Triodia pungens* with low open mallee of *Eucalyptus gamophylla* on drainage lines and drainage zones;

4b: Open scrub of *Acacia monticola* and *Grevillea wickhamii* subsp. *hispidula* over open hummock grassland of *Triodia pungens* and *Triodia* sp. Shovelanna Hill with scattered low trees of *Corymbia deserticola* subsp. *deserticola*, *Corymbia hamersleyana* and *Eucalyptus leucophloia* subsp. *leucophloia* on minor drainage lines dissecting low hills and foot slopes;

5a: High shrubland of *Acacia ancistrocarpa*, *Acacia adsurgens* and *Acacia elachantha* over open hummock grassland of *Triodia schinzii* and open tussock grassland of *Aristida inaequiglumis*, *Eulalia aurea* and *Digitaria brownii* on foot slopes;

5b: High shrubland of *Acacia ancistrocarpa*, *Acacia adsurgens* and *Acacia elachantha* over open tussock grassland of *Themeda triandra*, *Aristida holathera* var. *holathera* and *Paraneurachne muelleri* with low open woodland of *Corymbia hamersleyana*, *Corymbia aspera* and *Hakea lorea* subsp. *lorea* on sandy drainage zones and floodplains;

- 5c:** High shrubland of *Acacia balsamea*, *Acacia wanyu* and *Acacia tetragonophylla* over open shrubland of *Senna glutinosa* subsp. *x luerssenii*, *Eremophila platycalyx* and *Senna stricta* over open hummock grassland of *Triodia pungens* and *Triodia* sp. Shovelanna Hill on undulating plateaux and hill slopes;
- 6:** High open shrubland of *Acacia aptaneura* and *Acacia paraneura* over scattered tussock grasses of *Aristida contorta* and *Aristida inaequiglumis* and scattered hummock grasses of *Triodia basedowii* and *Triodia pungens* on clay loam flats and stony plains;
- 7:** Shrubland of *Acacia wanyu*, *Acacia tetragonophylla* and *Senna glutinosa* subsp. *x luerssenii* over low shrubland of *Senna stricta*, *Eremophila cuneifolia* and *Scaevola spinescens* over open hummock grassland of *x luerssenii* on low hill crests and slopes;
- 9:** Low shrubland of *Sclerolaena cuneata*, *Frankenia setosa* and *Eremophila cuneifolia* with open shrubland of *Acacia synchronicia* and scattered low trees of *Acacia aptaneura* and *Acacia paraneura* on gently sloping plains;
- 10a:** Hummock grassland of *Triodia angusta* and *Triodia pungens* with shrubland of *Acacia bivenosa* and low open mallee of *Eucalyptus socialis* subsp. *eucentrica* and *Eucalyptus gamophylla* on low calcrete hills and rises;
- 10b:** Hummock grassland of *Triodia angusta* with open shrubland of *Acacia synchronicia*, *Acacia tetragonophylla* and *Acacia wanyu* over low open shrubland of *Eremophila cuneifolia*, *Lepidium platypetalum* and *Maireana pyramidata* on undulating hills, ironstone ridges and eroded slopes;
- 10c:** Hummock grassland of *Triodia basedowii* and *Triodia pungens* with high shrubland (to open scrub) of *Acacia ancistrocarpa*, *Acacia pyriformis* var. *pyriformis* and *Acacia bivenosa* and low open woodland of *Corymbia hamersleyana* on sandy floodplains and levee banks;
- 10d:** Hummock grassland of *Triodia basedowii* with low open woodland of *Corymbia hamersleyana*, *Hakea lorea* subsp. *lorea* and high open shrubland of *Acacia ancistrocarpa*, *Acacia pachyacra* and *Acacia bivenosa* on stony sand plains;
- 10e:** Hummock grassland of *Triodia basedowii* with low woodland of *Acacia pteraneura* over open shrubland of *Eremophila forrestii* subsp. *forrestii* and *Senna glutinosa* ssp. *x luerssenii* on sandy loam plains;
- 10f:** Hummock grassland of *Triodia basedowii*, *Triodia pungens* and *Triodia* sp. Shovelanna Hill with low woodland of *Acacia aptaneura*, *Acacia pruinocarpa* and *Acacia paraneura* over shrubland of *Eremophila fraseri* and *Eremophila forrestii* subsp. *forrestii* on sandy drainage zones;
- 10g:** Hummock grassland of *Triodia pungens* with high shrubland of *Acacia ancistrocarpa* and *Acacia tenuissima* with low open woodland of *Eucalyptus xerothermica*, *Corymbia aspera* and *Corymbia hamersleyana* on clay loam drainage zones;
