



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 7635/1

Permit type: Purpose

### 1.2. Proponent details

Proponent's name: MacPhersons Reward Pty Ltd

### 1.3. Property details

Property: Mining Lease 15/40  
Mining Lease 15/128

Local Government Area: Shire of Coolgardie

Colloquial name: Coolgardie Gold Project

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
105.1		Mechanical Removal	Mineral production

### 1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 10 August 2017

## 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. The clearing permit application area has been broadly mapped as the following Beard vegetation association (GIS Database):

9: Medium woodland; Coral gum (*Eucalyptus torquata*) and Goldfields blackbutt (*E. lesouefii*).

A flora and vegetation survey was undertaken over part of the application area by Jenny Borger Botanical Consulting (JBBC)(2016) during 18 - 20 October 2016. A total of 14 vegetation types were identified within the application area.

- Lower slopes, plains** - *Eucalyptus clelandii* low woodland with occasional *E. griffithsii* over *Eremophila interstans*, *E. parviflora*, *E. glabra*, *E. scoparia*, *Olearia muelleri*, *Senna artemisioides*, *Scaevola spinescens*; small areas of *Eremophila interstans*, *E. oppositifolia* tall open shrubland,
- Lower slopes** - *Eucalyptus griffithsii* open forest to low woodland over *Eremophila* spp. tall sparse shrubland over *Atriplex* spp., *Olearia muelleri*, *Ptilotus obovatus* low open shrubland,
- Lower to mid-slopes** - *Eucalyptus celastroides* subsp. *celastroides* low woodland to open woodland over a low mixed shrubland,
- Lower slopes** - *Eucalyptus torquata* low open forest to low woodland over *Eremophila* spp., *Dodonaea stenozyga*, *Olearia muelleri*, *Acacia hemiteles*, *A. erinacea* sparse shrubland,
- Plains, low rises** - *Eucalyptus longissima* low open forest to tall open mallee woodland over *Acacia hemiteles*, *Eremophila scoparia*, *Atriplex nummularia*, *Senna artemisioides*, *Cratystylis conocephala*, *Acacia calcarata* open shrubland,
- Broad drainage lines** - *Eucalyptus griffithsii* isolated trees over *Atriplex nummularia*, *A. vesicaria*, *Eremophila alternifolia*, *Lycium australe* open to sparse shrubland,
- Plain with low stoney rises** - *Eucalyptus griffithsii*, and occ. *E. celastroides* open mallee woodland to isolated mallee over *Acacia burkittii*, *Bertya dimerostigma*, *Eremophila decipiens*, *E. oppositifolia*, *E. glabra*, *Dodonaea lobulata* tall shrubland,
- Plain** - *Eucalyptus salmonophloia* open forest to open woodland,
- Lower & midslopes** - *Eucalyptus campaspe*, *E. griffithsii* low open forest over *Eremophila interstans* isolated tall shrubs over *Atriplex* spp. and *Eremophila* spp.,
- Mid to upper slopes** - *Eucalyptus campaspe*, *E. clelandii*, *E. celastroides* low woodland to open woodland over *Eremophila* spp., *Exocarpos aphyllus*, *Senna artemisioides*, *Santalum acuminatum* tall open shrubland,
- Ridges of rocky hills** - *Eucalyptus griffithsii* low open woodland to isolated trees over *Eremophila oldfieldii* subsp. *angustifolia*, *E. decipiens*, *E. interstans*, *Exocarpos aphyllus* tall sparse shrubland to open shrubland over *Acacia erinacea*, *Dodonaea lobulata*, *Acacia tetragonophylla* open shrubland,
- Valley; midslope** - *Casuarina pauper* isolated low trees over mixed shrubland; semi mature regrowth,
- Upper slopes rocky hills** - *Eucalyptus torquata*, *E. griffithsii* low open forest over *Eremophila oldfieldii* subsp. *angustifolia*, *Santalum spicatum* tall open shrubland over *Dodonaea* and *Eremophila* spp., *Grevillea acuarua* open shrubland; areas of *Eremophila* tall shrubland,

14. **Lower slopes & plain** - *Eucalyptus griffithsii*, *E. celastroides* &/or *E. torquata* mallee woodlands over *Allocasuarina helmsii*, *Eremophila interstans*, *Acacia densiflora*, *Santalum spicatum* isolated tall shrubs over *Allocasuarina helmsii*, *Acacia hemiteles*, *Westringia rigida* low shrubs over *Triodia scariosa* open tussock grassland.

