



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 7244/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Silver Lake Resources (Integra) Pty Ltd

### 1.3. Property details

Property: Mining Lease 28/43  
Miscellaneous Licence 25/46

Colloquial name: Randell's Gold Project

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 20 October 2016

## 2. Background

### 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. Seven Beard vegetation associations are located within the application area (GIS Database):

24: Low woodland; *Allocasuarina cristata*

481: Mosaic: Medium woodland; salmon gum & red mallee / Hummock grasslands, mallee steppe; red mallee over spinifex *Triodia scariosa*

501: Medium woodland; goldfields blackbutt

505: Low woodland; *Allocasuarina cristata* & *eucalypts*

506: Succulent steppe with woodland; salmon gum & bluebush

529: Succulent steppe with open low woodland; mulga & sheoak over bluebush

1241: Succulent steppe; bluebush

A flora and vegetation survey was undertaken on Miscellaneous Licence 25/46 (part of the application area) by Botanica Consulting on 27 November 2014 (Botanica Consulting, 2014). Eighteen vegetation units were recorded:

**EsOW:** *Eucalyptus salmonophloia* Open Woodland over *Eremophila oldfieldii* subsp. *angustifolia* Tall Open Shrubland over *Maireana pyramidata* Low Shrubland in ephemeral drainage line/floodplain

**EsWEgTM:** *Eucalyptus salmonophloia* Woodland/*E. griffithsii* Tree Mallee over *Acacia quadrimarginea* Tall Open Shrubland over *Maireana pyramidata* and *Maireana sedifolia* Low Open Shrubland on quartz/ironstone rocky hillslope.

**EsEmW:** *Eucalyptus salmonophloia* ± *E. moderata* Woodland over *Maireana sedifolia*, *M. triptera*, *Atriplex nummularia* Low Open Shrubland over *Sclerolaena* spp., *Austrostipa* spp. and *Sida spodochroma* Scattered Grasses/Herbs on clay-loam plain

**Eg(Ec)TM:** *Eucalyptus griffithsii* (± *E. celastroides*) Tree Mallee or Woodland over *Eremophila oldfieldii* subsp. *angustifolia* Tall Open Shrubland over *Maireana sedifolia* Low Open Shrubland on clay-loam plain

**EsW:** *Eucalyptus salmonophloia* Woodland over *Dodonaea lobulata*, *Senna artemisioides* subsp. *filifolia* and *Ptilotus obovatus* Low Shrubland in ephemeral drainage line

**CpW:** *Casuarina pauper* Low Woodland over *Eremophila oldfieldii* subsp. *angustifolia* Tall Open Shrubland over *Maireana sedifolia* Low Shrubland

**CpOLWEgTM:** *Casuarina pauper* Open Low Woodland and *E. griffithsii* Tree Mallee over *Acacia tetragonophylla*, *A. quadrimarginea* and *Eremophila alternifolia* Tall Open Shrubland over *Maireana sedifolia* Low Shrubland over *Austrostipa/Enneapogon* spp. Scattered Grasses on calcrete rocky hillslope.

**AbEaTSL:** *Acacia burkittii* ± *Eremophila alternifolia* Low Woodland to Tall Shrubland over *Dodonaea lobulata/Maireana triptera* and *M. sedifolia* Low Open Shrubland on low broad ridge.

**EIEoW1:** *Eucalyptus lesouefii* ± *E. oleosa* Woodland over *Eremophila interstans* subsp. *virgata* and *Maireana sedifolia* Low Open Shrubland on clay-loam plain.

**EIEoW2:** *Eucalyptus lesouefii* ± *E. oleosa* Woodland over *Eremophila scoparia*, *Senna artemisioides* subsp. *filifolia* and *Maireana sedifolia* Low Open Shrubland on rocky hillslope.

**CpLW:** *Casuarina pauper* Low Woodland over *Eremophila alternifolia* and *Senna artemisioides* subsp. *filifolia* Low Open Shrubland over *Mariana sedifolia* Low Shrubland on clay-loam plain.