- 10h:** Hummock grassland of *Triodia pungens* with shrubland (to open scrub) of *Acacia pyriformis* var. *pyriformis*, *Gossypium robinsonii* and *Acacia maitlandii* with low open woodland of *Corymbia hamersleyana* on sandy floodplain and levee banks;
- 10i:** Hummock grassland of *Triodia* sp. Shovelanna Hill and *Triodia pungens* with high shrubland of *Acacia rhodophloia* and low shrubland of *Eremophila exilifolia* on ironstone hill slopes;
- 10j:** Hummock grassland of *Triodia* sp. Shovelanna Hill with high shrubland of *Acacia ancistrocarpa*, *Grevillea wickhamii* subsp. *hispidula* and *Acacia bivenosa* over low open shrubland of *Acacia hilliana* on foot slopes;
- 10k:** Hummock grassland of *Triodia* sp. Shovelanna Hill with high shrubland of *Acacia wanyu*, *Acacia bivenosa* and *Grevillea wickhamii* subsp. *hispidula* over open shrubland of *Senna glutinosa* subsp. *x luerssenii* on foot slopes and lower hill slopes;
- 10l:** Hummock grassland of *Triodia* sp. Shovelanna Hill with low shrubland of *Acacia hilliana*, *Acacia adoxa* var. *adoxo* and *Halgania solanacea* with high open shrubland of *Grevillea wickhamii* subsp. *hispidula*, *Acacia marramamba* and *Grevillea berryana* on hill crests and slopes;
- 11a:** Open hummock grassland of *Triodia basedowii* and *Triodia pungens* over open tussock grassland of *Aristida inaequiglumis*, *Themeda triandra* and *Digitaria brownii* with low open woodland of *Corymbia hamersleyana* on loamy drainage zones adjacent to floodplains;
- 11b:** Open hummock grassland of *Triodia basedowii* and *Triodia* sp. Shovelanna Hill with low open woodland of *Acacia aptaneura*, *Acacia pruinocarpa* and *Corymbia hamersleyana* and high open shrubland of *Eremophila platycalyx*, *Acacia wanyu* and *Acacia synchronicia* on stony rises, plains and foot slopes;
- 11c:** Open hummock grassland of *Triodia pungens* and *Triodia* sp. Shovelanna Hill with low open woodland of *Corymbia ferriticola* and *Eucalyptus leucophloia* subsp. *leucophloia* and open shrubland of *Astrotricha hamptonii*, *Dodonaea pachyneura* and *Acacia maitlandii* on faces of large open ravines and occasionally cliffs;
- 12:** Closed tussock grassland of *Themeda triandra* and *Eulalia aurea* with low open woodland of *Hakea lorea* subsp. *lorea*, *Acacia aptaneura* and *Corymbia aspera* and open shrubland of *Acacia pyriformis* var. *pyriformis* and *Acacia ancistrocarpa* on plains and drainage zones;
- 13a:** Tussock grassland of *Themeda triandra*, *Digitaria brownii* and *Aristida inaequiglumis* with low woodland of *Acacia aptaneura* and *Corymbia hamersleyana* and very open hummock grassland of *Triodia basedowii* on clay drainage zones and floodplains;
- 13b:** Tussock grassland of *Themeda triandra*, *Eulalia aurea* and *Digitaria brownii* with low open woodland (to low woodland) of *Acacia aptaneura* and *Acacia paraneura* and open shrubland of *Eremophila fraseri* on floodplains;
- 13c:** Tussock grassland of *Themeda triandra*, *Eulalia aurea* and *Digitaria brownii* with low woodland (to low open woodland) of *Acacia aptaneura*, *Eucalyptus xerothermica* and *Corymbia hamersleyana* and low open shrubland of *Isotropis forrestii* and *Ptilotus obovatus* on drainage zones and flats;
- 14:** Tussock grassland of *Eragrostis eriopoda*, *Paraneurachne muelleri* and *Aristida contorta* with low open woodland of *Corymbia hamersleyana*, *Hakea lorea* subsp. *lorea* and *Corymbia aspera* and open shrubland of *Acacia melleodora* and *Senna artemisioides* subsp. *oligophylla* on gently sloping sandy loam plains;
- 15:** Tussock grassland of *Cenchrus ciliaris* with low open woodland of *Acacia citrinoviridis*, *Acacia aptaneura* and *Corymbia hamersleyana* and high shrubland of *Gossypium robinsonii*, *Acacia pyriformis* var. *pyriformis* and *Petalostylis labicheoides* on sandy floodplain.