<b>Clearing Description</b>	Coolgardie Gold Project. MacPhersons Reward Pty Ltd proposes to clear up to 105.1 hectares of native vegetation within a total boundary of approximately 200 hectares, for the purpose of mineral production. The project is located approximately 6 kilometres south-east of Coolgardie, in the Shire of Coolgardie.
<b>Vegetation Condition</b>	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994);  to:  Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).
<b>Comment</b>	The application area has been previously disturbed by historical and current mining activities, historical pastoral activities, vegetation clearing, (including timber harvesting and grazing) and disturbance by rabbits and goats (JBBC, 2016).

### 3. Assessment of application against clearing principles

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

<b>Comments</b>	<p><b>Proposal is not likely to be at variance to this Principle</b></p> <p>The application area is located within the Eastern Goldfield sub-region of the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). The Eastern Goldfield subregion is characterised by subdued relief and consists of undulating plains, low hills and ridges of Archaean greenstones and basic granulite. Calcareous earths are the dominant soil group. The vegetation of the bioregion includes Mallees, Acacia thickets and shrub-heaths on sandplains (CALM, 2002).</p> <p>According to available databases, there are no Threatened Ecological Communities (TEC's) or Priority Ecological Communities (PEC's) occurring within or near the application area (GIS Database). JBBC, (2016) reported no vegetation communities considered to be a TEC or PEC within or near the application area. The vegetation communities within the application area are typical of the local region and not considered to be unusually diverse (Primary Gold Ltd, 2017). The area proposed to be cleared is not considered to be remnant vegetation and areas have been disturbed by historical mining activities (JBBC, 2016; GIS Database).</p> <p>JBBC (2016) conducted a Level 2 flora and vegetation survey over the application area and identified 14 vegetation communities with 78 flora taxa representing 21 families and 34 genera. A search of available databases was undertaken and no records of Threatened or Priority flora were recorded within the application area (GIS Database). The flora and vegetation survey of the application area did not record any Threatened or Priority flora species (JBBC, 2016).</p> <p>Three (introduced) weed species were identified by JBBC (2016) within the application area. Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.</p> <p>A search of biological databases revealed records of 161 fauna species within a 25 kilometre area. The fauna survey recorded 28 fauna species, comprising of 20 avifauna species, four reptiles and five mammals, which included three feral species. No species of conservation significance were identified during the fauna survey (JBBC, 2016). There are no known records of Threatened fauna within the application area (GIS Database).</p> <p>The fauna habitats are widespread in the local area and region area and are not restricted to the application area (Primary Gold Ltd, 2017). No conservation significant fauna species are endemic to the region (Primary Gold Ltd, 2017). There is a low probability of conservation significant species being present in the application area as the habitat is not suitable or large areas of suitable habitat are located nearby. The faunal assemblages are unlikely to be different to those found in similar habitat located elsewhere in the region (Primary Gold Ltd, 2017; GIS Database).</p> <p>A small proportion of the vegetation of the application area has been previously disturbed and the vegetation proposed to be cleared is well represented in the surrounding area (Government of Western Australia, 2016; GIS Database). It is unlikely the proposal will result in the clearing of native vegetation that has high biodiversity values.</p> <p>Based on the above, the proposed clearing is not likely to be at variance to this Principle.</p>
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<b>Methodology</b>	CALM (2002) Government of Western Australia (2016) JBBC (2016) Keighery (1994)
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GIS Database:

- Threatened Fauna
- Threatened and Priority Flora
- TEC/PEC – Buffer
- TEC/PEC – Boundaries

**(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 survey was conducted over the application area during October 2016 by JBBC (2016). The fauna survey recorded 28 fauna species, comprising of 20 avifauna species, four reptiles and five mammals, which included three feral species. No species of conservation significance were identified during the fauna survey (JBBC, 2016). There are no known records of Threatened fauna within the application area (GIS Database).

