



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8971/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Bullseye Mining Limited

1.3. Property details

Property: Mining Leases 37/108, 37/519, 37/1167, 37/1309
Miscellaneous Licence 37/144

Local Government Area: Shire of Leonora

Colloquial name: North Laverton Gold Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
350		Mechanical Removal	Mineral Production and associated activities

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 10 September 2020

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:
18: Low woodland; mulga (*Acacia aneura*); and
39: Shrublands; mulga scrub (GIS Database).

A flora and vegetation survey was conducted by Botanica Consulting (Botanica) in October 2014 over the broader Laverton Gold Project tenement areas covering a total area of approximately 8,324 hectares, which included the current clearing permit application area (Botanica, 2015; 2020).

Botanica has reviewed the previous survey report and compiled the results relevant to the current application area (Botanica, 2020). The following vegetation associations were recorded within the current clearing permit application area (Botanica, 2020):

CLP-AFW1: Low woodland of *Acacia caesaneura* / *A. incurvaneura* / *A. mulganeura* over low scrub of *Eremophila* spp. and low grass of *Eragrostis eriopoda* on clay-loam plain;

CLP-AFW3: Low woodland of *Acacia incurvaneura* / *A. pruinocarpa* over open low scrub of *Eremophila spectabilis* subsp. *brevis* / *Ptilotus obovatus* / *Sida calyxhymentia* and low grass of *Eragrostis eriopoda* on clay-loam plain;

OD-AFW1: Low woodland / Forest of *Acacia caesaneura* / *A. incurvaneura* over open mixed low scrub of *Acacia* / *Eremophila* / *Sida* spp. and low grass of *Eragrostis eriopoda* / *Eriachne* spp. in drainage depression;

RH-AFW1: Low woodland of *Acacia ayersiana* / *A. incurvaneura* / *A. mulganeura* over open mixed low scrub of *Thryptomene* spp. / *Eremophila* spp. and dwarf scrub of *Ptilotus obovatus* / *Sida* sp. Golden calyces glabrous (H.N. Foote 32) on rocky ridge;

RH-AFW2: Low woodland of *Acacia incurvaneura* over low scrub of *Thryptomene decussata* and low grass of *Eriachne mucronata* on rocky ridge;

RH-AOW1: Open low woodland of *Acacia ayersiana* / *A. quadrimarginea* over scrub of *A. burkittii* / *Hakea kippistiana* over low scrub of *Senna* spp. and low scrub of *Ptilotus obovatus* on rocky hillslope;

RH-AOW2: Open low woodland of *Acacia incurvaneura* / *A. mulganeura* / *A. pruinocarpa* over low scrub of *Acacia* / *Eremophila* spp. and mixed dwarf scrub on rocky hillslope/rocky plain;

RP-AFW1: Low woodland of *Acacia incurvaneura* / *Hakea preissii* over open low scrub of *Senna* spp. and low scrub of *Ptilotus obovatus* / mixed Chenopods on rocky plain;

RP-AFW2: Low woodland of *Acacia incurvaneura* / *A. pruinocarpa* over low scrub of *Eremophila* spp. and dwarf scrub of *Ptilotus obovatus* / *Sida calyxhymentia* on quartz plain.

Clearing Description	North Laverton Gold Project. Bullseye Mining Limited proposes to clear up to 350 hectares of native vegetation within a boundary of approximately 1,769 hectares, for the purpose of mineral production and associated activities. The project is located approximately 95 kilometres northeast of Leinster, within the Shire of Leonora.
Vegetation Condition	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994). To Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).
Comment	The vegetation condition was derived from a vegetation survey conducted by Botanica Consulting (Botanica) in October 2014 (Botanica, 2015; 2020). The proposed clearing is to establish a gold mining operation, including three mine pits and associated mining related infrastructure. A previous clearing permit (CPS 6635/1) was granted to Bullseye Mining Limited for this project at the same site, however the permit has expired. Clearing permit CPS 6635/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 20 August 2015 and was valid from 12 September 2015 to 30 September 2018. The permit authorised the clearing of up to 362.2 hectares of native vegetation within a boundary of approximately 362.2 hectares, for the purpose of mineral production and associated activities. However, the project did not proceed at that time and no clearing was undertaken under CPS 6635/1. The current clearing permit application area (CPS 8971/1) covers the majority of the area covered by CPS 6635/1 and extends into additional areas surrounding the footprint of CPS 6635/1.

