



Clearing Permit Decision Report

1. Application details and outcomes

1.1. Permit application details

Permit number:	4831/4
Permit type:	Purpose Permit
Applicant name:	BHP Iron Ore Pty Ltd
Application received:	22 February 2023
Application area:	38 hectares
Purpose of clearing:	Construction and maintenance of airports, buildings and associated activities
Method of clearing:	Mechanical Removal
Tenure:	<i>Iron Ore (Mount Goldsworthy) Agreement Act 1964</i> , Mineral Lease 281SA (AML 70/281)
Location (LGA area):	Shire of East Pilbara
Colloquial name:	Coondewanna Airport

1.2. Description of clearing activities

BHP Iron Ore Pty Ltd proposes to clear up to 38 hectares of native vegetation within a boundary of approximately 371.1 hectares, for the purpose of construction and maintenance of airports, buildings and associated activities. The project is located approximately 100 kilometres north-west of Newman, within the Shire of East Pilbara (GIS Database).

Clearing permit CPS 4831/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 16 February 2012 and was valid from 10 March 2012 to 10 March 2022. The permit authorised the clearing of up to 37 hectares of native vegetation within a boundary of approximately 150.3 hectares, for the purpose of mineral production and associated infrastructure.

CPS 4831/2 was granted on 28 June 2012, amending the permit to increase the amount of clearing authorised to 38 hectares and to increase the permit boundary to approximately 371 hectares. There was no change to the permit duration.

CPS 4831/3 was granted on 8 December 2016, amending the permit to extend the permit duration to 30 November 2027, and to extend the period within which clearing is authorised to 30 November 2022. The area of clearing authorised and the permit boundaries remained unchanged.

On 22 February 2023, BHP Iron Ore Pty Ltd applied to amend CPS 4831/3 to extend the permit duration to 30 November 2037 and associated final reporting date, to extend the clearing period to 30 November 2032, and to update the Permit Holder to "BHP Iron Ore Pty Ltd". The applicant has also requested to amend the purpose to 'construction and maintenance of airports, buildings and associated activities', as the previous permit purpose did not align with the original purpose requested. The area of clearing authorised and the permit boundaries are to remain unchanged. The permit is to allow for the ongoing maintenance of the Coondewanna Airport, the MAC Warehouse and associated infrastructure including the airport landing system, waste water treatment plants, roads and tracks at the facilities (BHP, 2023).

According to the latest Annual Clearing Report submitted by BHP Iron Ore (2022), as of 30 June 2022, 25.7 hectares of native vegetation has been cleared and 2.93 hectares has been rehabilitated.

1.3. Decision on application and key considerations

Decision:	Grant
Decision date:	20 April 2023
Decision area:	38 hectares of native vegetation

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51K of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Mines, Industry Regulation and Safety (DMIRS) on 22 February 2023. DMIRS advertised the application for a public comment for a period of 7 days, and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics, relevant datasets, supporting information provided by the applicant including the results of a flora and vegetation survey and fauna survey, the clearing principles set out in Schedule 5 of the EP Act, and any other matters considered relevant to the assessment. The assessment identified that the proposed clearing will have negligible impact on habitat for flora, fauna and ecological communities, or conservation areas.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures, the Delegated Officer determined that the proposed clearing is not likely to lead to an unacceptable risk to the environment. The Delegated Officer decided to grant a clearing permit with staged clearing, avoid/minimise, weed, and flora management conditions.

2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Iron Ore (Mount Goldsworthy) Agreement Act 1964*, Mineral Lease 281SA (AML 70/281)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

Evidence was submitted by the applicant, demonstrating that avoidance and mitigation measures such as those listed below will be undertaken:

- populations of Priority flora will be avoided by a 10 metre buffer where practicable;
- where practicable, existing cleared tracks will be used;
- appropriate surface water management practices will be implemented to minimise erosion;
- clearing will be minimised where possible by restricting activities to the minimal required for safe operation; and
- clearing will comply with internal ground disturbance procedures (BHP, 2022).