**AcEaLOW:** *Acacia caesaneura* ± *Eremophila alternifolia* Low Open Woodland over *Maireana sedifolia*, *Maireana triptera* and *Ptilotus obovatus* Low Open Shrubland over *Enneapogon* spp. and *Austrostipa* spp. Scattered Grasses on clay-loam plain

**AcLOW:** *Acacia caesaneura* Low Open Woodland over *A. tetragonophylla* ± *Eremophila alternifolia* Tall Open Shrubland over *Maireana pyramidata* Low Shrubland in ephemeral drainage line/floodplain.

**AqLOW:** *Acacia quadrimarginea* Low Open Woodland over *A. tetragonophylla* ± *Dodonaea lobulata* Tall Shrubland over *Maireana sedifolia* and *Ptilotus obovatus* Low Shrubland on broad ridge

**EeEgTM:** *Eucalyptus ewartiana* ± *E. griffithsii* Tree Mallee over *A. tetragonophylla* ± *Dodonaea lobulata* Tall Shrubland over *Maireana sedifolia* and *Ptilotus obovatus* Low Shrubland on ironstone/quartz rocky hillslope.

**AtEoTOS:** *Acacia tetragonophylla* ± *Eremophila oldfieldii* subsp. *angustifolia* Tall Open Shrubland over *Maireana sedifolia* Low Shrubland over *Enneapogon caerulescens* Scattered Grass in ephemeral drainage line/floodplain.

**CpLWEgTM:** *Casuarina pauper* Low Woodland/*Eucalyptus griffithsii* Tree Mallee over *Atriplex nummularia*, *Dodonaea lobulata* and *Ptilotus obovatus* Low Shrubland on quartz rocky hillslope.

**MpTOS:** *Myoporum platycarpum* Tall Open Shrubland over *Eremophila scoparia*, *Maireana sedifolia* and *Senna artemisioides* subsp. *filifolia* Low Shrubland over *Austrostipa nitida* and *Enneapogon caerulescens* Scattered Grasses on clay-loam plain.

A separate flora and vegetation survey was undertaken over Mining Lease 28/43 inclusive of the remaining part of the application area in May, June and October of 2012 (Outback Ecology Services, 2013). This survey was of a much larger area than the application area and as such isolated vegetation mapping of the application area has not been provided.

<b>Clearing Description</b>	Randall's Gold Project Silver Lake Resources (Integra) Ltd proposes to clear up to 120 hectares of native vegetation within a total boundary of approximately 947.14 hectares, for the purpose of mineral production. The project is located approximately 110 kilometres east of Kalgoorlie, in the City of Kalgoorlie Boulder.
<b>Vegetation Condition</b>	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Kieghery, 1994).  To  Completely Degraded: No longer intact; completely/almost completely without native species (Kieghery, 1994).
<b>Comment</b>	The vegetation condition within the application area was determined during flora and vegetation surveys undertaken by Botanica Consulting (2014) and Outback Ecology Services (2013). Sections of the application area are considered to be degraded as a result of previous mining and exploration activity (Botanica Consulting, 2014; Outback Ecology Services, 2013).

### 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>	<b>Proposal not likely to be at variance to this Principle</b> The application area is located within the Eastern Goldfields subregion of the Coolgardie Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). The vegetation is broadly described as Mallee's, <i>Acacia</i> thickets and shrubheaths on sandplains (CALM, 2002). Diverse <i>Eucalyptus</i> woodlands occur around salt lakes, on ranges, and in valleys and have been identified as having high species and ecosystem diversity (CALM, 2002).
-----------------	---

A flora and vegetation survey was undertaken over the Miscellaneous Licence portion of the application area by Botanica Consulting in November of 2014 (Botanica Consulting, 2014a). A total of 24 families, 50 genera and 86 taxa were identified (Botanica Consulting, 2014a). No Threatened or Priority flora were recorded during the survey (Botanica Consulting, 2014a). No Priority Ecological Communities (PECs) or Threatened Ecological Communities (TECs) are known to occur within the area and none were identified during the flora and vegetation survey (Botanica Consulting, 2014a; GIS Database).