3. Assessment of application against Clearing Principles

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

Comments	<p>Proposal is not likely to be at variance to this Principle</p> <p>The clearing permit application area is located within the Eastern Murchison subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Murchison Bioregion (GIS Database). The Eastern Murchison subregion is characterised by broad plains of red-brown soils and breakaway complexes as well as red sandplains. The vegetation of this subregion is dominated by Mulga Woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and Halosarcia shrublands (CALM, 2002). The Eastern Murchison subregion supports a rich and diverse flora and fauna, however most species are wide ranging and not restricted to the subregion (CALM, 2002).</p> <p>Flora and vegetation surveys were conducted by Botanica Consulting (Botanica) over the greater Laverton Gold Project area, which included the current application area, during 2014 (Botanica, 2015). A total of 148 flora taxa were recorded within the broader survey area, representing 26 families and 56 Genera (Botanica, 2015).</p> <p>No Threatened flora, Threatened Ecological Communities or Priority Ecological Communities have been recorded within or in close proximity to the application area, and none were found during the survey (Botanica, 2015; 2020; GIS Database;).</p> <p>A desktop survey identified eighteen Priority flora species with the potential to occur within the broader survey area, based on known distributions and habitat preferences (Botanica, 2015). Two of these species, <i>Grevillea inconspicua</i> (Priority 4) and <i>Eremophila pungens</i> (Priority 4) were recorded during the flora survey. One population of <i>Grevillea inconspicua</i> was recorded within the current clearing permit application area (Botanica, 2015; 2020). However, <i>Grevillea inconspicua</i> has a relatively broad distribution across the Murchison bioregion (Western Australian Herbarium, 2020), and the proposed clearing is unlikely to impact the conservation status of this species.</p> <p>The vegetation condition within the application area ranged from Good to Very Good, with parts of the survey area previously disturbed by access tracks and mineral exploration activities (Botanica, 2020).</p> <p>The application area falls within the Melrose pastoral lease (GIS Database), and previous vegetation disturbance has occurred from pastoral activities, including weed invasion in some areas (Botanica, 2015; 2020). Two weed species were recorded during the flora surveys; <i>Citrullus amarus</i> (Pie Melon) and <i>Cucumis myriocarpus</i> (Prickly Paddy Melon) (Botanica, 2015). Weeds have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.</p> <p>A Level 1 fauna survey was conducted over the application area and adjacent areas by consulting zoologist Greg Harewood in October 2014, comprising of a desktop review and a five day reconnaissance field survey (Harewood, 2015). The desktop survey identified 218 native fauna species with the potential to occur within the survey area, including seven frogs, 86 reptiles, 110 birds and 15 mammal species. The field survey recorded a total of 80 native fauna species and six introduced fauna species (Harewood, 2015). Harewood (2015) reported that the fauna assemblage within the survey area was typical of the region.</p> <p>The desktop survey identified 14 fauna species (mostly birds) of conservation significance, with the potential to</p>
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occur within the survey area based on known distributions (Harewood, 2015). Of these, the following five species were considered most likely to occur within the survey area, based on habitat preferences: *Ardeotis australis*, Australian Bustard; *Falco peregrinus*, Peregrine Falcon; *Merops ornatus*, Rainbow Bee-eater; *Amytornis striatus*, Striated Grasswren (sandplain); and *Dasyercus blythi*, Brush-tailed Mulgara (Harewood, 2015). However no fauna species of conservation significance were recorded during the survey (Harewood, 2015).

The Murchison Bioregion remains largely uncleared (Government of Western Australia, 2019), and the landforms, vegetation associations and fauna habitat types found within the application area are well represented within the region (Botanica, 2015; 2020; Harewood, 2015; GIS Database). The application area is unlikely to represent an area of higher biodiversity than surrounding areas, in either a local or regional context.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Botanica (2015)
Botanica (2020)
CALM (2002)
Government of Western Australia (2019)
Harewood (2015)
Western Australian Herbarium (2020)

GIS Database:
- IBRA Australia
- Pre-European Vegetation
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers
- Threatened and Priority Flora
- Threatened Fauna

(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.

Comments Proposal is not likely to be at variance to this Principle

A Level 1 fauna and habitat survey was conducted over the application area and surrounding areas in October 2014 (Harewood, 2015). The survey comprised a desktop search of relevant fauna databases and a field reconnaissance survey.