JBBC (2016) found that the Plain, Broad Drainage Line and Ridges of Rocky Hills habitats were the most extensive over the application area. The main vegetation types which may be suitable for fauna habitat include Vegetation Type 9, Vegetation Type 7 and Vegetation Type 12 (JBBC, 2016). Birds could potentially use the application area and adjoining areas for foraging, roosting and possibly breeding. However given the high mobility of these bird species and the large amount of suitable habitat in the surrounding area, it is unlikely that the proposed clearing will impact avian species or available habitat. The application area does not contain habitats or faunal assemblages that are ecologically significant, and the fauna assemblage of the study area is considered common and typical of the region (JBBC 2016; GIS Database).

The Rainbow Bee-eater (*Merops ornatus*) (Marine) was previously located in the area (JBBC, 2016). Potential foraging habitat is present in the application area for the Rainbow Bee-eater; however, no Rainbow Bee-eater individuals were recorded during the fauna survey (JBBC, 2016). It is unlikely Rainbow Bee-eater individuals would rely solely on the application area as the application area contains cleared vegetation and has been subjected to previous disturbance. The species also require close proximity to a permanent water source (DotEE, 2017). No permanent water sources are located in or near the application area and the soil substrate is unsuitable for burrow construction (Primary Gold Ltd, 2017). Rainbow Bee-eaters are also highly mobile and widely distributed around Australia, therefore the application area is not considered to be significant habitat for the species (DotEE, 2017).

Potential Malleefowl (*Leipoa ocellata* – Vulnerable) habitat may occur in the application area. Three disused Malleefowl mounds were recorded in the application area in areas of mallee woodland dominated by *Eucalyptus griffithsii* over *Acacia burketti* or *Eucalyptus torquata*, *E. griffithsii* over *Acacia hemiteles* (JBBC, 2016). However, these disused mounds have not been occupied in more than 20 years and were determined to be extinct by JBBC (2016). No Malleefowl individuals, tracks, feathers or breeding areas were recorded during the fauna survey (JBBC, 2016). It is unlikely that the species would depend on this area, given the large areas of suitable fauna habitat located nearby and in surrounding areas. Given the relatively small clearing footprint of the application area in the context of the greater region, it is unlikely that clearing activities would significantly impact Malleefowl.

Riparian vegetation within the Broad Drainage Line habitat may provide important habitat for fauna, as the vegetation can provide faunal habitat of a moderate range of microhabitats with logs, leaf litter and tree hollows (GIS Database). Provided disturbance to riparian habitats is avoided or minimised where possible, and strict weed hygiene procedures are followed, the proposed works are not expected to substantially impact this vegetation type. Potential impacts to riparian vegetation may be minimised through the implementation of a vegetation management condition.

The application area contains previously cleared vegetation and areas disturbed by mining activities which do not contain valuable fauna habitat. The area proposed to be cleared does not contain habitat critical for fauna species and the proposed clearing will not impact significant fauna habitat.

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

**Methodology** DotEE (2017)  
JBBC (2016)  
Primary Gold (2017)

GIS Database:  
- 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**

A search of available databases was undertaken and no Threatened flora have been recorded in the application area (GIS Database). A flora survey was also undertaken by JBBC (2016) which did not record species of Threatened flora in the application area. The native vegetation proposed to be cleared is not likely to contain or is not necessary for the continued existence of rare flora.