A flora and vegetation survey was undertaken over the Aldiss Deposit (inclusive of Mining Lease 28/43) by Outback Ecology Services in May, June and October of 2012. A total of 167 species were identified (Outback Ecology Services, 2013). No Threatened or Priority flora were recorded during the survey (Outback Ecology Services, 2013). No PECs or TECs are known to occur within the area and none were identified during the flora and vegetation survey (Outback Ecology Services, 2013; GIS Database).

The vegetation associations identified within the application area are considered to be well represented in the surrounding area and are unlikely to act as significant habitat for fauna in the region (GIS Database, Government of Western Australia, 2015). The area has been disturbed to varying degrees by historical mining activity and drilling programs and a portion of the application is degraded vegetation (Botanica Consulting, 2014a; Outback Ecology Services, 2013).

Several weed species were recorded during the flora and vegetation surveys (Botanica Consulting, 2014; Outback Ecology Services, 2013). 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.

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

**methodology** Botanica Consulting (2014a)  
CALM (2002)  
Outback Ecology Services (2013)

GIS Database:  
- IBRA Australia  
- Pre-European Vegetation  
- Threatened Ecological Sites Buffered

**(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 not likely be at variance to this Principle**

A fauna survey was undertaken over the Miscellaneous Licence 25/46 portion of the application area by Botanica Consulting in November of 2014 (Botanica Consulting, 2014b). A total of 33 vertebrate fauna species were observed during the field survey, comprising 27 bird species, four native mammal species and two introduced mammal species (Botanica Consulting, 2014b). Based on available habitat, this portion of the application area is considered to have the potential to support four species of conservation significance (Botanica Consulting, 2014b):

- Peregrine Falcon (*Falco peregrinus*) – OS under the WC Act
- Rainbow Bee-eater (*Merops ornatus*) – IA under the EPBC Act
- Central Long-eared Bat (*Nyctophilus major tor*) – Priority 4 as listed by DPaW
- Western Rosella (*Platycercus icterotis xanthogenys*) – Priority 4 as listed by DPaW

The remaining portion of the application area (on Mining Lease 25/46) was surveyed by Terrestrial Ecosystems in September of 2012 (Terrestrial Ecosystems, 2012). Based on available habitat, this portion of the application area is considered to have the potential to support an additional two species of conservation significance to those listed above:

- Fork-tailed Swift (*Apus pacificus*) - IA under the EPBC Act
- Crested Shrike Tit (*Falcunculus frontatus*) – VU under the EPBC Act

The Rainbow Bee-eater and Peregrine Falcon are both wide ranging species and are not confined to a specific habitat. Given their large ranges significant impacts to these species as a result of the proposed clearing are considered unlikely.

Some habitat suitable for the Central Long-eared Bat, Western Rosella, Fork-tailed swift and Crested Shrike Tit may be impacted by the proposed clearing. However, these species are considered more likely to be irregular visitors to the area (Botanica Consulting, 2014b; Terrestrial Ecosystems, 2012). As such, impacts to these species are considered to be minor to negligible (Botanica Consulting, 2014b; Terrestrial Ecosystems, 2012).

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

**Methodology** Botanica Consulting (2014b)  
Terrestrial Ecosystems (2012)

GIS Database:  
- Imagery

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

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

According to available databases, there are no records of Threatened flora within the application area (GIS Database). No Threatened flora was recorded during flora and vegetation surveys of the application area (Botanica Consulting, 2014a; Outback Ecology Services, 2013).

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

**Methodology** Botanica Consulting (2014a)  
Outback Ecology Services (2013)

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**

No TECs are known to occur within the application area (GIS Database). Flora and vegetation surveys of the application area did not identify the presence of any TECs (Botanica Consulting, 2014a; Outback Ecology Services, 2013).