Botanica has reviewed the fauna survey report and compiled the results relevant to the current clearing permit application area (Botanica 2020). The following fauna habitats have been recorded within the application area (Botanica, 2020; Harewood, 2015):

1. Clay-Loam Plains: Low forests to open low woodlands of *Acacia* or *Hakea* over low scrub / dwarf scrub over low grass;
2. Rocky Hillslopes: Low woodlands of *Acacia* or *Hakea* over low scrub / open low scrub / dwarf scrub of mixed species;
3. Rocky Plains: Low woodlands of *Acacia* over low scrub / open low scrub over dwarf scrub or mixed chenopods;
4. Open Depressions: Low woodland / Forest of *Acacia* over open low scrub and low grass;

None of these habitat types are restricted to either the clearing permit application area or the broader survey area (Harewood, 2015).

Opportunistic fauna observations, and a series of transects were conducted throughout the survey area, representing the main habitat types. Targeted searches for conservation significant fauna were also conducted, by traversing areas of suitable habitat.

Although no conservation significant fauna species were recorded during the survey, it was considered that some may occur within the survey area (Harewood, 2015). However, the majority of these species are highly mobile (mostly birds) and all have wide distributions, and they are unlikely to be specifically dependant on the habitats within the application area (Harewood, 2015).

The majority of fauna habitats found within the application area are relatively common and widespread in the region (Botanica, 2020; Harewood, 2015; GIS Database). The vegetation proposed to be cleared is unlikely to represent significant habitat for fauna in a regional context.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Botanica (2015)
Botanica (2020)
Harewood (2015)

GIS Database:
- Imagery
- Pre-European Vegetation
- Threatened Fauna

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

Comments Proposal is not likely to be at variance to this Principle

There are no known records of Threatened flora within the application area (GIS Database). Flora surveys of the application area did not record any species of Threatened flora (Botanica, 2015; 2020).

The vegetation associations within the application area are common and widespread within the region (Botanica, 2015; 2020; GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened (rare) flora.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Botanica (2015)
Botanica (2020)

GIS Database:
- Pre-European Vegetation
- Threatened and Priority 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.

Comments Proposal is not likely to be at variance to this Principle

There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (GIS Database).

A flora and vegetation survey of the application area did not identify any TECs (Botanica, 2015; 2020; GIS Database).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Botanica (2015)
Botanica (2020)

GIS Database:
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

(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.

Comments Proposal is not at variance to this Principle

The application area falls within the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Murchison Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations 18: Low woodland; mulga (*Acacia aneura*); and 39: Shrublands; mulga scrub (GIS Database). Approximately 99% of the pre-European extent of each of these vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2019).

Therefore, the application area does not represent a significant remnant of native vegetation in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA managed lands
IBRA Bioregion – Murchison	28,120,586	28,044,823	~ 99	Least Concern	7.78
Beard vegetation associations – WA					
18	19,892,306	19,843,148	~ 99	Least Concern	6.62
39	6,613,567	6,602,578	~ 99	Least Concern	12.02
Beard vegetation associations – Murchison Bioregion					
18	12,403,172	12,363,252	~ 99	Least Concern	4.96
39	1,148,400	1,138,064	~ 99	Least Concern	3.56

* Government of Western Australia (2019)

** Department of Natural Resources and Environment (2002)

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology Department of Natural Resources and Environment (2002)
Government of Western Australia (2019)

GIS Database:
- IBRA Australia
- Pre-European Vegetation

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

Comments Proposal is at variance to this Principle

There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database).

Several minor seasonal creek line passes through the application area (GIS Database). Seasonal drainage lines are common in the region and are dry for most of the year, only flowing briefly immediately following significant rainfall (Botanica, 2020).

One vegetation association within the application area was described as being associated with ephemeral drainage: “Low woodland / Forest of *Acacia caesaneura* / *A. incurvaneura* over open mixed low scrub of *Acacia* / *Eremophila* / *Sida* spp. and low grass of *Eragrostis eriopoda* / *Eriachne* spp. in drainage depression” (Botanica 2015; 2020). This vegetation association represented approximately 17 percent of the application area (Botanica, 2020).

Based on the above, the proposed clearing is at variance to this Principle. Potential impacts to vegetation growing in association with these watercourses, and vegetation downstream from the application area, may be minimised by the implementation of a watercourse management condition.

Methodology Botanica (2015)
Botanica (2020)

GIS Database:
- Hydrography, Lakes
- Hydrography, linear

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

Comments Proposal may be at variance to this Principle

The application area lies within the Ararak, Brooking, Jundee, Laverton, Nubev and Violet, land systems (GIS Database). These land systems have been mapped and described in technical bulletins produced by the former Department of Agriculture (now the Department of Primary Industries and Regional Development).