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

**Methodology JBBC (2016)**

GIS Database:  
- 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**

A search of the available databases showed that there are no known Threatened Ecological Communities (TEC's) located within the application area (GIS Database). JBBC (2016) reported no vegetation communities considered to be a TEC within or near the application area as a result of the flora survey (JBBC, 2016).

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

**Methodology JBBC (2016)**

GIS Database:  
- TEC/PEC - Buffers  
- TEC/PEC - Boundaries

**(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 areas fall within the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). The vegetation within the application areas is recorded as:

9: Medium woodland; Coral gum (*Eucalyptus torquata*) and Goldfields blackbutt (*E. lesouefii*).

The above Beard vegetation association retains approximately 97% or above of the pre-European extent at the state level and over 96% at the bioregional level (Government of Western Australia, 2016). The areas proposed to be cleared are not a significant remnant of native vegetation.

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

**Methodology Government of Western Australia (2016)**

GIS Database:  
- IBRA WA (Regions - Sub Regions)  
- 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**

According to the available databases, two, minor, ephemeral watercourses intersect the application area (GIS Database). The proposed haul road intersects the watercourse located in the southern part of the application area. The northern drainage line intersects the area of the proposed MacPhersons Reward Waste Rock Dump extension (JBBC, 2016; GIS Database). Based on vegetation mapping by JBBC (2016), one vegetation type (Vegetation Type 7; Broad drainage lines) is identified to grow in association with a watercourse (JBBC, 2016).

JBBC (2016) reports that the two watercourses have been subjected to high levels of disturbance over long periods of time. In particular, drainage into the northern watercourse has been compromised from historical mining. Primary Gold Ltd (2017) reports that following a surface water assessment of the application area, mining infrastructure, including waste rock dumps and haul roads have been positioned to minimise disturbance to watercourses (Primary Gold Ltd, 2017).

As these watercourses have been highly disturbed are only likely to inundate following significant rainfall or cyclonic events, the proposed clearing is unlikely to result in any significant impact to any watercourse or wetland provided natural surface water flow patterns are not disturbed. Potential impacts to riparian vegetation

may be minimised through the implementation of a vegetation management condition.

Based on the above, the proposed clearing is at variance to this Principle.

**Methodology** JBBC (2016)  
Primary Gold Ltd (2017)

GIS Database:  
- Hydrography, linear

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

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

Northcote, et al. (1960-68) describe soils in the application area as shallow, calcareous, loamy soils with shallow, grey-brown calcareous earths to alkaline red earths with limestone on gently undulating valley plains and pediments (GIS Database). These soils do not readily erode but may be subjected to minor wind erosion once vegetation has been cleared. Localised surface water run-off may occur following heavy rainfall events and if surface water drainage on-site is not managed. It is unlikely the proposal will change soil salinity levels or impact on-site or off-site nutrient export. MacPhersons Reward Pty Ltd have proposed a progressive approach to land clearing and rehabilitation to stabilise surfaces during operations and closure (Primary Gold Ltd, 2017). Clearing activities are not likely to cause adverse land degradation impacts.

It is unlikely that the amount of clearing required for the proposal (105.1 hectares) within a 200 hectare boundary area will cause appreciable land degradation.

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

**Methodology** Northcote, et al. (1960-68)  
Primary Gold Ltd (2017)

GIS Database:  
-Groundwater Sallinity, Statewide  
- Hydrography, linear

**(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 at variance to this Principle**

The application area does not lie within any conservation areas or Department of Biodiveristy, Conservation and Attractions managed lands (JBBC, 2016; GIS Database). The nearest conservation area is Kangaroo Hills Timber Reserve which is located approximately 3.5 kilometres west of the application area (GIS Database). As this conservation area is located a considerable distance from the application area, the proposed clearing is not likely to have any impacts on the environmental values of this or any other conservation area.