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

The permit holder has advised that as of 30 June 2022, 25.7 hectares of native vegetation have been cleared pursuant to clearing permit 4831/3 (BHP, 2022). The proposed amendment involves extending the permit duration for the ongoing maintenance of the Coondewanna Airport and associated activities, and amending the purpose to align with the purpose requested in the original application (BHP, 2023).

No new biological information has been provided in support of the amendment application. However, the application area is greatly disturbed and the extension of the permit duration for the ongoing maintenance of the Coondewanna Airport and associated activities will not likely lead to a significant impact.

The flora and vegetation survey did not identify any threatened flora within the application area (ENV, 2010). One priority flora was recorded within the application area, *Rhagodia* sp. Hamersley (M. Trudgen 17794) (Priority 3) (ENV, 2010). One additional Priority flora *Rostellularia adscendens* var. *latifolia* (Priority 3) may potentially occur within the application area (ENV, 2010; GIS Database). This species has been recorded within 20 kilometres of the application area, however the species was not recorded within the application area during the flora survey (ENV, 2010). The impacts to potential *Rostellularia adscendens* var. *latifolia* individuals is not considered to be significant as there are currently 43 records of within the WA Herbarium across the Chichester, Fortescue and Hamersley bioregions and the continued maintenance of the Coondewanna Airport and associated activities is not likely to lead to a significant impact (Western Australian Herbarium, 1998-).

The application area is not located within a Threatened Ecological Community, and the flora and vegetation survey also concluded the vegetation types present were not representative of any Threatened or Priority Ecological Communities (ENV, 2010). A number of conservation significant fauna species were determined to possibly occur within the application area based on potentially suitable habitat (Biologic, 2014). It is unlikely that the vegetation within the application area will provide significant habitat for any conservation significant fauna species as most species are wide-ranging and highly mobile, the habitat is well represented in the surrounding areas, and the application area has been subject to previous clearing (ENV, 2010; GIS Database).

The nearest conservation area, Karijini National Park (R 30082) is located approximately 19 kilometres away from the application area (GIS Database). There are no permanent or ephemeral watercourses or wetlands within the application area (GIS Database). The proposed clearing is not likely to impact surface water quality, groundwater quality or lead to increase in flooding.

The vegetation associations, fauna habitats and landform types present within the application area are well represented in surrounding areas (ENV, 2010; GIS Database). The increase in permit duration is unlikely to result any significant change to the environmental impacts of the proposed clearing.

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.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on 8 March 2023 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (Banjima People - WAD6096/1998) over the area under application (DPLH, 2023). This claim has been registered with the National Native Title Tribunal / determined by the Federal Court on behalf of the claimant group. The area is mapped within the Banjima & RTIO Participation Agreement ILUA (Body Corporate Agreement) (WI2016/002). 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, 2023). 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.