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

**Methodology** Botanica Consulting (2014a)  
Outback Ecology Services (2013)

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 occurs within the Coolgardie Interim Biogeographic Regionalisation of Australia (IBRA) bioregion in which approximately 97.96% of pre-European vegetation remains (GIS Database; Government of Western Australia, 2015).

The vegetation within the application area has been mapped as Beard vegetation associations, 24, 481, 501, 505, 506, 529, and 1241 (GIS Database). These Beard vegetation associations are all well represented at both a state and bioregional level, as shown in the table below (Government of Western Australia, 2015). Given the amount of vegetation remaining in the local area and bioregion, the vegetation proposed to be cleared is not considered to represent a remnant within an extensively cleared area.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW Managed Lands
IBRA Bioregion - Coolgardie	12,912,204.39	12,648,491.45	97.96	Least Concern	~ 16.39
Beard vegetation associations - State					
24	263,147.66	263,128.56	99.00	Least Concern	~ 1.37
481	809,698.65	809,600.87	99.99	Least Concern	~ 5.21
501	48,022.40	47,889.33	99.72	Least Concern	~ 14.09
505	7,847.48	7,847.44	100.00	Least Concern	~ 7.82
506	98,187.43	98,050.28	99.86	Least Concern	~ 12.80
529	102,579.86	102,479.15	99.90	Least Concern	~ 4.37
1241	10,479.47	10,388.67	99.13	Least Concern	-
Beard vegetation associations - Bioregion					
24	14,280.58	14,280.58	100.00	Least Concern	-
481	809,118.25	809,020.47	99.99	Least Concern	~ 5.21
501	43,938.63	43,805.56	99.70	Least Concern	~ 15.40
505	7,847.48	7,847.44	100.00	Least Concern	~ 7.82
506	98,187	98,050	99.86	Least Concern	~ 12.80
529	40,377.04	40,377.04	100.00	Least Concern	~ 4.23
1241	10,479.47	10,388.67	99.13	Least Concern	-

\* Government of Western Australia (2015)

\*\* 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 (2015)

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 may be at variance to this Principle**

According to available databases, there are no permanent or ephemeral wetlands within the application area (GIS Database). However, there are several non-perennial drainage lines which run through the application area (GIS Database). Potential impacts to riparian vegetation as a result of the proposed clearing may be minimised by the implementation of a riparian vegetation management condition.

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

**Methodology** GIS Database:  
- Hydrography, linear  
- Imagery

**(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 survey area occurs within the Kambalda Zone (265) of the Kalgoorlie Province (Botanica Consulting 2014a; DAFWA, 2006). The Kambalda Zone is characterised by flat to undulating plains (with hills, ranges and some salt lakes and stony plains) on greenstone and granitic rocks of the Yilgarn Craton. Soils are comprised of calcareous loamy earths and red loamy earths with salt lake soils and some redbrown hardpan shallow loams and red sandy duplexes (DAFWA, 2006). There is potential for erosion to occur, particularly within drainage areas. Potential impacts from erosion as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

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

**Methodology** Botanica Consulting (2014a)  
DAFWA (2006)

**(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**

A small portion of the application area is located within the Randalls Timber Reserve (GIS Database). The condition of the vegetation in Randalls Timber Reserve has been previously degraded by stock and feral animals (DPaW, 2014; Outback Ecology Services, 2009), and historical mining activities have occurred within the application area (GIS Database). Given the application area within the Randell Timber Reserve has been previously degraded by mining and grazing, the proposed clearing is not likely to have an impact on the environmental values of Randalls Timber Reserve.

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

**Methodology** Outback Ecology Services (2009)  
  
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**

According to available databases, the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). There are no permanent wetlands within the application area, however, there are several minor non perennial drainage lines (GIS Database).

The annual average rainfall for Coolgardie is 270.7 millimetres and the average annual evaporation rate for the application area is between 2,600 and 2,800 millimetres (BoM, 2016). Based on this, surface water is likely to evaporate quickly with surface sheet flow and higher sediment levels generally occurring during larger rainfall events. Therefore, during normal rainfall events, the proposed clearing would not likely lead to an increase in sedimentation of watercourses within the application area.