Clearing Description

Orebody 31 Exploration Drilling Programme

BHP Billiton Iron Ore Pty Ltd proposes to clear up to 300 hectares of native vegetation within a total boundary of approximately 3,011 hectares, for the purpose of mineral exploration, hydrological investigations, construction and maintenance of communications towers and associated activities. The project is located approximately 37 kilometres east of Newman, in the Shire of East Pilbara.

Vegetation Condition Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994);
To
Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994).

Comment Clearing permit CPS 4677/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety (DMIRS)) on 8 December 2011 and was valid from 31 December 2011 to 31 December 2021. The permit authorised the clearing of 102 hectares of native vegetation within a permit boundary of approximately 3,039 hectares, for the purpose of mineral exploration, hydrological investigations and associated infrastructure.

Amended permit CPS 4677/2 was granted on 5 June 2014, increasing the amount of clearing authorised to 200 hectares, decreasing the permit boundary to approximately 3,010 hectares to avoid areas of environmental significance, and changing the permit expiry date to 30 November 2021 to align with other BHP Billiton permits.

Amended permit CPS 4677/3 was granted on 8 December 2016, extending the permit duration to 30 November 2026, and extending the period within which clearing is authorised to 30 November 2021. The area of clearing authorised and the permit boundaries remained unchanged.

CPS 4677/4 was granted on 1 February 2018, to change the authorised purpose of clearing to: "mineral exploration, hydrological investigations, construction and maintenance of communications towers and associated infrastructure". The area of clearing authorised (200 hectares) and the permit boundaries remained unchanged.

On 17 December 2018, the Permit Holder applied to amend CPS 4677/4 to increase the amount of clearing authorised from 200 hectares to 300 hectares, amend the permit boundary, extend the period in which clearing is authorised to 30 November 2025, and extend the permit duration to 30 November 2030.

3. Assessment of application against Clearing Principles

Comments

BHP Billiton Iron Ore Pty Ltd has applied to amend the permit, to increase the amount of authorised clearing by 100 hectares, amend the permit boundary and extend the permit duration by four years.

The outer boundary of the permit area has not changed, however several exclusion areas within the permit boundary have been adjusted to more accurately identify and exclude the gorge/gully fauna habitat from the permit area. The refinement of the mapping of the gorge/gully fauna habitat has resulted in some previously excluded areas now being included in the amended permit area, and some areas that had previously been included in the permit area now being excluded from the amended permit area (CPS 4677/5). The gorge/gully habitat has been excluded from the permit area as this habitat type is a relatively restricted feature in the landscape and may include significant fauna habitats such as caves and rock pools (Biologic, 2014). In addition to the gorge/gully habitat, several known populations of conservation significant flora have also been excluded from the amended permit area, using a 10 metre buffer around the populations (BHP Billiton, 2018). These include *Acacia* sp. East Fortescue (J. Bull & D. Roberts ONS A27.01) (Priority 1); *Rhagodia* sp. Hamersley (M. Trudgen 17794), (Priority 3); and *Acacia clelandii* which was recorded with a significant range extension (BHP Billiton, 2018; Onshore, 2014). The adjustments to the exclusion areas will result in an overall increase in the size of the clearing permit area by approximately 0.807 hectares.

The proposed changes to the permit boundaries are minor, however, the change to the amount of clearing authorised within the permit area is more significant (an additional 100 hectares). The amended area of clearing (300 hectares) will result in the disturbance of approximately 10 percent of the amended clearing permit area. However, the Pilbara bioregion remains largely uncleared (Government of Western Australia, 2018), and the application area does not represent a significant remnant of native vegetation in an area that has been extensively cleared.