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	The application area is located approximately 100 kilometres north-west of Newman, within the Shire of East Pilbara (GIS Database). The area to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia (GIS Database). The application area has been disturbed by previous activities and is surrounded by similar habitat (BHP, 2023; GIS Database).
Ecological linkage	According to available databases, the application area does not contain any known or mapped ecological linkages (GIS Database).
Conservation areas	The application area does not intersect any conservation areas (GIS Database). The nearest conservation area, Karijini National Park (R 30082), is located approximately 19 kilometres away from the application area (GIS Database).
Vegetation description	<p>The vegetation of the application area is broadly mapped as the following Beard vegetation associations:</p> <p>18: Low woodland; mulga (<i>Acacia aneura</i>); and</p> <p>82: Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i> (GIS Database).</p> <p>One flora and vegetation survey over the application area has been undertaken by ENV (2010), the following three vegetation associations were identified within the application area:</p> <ul style="list-style-type: none"> 1a: <i>Acacia</i> High Open Shrubland: High Open Shrubland of <i>Acacia aneura</i> var. <i>aneura</i>, <i>Acacia aneura</i> var. <i>pilbarana</i> and <i>Acacia pruinocarpa</i> with Very Open Tussock Grassland of <i>Aristida holathera</i> var. <i>holathera</i>, <i>Themeda triandra</i> and <i>Aristida contorta</i> on Red-Brown Loam on Plains; 2a: <i>Triodia</i> Open Hummock Grassland: Open Hummock Grassland of <i>Triodia wiseana</i>, <i>Triodia pungens</i> and <i>Triodia epactia</i> with Open Shrubland of <i>Acacia pruinocarpa</i>, <i>Acacia aneura</i> var. <i>conifera</i> and <i>Acacia maitlandii</i> with Scattered Low Trees of <i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i> and <i>Corymbia deserticola</i> subsp. <i>deserticola</i> on Red-Brown Loam on Rocky Hillslopes; and 3a: <i>Themeda</i> Tussock Grassland: Tussock Grassland of <i>Themeda triandra</i>, <i>Paraneurachne muelleri</i> and <i>Cymbopogon obtectus</i> with Low Shrubland of <i>Petalostylis labicheoides</i>, <i>Scaevola parvifolia</i> subsp. <i>pilbarae</i> and <i>Keraudrenia nephrosperma</i> with Low Open Woodland of <i>Eucalyptus</i> sp. and <i>Corymbia hamersleyana</i> on Red-Brown Clay Loam on Drainage Lines/ Floodplains (ENV, 2010).
Vegetation condition	<p>The flora and vegetation survey (ENV, 2010) indicate the vegetation within the proposed clearing area is in 'Completely Degraded' to 'Excellent' (Trudgen, 1991) condition, described as</p> <ul style="list-style-type: none"> Completely Degraded: Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs. Very Good: Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks. Excellent: Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement. <p>The full Trudgen (1991) condition rating scale is provided in Appendix B.</p>
Climate and landform	The climate of the region is arid to semi-arid warm Mediterranean and experiences an average annual rain fall of 323.8 millilitres (BoM, 2023).
Soil description	<p>The soils of the application area are broadly mapped as the following soil types:</p> <ul style="list-style-type: none"> 285Wn: Wannamunna system. Hardpan plains and internal drainage tracts supporting mulga shrublands and woodlands and occasionally eucalypt woodlands; 285Bg: Boolgeeda system. Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrubland; and 285Ne: Newman system. Rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands (DPIRD, 2023).
Land degradation risk	The Wannamunna, Boolgeeda and Newman land systems are considered largely erosion resistant, being at the end of millions of years of erosion and withstanding massive rainfall events on an annual basis without any appreciable land degradation (Van Vreeswyk et al., 2004).
Waterbodies	There are no permanent watercourses or wetlands within the application area (GIS Database). There are no Ramsar wetlands or wetlands of national importance (ANCA Wetlands) within the application area and no permanent or ephemeral drainage lines occur within the application area (GIS Database).

Characteristic	Details
Hydrogeography	The application area mapped within the Pilbara Groundwater Area, proclaimed under the RIWI Act (GIS Database).
Flora	The flora and vegetation survey did not identify any Threatened flora species (ENV, 2010). One Priority species, <i>Rhagodia</i> sp. Hamersley (M. Trudgen 17794) (Priority 3) has been recorded within the application area (ENV, 2010). ENV (2010) identified 62 Priority flora species as potentially occurring in the application area, of these 62 species, nine have been recorded in previous surveys in the vicinity of the application area (ENV, 2010). Of the nine Priority flora recorded in the previous surveys, two may occur within the application area: <i>Goodenia nuda</i> (Priority 4) (which is now no longer on the Priority flora list) and <i>Rostellularia adscendens</i> var. <i>latifolia</i> (Priority 3), however these species were not recorded within the application area (ENV, 2010).
Ecological communities	There are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The application area is mapped within the buffer of the Priority Ecological Community (PEC), ' <i>Eucalyptus victrix</i> over <i>Muehlenbeckia</i> Community' (GIS Database). None of the three vegetation associations that were identified within the application area are associated with this or any other PEC (GIS Database).
Fauna	The flora, vegetation and fauna survey identified two broad habitat types within the application area: Hill slopes and Alluvial Plains (ENV, 2010). Several conservation significant fauna species may potentially occur in the application area based on the habitat present, however most species are wide-ranging and highly mobile (Biologic, 2014).