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

**Methodology** JBBC (2016)

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**

The application area is not located within a Public Drinking Water Source Area (GIS Database). The annual evaporation rate (2,400 millimetres) significantly exceeds the annual average rainfall (265 millimetres) for the local area (BoM, 2017; GIS Database). Any surface water within the application area is likely to only remain for short periods following significant rainfall events. The proposed clearing is not likely to cause deterioration in the quality of any surface water within or outside of the application area.

The application area has a groundwater salinity that ranges from 6,500 to 18,400 milligrams/Litre Total Dissolved solids (TDS) (Primary Gold Ltd; GIS Database). With high annual evaporation rates and low annual rainfall, there is little recharge into regional groundwater. The proposed clearing is unlikely to further deteriorate the quality of underground water (GIS Database).

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

**Methodology** BoM (2017)  
Primary Gold Ltd (2017)

- GIS Database:
- Groundwater Salinity, Statewide
  - 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**

Given the proposed clearing area of 105.1 hectares in relation to the size of the application area (200 hectares) (GIS Database), the clearing is not likely to increase the potential of flooding on a local or catchment scale.

With low average annual rainfall and a high average annual evaporation rate there is likely to be little surface flow during normal seasonal rains (BoM, 2017). Whilst large rainfall events may result in flooding of the area, the proposed clearing is not likely to lead to an increase in incidence or intensity of flooding. Surface water runoff from cleared areas will be managed within mine site drainage systems (Primary Gold Ltd, 2017).

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

**Methodology** BoM (2017)  
Primary Gold Ltd (2017)

GIS Database:  
- Hydrography, linear

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

**Comments** One Native Title claim has been lodged (WC2017001) over the area under application (DPLAH, 2017). 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 (DPLAH, 2017). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act, 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

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

The application was advertised on 3 July 2017 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. One submission was received which did not object to this application. The submission was in relation to heritage impacts which have been addressed by the applicant.

**Methodology** DPLAH (2017)

**4. References**

- BoM (2017) Climate Statistics for Australian Locations. A Search for Climate Statistics for Kalgoorlie-Boulder Airport, Australian Government Bureau of Meteorology. <http://www.bom.gov.au/climate/data/?ref=ftr> (Accessed 7 August 2017).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Coolgardie (COO3 – Eastern Goldfield subregion) Department of Conservation and Land Management, Perth, Western Australia.
- DotEE (2017) *Merops ornatus* in Species Profile and Threats Database. Department of the Environment and Energy. <http://www.environment.gov.au/sprat>. Department of the Environment and Energy, Canberra. (Accessed 7 August 2017).
- DPLAH (2017) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <https://maps.daa.wa.gov.au/ahis/> (Accessed 31 July 2017).
- Government of Western Australia (2016) 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2016. WA Department of Parks and Wildlife, Perth.
- JBBC (2016) MacPhersons Reward Level 2 Flora And Vegetation Survey, Level 1 Fauna Survey with Targeted Malleefowl Survey. Report Prepared for Primary Gold Ltd by Jenny Borger Botanical Consulting, October 2016.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G. G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Primary Gold Ltd (2017) Supporting Information for a Native Vegetation Clearing permit Application, Coolgardie Project M15/40 and M15/128, MacPhersons Reward Pty Ltd, June 2017.

## 5. Glossary

### Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLAH)
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)
DotEE	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
DPLAH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DotEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
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>Environmental 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:

{DPaW (2017) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T	<b>Threatened species:</b> Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).  <b>Threatened fauna</b> is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act.  <b>Threatened flora</b> is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the Wildlife Conservation Act.  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	<b>Critically endangered species</b> Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
EN	<b>Endangered species</b> Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
VU	<b>Vulnerable species</b> Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i> , in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
EX	<b>Presumed extinct species</b> Species which have been adequately searched for and there is no reasonable doubt that the last

individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.

- IA Migratory birds protected under an international agreement**  
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 the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- CD Conservation dependent fauna**  
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- OS Other specially protected fauna**  
Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P Priority species**  
Species which are poorly known; or  
Species that are adequately known, are rare but not threatened, and 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.