Several biological surveys have been conducted over the application area (BHP Billiton, 2018). No Threatened Flora, Threatened Ecological Communities or Priority Ecological Communities have been recorded within the application area (GIS Database), and none have been found during any of the flora and vegetation surveys (BHP Billiton, 2018).

Biologic (2014) identified the following four vertebrate fauna habitats within the amended application area:

- Drainage Area / Floodplain;
- Hillcrest / Hill Slope;
- Minor Drainage Line; and
- Sand Plain.

The fauna and fauna habitats occurring within the application area are considered to be typical of the region, and the application area is not considered to represent significant habitat for fauna (Biologic, 2014). Although the proposed additional clearing will impact on fauna habitats at a local scale, it is not likely to have a significant impact on fauna or fauna habitats in a regional context.

Several fauna species of conservation significance have the potential to occur within the application area, based on known distributions and available habitats (BHP Billiton, 2018; Biologic, 2014), however the majority

of these species are highly mobile bird species, which are not dependant on specific fauna habitats. BHP Billiton (2018) has advised that disturbance of active Mulgara burrows and Western Pebble-Mound Mouse mounds will be avoided where practicable. The proposed additional 100 hectares of clearing within a permit boundary of approximately 3,000 hectares, is unlikely to impact the conservation status of any fauna species.

There are no permanent watercourses or wetlands within the permit area, however, there are numerous minor seasonal drainage lines (BHP Billiton, 2018; GIS Database). Clearing of vegetation growing in association with drainage lines should be avoided, where possible, however, given the ephemeral nature of the drainage lines, any impacts are expected to be minimal. Temporary, localised flooding may occur following heavy rainfall, however, the additional clearing is unlikely to have any significant impact on surface or groundwater quality, or on the incidence or intensity of natural flooding events.

The permit area is broadly mapped as occurring within the Boolgeeda, Newman, and Washplain land systems (GIS Database). These land systems are considered to be not generally susceptible to erosion (Van Vreeswyk et al., 2004), and the additional 100 hectares of proposed clearing is unlikely to result in appreciable land degradation. Several weed species have been recorded within the permit area (Onshore Environmental, 2014), and have the potential to outcompete native species and reduce biodiversity. Continued implementation of the existing weed management condition may minimise the risk of further spread of weeds.

There are no conservation areas within or in close proximity to the permit area (GIS Database), and the proposed additional 100 hectares of clearing is unlikely to impact on any conservation areas.

The vegetation associations, fauna habitats and landform types present within the amendment application area, are well represented in surrounding areas and the region remains largely uncleared (BHP Billiton, 2018; GIS Database). The additional 100 hectares of clearing within a total permit area of approximately 3,000 hectares is unlikely to result in any significant change to the environmental impacts of the proposed clearing (GIS Database).

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 BHP Billiton (2018)
Biologic (2014)
Government of Western Australia (2018)
Onshore Environmental (2014)
Van Vreeswyk et al. (2004)

GIS Database:
- DPaW Tenure
- Imagery
- Landsystem rangelands
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities boundaries
- Threatened Fauna

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

There is one native title claim (WC2005/006) over the area under application (DPLH, 2019). This claim has been determined by the Federal Court 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 several 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.

Methodology DPLH (2019)

4. References

- BHP Billiton (2018) Application to Increase the Disturbance Allocation, Clearing and Expiry Dates of Native Vegetation Clearing Permit CPS 4677/4 Orebody 31. BHP Billiton Iron Ore Pty Ltd, December 2018.
- Biologic (2014) Orebody 31 Vertebrate Fauna Survey. Report prepared for BHP Billiton Iron Ore Pty Ltd, by Biologic Environmental Survey Pty Ltd, January 2014.
- DPLH (2019) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 13 March 2019).
- Government of Western Australia (2018) 2017 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2017. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Onshore Environmental (2014) Orebody 31 Level 2 Flora and Vegetation Survey. Report prepared for BHP Billiton Iron Ore Pty Ltd, by Onshore Environmental Consultants Pty Ltd, February 2014.
- 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.

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	<i>Environmental Protection Act 1986</i> , Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{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.