The Ararak land system consists of broad plains with mantles of ironstone gravel supporting mulga shrublands with wanderrie grasses (Pringle et. al., 1994). This land system is not generally susceptible to erosion (Pringle et. al., 1994).

The Brooking land system includes linear rocky ridges supporting mulga shrublands, often with incised narrow drainage tracts, and with occasional minor halophytic communities. Minor soil erosion may occur if stony

mantles are disturbed (Pringle et. al., 1994).

The Jundee land system consists of hardpan plains with ironstone gravel mantles, supporting mulga shrublands (Pringle et. al., 1994). Gravel mantles generally provide effective protection against soil erosion, however impedance to natural sheet flows can initiate soil erosion and cause water starvation to vegetation downslope (Pringle et. al., 1994).

The Laverton land system is dominated by greenstone hills and ridges supporting acacia shrublands (Pringle et. al., 1994). Stony mantles protect most of this land system from erosion, with the exception of narrow drainage tracts which may be mildly susceptible to water erosion (Pringle et. al., 1994).

The Nubev land system is described as gently undulating stony plains, minor low rises and drainage floors, supporting mulga and halophytic shrublands (Pringle et. al., 1994). This land system may be moderately susceptible to erosion if vegetation cover or stony mantles are removed (Pringle et. al., 1994).

The Violet land system is described as undulating stony and gravelly plains and low rises, supporting mulga shrublands (Pringle et. al., 1994). While generally resistant to erosion, this land system may be moderately susceptible to water erosion if stony mantles are removed (Pringle et. al., 1994).

Based on the above, the proposed clearing may be at variance to this Principle. Potential land degradation as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

Methodology Pringle et. al. (1994)

GIS Database:
- Landsystem Rangelands

(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.

Comments **Proposal is not likely to be at variance to this Principle**

There are no conservation areas in the vicinity of the application area. The nearest DBCA (formerly DPaW) managed land is the Wanjarri Nature Reserve (Class A), which is located approximately 55 kilometres west of the application area, at its nearest point (GIS Database). The proposed clearing is unlikely to have any impacts on the environmental values of this or any other conservation area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- DPaW Tenure

(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.

Comments **Proposal is not likely to be at variance to this Principle**

There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall. The proposed clearing is unlikely to result in significant changes to surface water flows.

The proposed clearing is unlikely to cause deterioration in the quality of underground water.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology GIS Database:
- Hydrography, Linear
- Hydrography, Linear
- Public Drinking Water Source Areas

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

Comments **Proposal is not likely to be at variance to this Principle**

The climate of the region is semi-arid, with a low average rainfall of approximately 200 millimetres per year (Botanica, 2020; CALM, 2002). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2002).

There are no permanent water courses or waterbodies within the application area (GIS Database). Several minor seasonal water courses pass through the application area (Botanica, 2020; GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy

rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

Methodology Botanica (2020)
CALM (2002)

GIS Database:

- Hydrography, lakes
- Hydrography, linear

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

Comments

The clearing permit application was advertised on 3 August 2020 by the Department of Mines, Industry Regulation and Safety (DMIRS), inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WC2018/007) over the area under application (DPLH, 2020). This claim has been determined by the Federal Court on behalf of the claimant group (DPLH, 2020). 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 no registered Aboriginal Sites of Significance within the application area (DPLH, 2020). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

Methodology DPLH (2020)

4. References

- Botanica (2015) Level 2 Flora and Vegetation Survey. Laverton Gold Project. Report prepared for Bullseye Mining Limited. Botanica Consulting, January 2015.
- Botanica (2020) Environmental Assessment North Laverton Gold Project Clearing Permit Application L37/144, M37/108, M37/519, M37/1167 and M37/1309. Report prepared for Bullseye Mining Limited, by Botanica Consulting, July 2020.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DPLH (2020) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 8 September 2020).
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- 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, Perth. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Harewood, G. (2015) Fauna Assessment: Laverton Gold Project. Report prepared for Bullseye Mining Limited, by G Harewood. May 2015.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Pringle, H.J.R., Van Vreeswyk, A.M.E., and Gilligan, S.A. (1994) An Inventory and Condition Survey of the north-eastern Goldfields, Western Australia. Department of Agriculture, Western Australia.
- Western Australian Herbarium (2020) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <https://florabase.dpaw.wa.gov.au/> (Accessed 8 September 2020).

5. 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)
DAWE	Department of Agriculture, Water and the Environment, Australian Government
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
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)
DoE	Department of the Environment, Australian Government (now DAWE)
DoEE	Department of the Environment and Energy (now DAWE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DAWE)
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.