A.2. Vegetation extent

	Pre-European area (ha)	Current extent (ha)	Extent Remaining %	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA Managed Lands
IBRA Bioregion - Pilbara	17,808,657.04	17,731,764.88	99.57	1,801,714.98	10.12
Beard vegetation associations - State					
Veg Assoc No. 18	19,892,306.46	19,843,148.07	99.75	1,317,179.00	6.62
Veg Assoc No. 82	2,565,901.28	2,553,206.19	99.51	295,377.96	11.51
Beard vegetation associations - Bioregion					
Veg Assoc No. 18	676,556.72	671,843.35	99.30	170,297.48	25.17
Veg Assoc No. 82	2,563,583.23	2,550,888.14	99.50	295,377.96	11.52

Government of Western Australia (2019)

Appendix B. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.

Condition	Description
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix C. Sources of information

C.1. GIS databases

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- Aboriginal Heritage Places (DPLH-001)
- Clearing Regulations – Schedule One Areas (DWER-057)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments – Catchments (DWER-028)
- Hydrography – Inland Waters – Waterlines
- Hydrography, Linear (DWER-031)
- IBRA Vegetation Statistics
- Native Title (ILUA) (LGATE-067)
- Pre-European Vegetation Statistics
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping – Best Available (DPIRD-027)
- Soil Landscape Mapping – Rangelands (DPIRD-064)
- WA Now Aerial Imagery

Restricted GIS Databases used:

- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

C.2. References

- BHP (2023) Application to Amend NVCP 4831/3 Coondewanna Airport NVCP. Native Vegetation Clearing Permit Amendment Application Supporting Document, February 2023.
- BHP (2022) BHP Iron Ore Annual Environmental Report July 2021 – June 2022. Prepared by BHP Iron Ore Pty Ltd.
- Biologic (2014) Consolidation of Regional Fauna Habitat Mapping. Unpublished report prepared for BHP Billiton Iron Ore Pty Ltd, May 2014.
- Bureau of Meteorology (BoM) (2023) Bureau of Meteorology Website – Climate Data Online, Newman Aero. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 11 April 2023).
- Department of Environment Regulation (DER) (2013) *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf
- Department of Planning, Lands and Heritage (DPLH) (2023) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS> (Accessed 12 April 2023).
- Department of Primary Industries and Regional Development (DPIRD) (2023) NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. URL: <https://dpird.maps.arcgis.com/apps/webappviewer/index.html?id=662e8cbf2def492381fc915aaf3c6a0f> (Accessed 12 April 2023).
- Department of Water and Environmental Regulation (DWER) (2021) Procedure: Native vegetation clearing permits. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.pdf
- ENV (2010) South Flank NVCP Extension Flora, Vegetation and Fauna Assessment. Unpublished Report Prepared for BHP Billiton Iron Ore by ENV Australia Pty Ltd, May 2010.
- Environmental Protection Authority (EPA) (2016) Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment. Available from:

http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf

Environmental Protection Authority (EPA) (2016) Technical Guidance – Terrestrial Fauna Surveys. Available from: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf

Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>

Trudgen, M.E. (1991) Vegetation condition scale in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A & Hennig, P. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia, Department of Agriculture, Western Australia.

Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 13 April 2023).

4. Glossary

Acronyms:

BC Act	<i>Biodiversity Conservation Act 2016</i> , 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)
DCCEEW	Department of Climate Change, Energy, the Environment and Water, 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 DCCEEW)
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	<i>Environmental Protection Act 1986</i> , Western Australia
EPA	Environmental Protection Authority, 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.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened 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 the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.