The application area lies within the Goldfields Groundwater Area (GIS Database). Groundwater within the application area is saline, between 14,000 – 35,000 milligrams per litre of dissolved salts (GIS Database). Given the groundwater is already saline, the amount of clearing proposed (120 hectares) is unlikely to alter existing groundwater quality.

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

**Methodology** BoM (2016)  
  
GIS Database:  
- Groundwater Salinity, Satewide  
- Hydrography, linear  
- Public Drinking Water Source Areas (PDWSAs)  
- RIWI Act, Groundwater 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 application area is located within the Lake Lefroy catchment area (GIS Database). Given the size of the area to be cleared (120 hectares) in relation to the size of the catchment area (2,488,206 hectares) (GIS Database), the proposed clearing is not likely to increase the potential of flooding on a local or catchment scale.

With an average annual rainfall of 270.7 millimetres and an average evaporation rate of between 2,600 and 2,800 millimetres there is likely to be little surface flow during normal seasonal rains (BoM, 2016). Given the likelihood of little surface flow, the proposed clearing is not likely to cause or increase the incidence or intensity of flooding.

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

**Methodology BoM (2016)**

GIS Database:  
- Hydrographic Catchments – Catchments

**Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.**

**Comments** There are no native title claims over the application area (DAA, 2016). 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 Sites of Aboriginal Significance located in the area applied to clear (DAA, 2016). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Sites of Aboriginal Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation, the Department of Parks and Wildlife and the Department of Water, 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 clearing permit application was advertised on 12 September 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

**Methodology DAA (2016)**

**4. Assessor's recommendations**

**Comment / recommendation**

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*, and the proposed clearing may be at variance to Principles (f) and (g), is not likely to be at variance to Principles (a), (b), (c), (d), (h), (i) and (j), and is not at variance to Principle (e).

## 5. References

- Botanica Consulting (2014a) Level 1 Flora and Vegetation Survey for the Proposed Harrys Hill to Santa Haul Road. Report prepared for Silver Lake Resources (Integra) Pty Ltd, by Botanica Consulting, January 2013.
- Botanica Consulting (2014b) Fauna Assessment (Level 1) Proposed Harry's Hill to Santa Haul Road. Report prepared for Silver Lake Resources (Integra) Pty Ltd, by Botanica Consulting, December 2014.
- BoM (2016) Climate Statistics for Australian Locations, Coolgardie. Bureau of Meteorology. <http://www.bom.gov.au> (Accessed 5 October 2016).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management, Western Australia
- DAA (2016) Aboriginal Heritage Enquiry System. Department of Aboriginal Affairs. <http://maps.dia.wa.gov.au/AHIS2/> (Accessed 5 October 2016).
- 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.
- DAFWA (2006) Resource Management Technical Report 313. Soil-landscapes of Western Australia's Rangelands and Arid Interior. Department of Agriculture and Food WA, Perth.
- DPaW (2014) Advice received in relation to Randell's Timber Reserve. Department of Parks and Wildlife, Environmental Management Branch, December 2014.
- Government of Western Australia (2015) 2015 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2015. WA Department of Parks and Wildlife, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Outback Ecology Services (2009) Salt Creek Level 2 and Maxwells/Cock-Eyed Bob Level 1 Vegetation and Flora Surveys. Prepared for Silver Lake Resources (Integra) Pty Ltd, by Outback Ecology Services, April 2009.
- Outback Ecology Services (2013) Silver Lake Resources Randall's Gold Project. Level 2 Flora and Vegetation Survey. Report prepared for Silver Lake Resources (Integra) Pty Ltd, by Botanica Consulting, January 2013.
- Terrestrial Ecosystems (2012) Fauna Assessment for the Aldiss Area. Report prepared for Silver Lake Resources (Integra) Pty Ltd, by Terrestrial Ecosystems, December 2012.

## 6. Glossary

### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia
<b>DEC</b>	Department of Environment and Conservation, Western Australia (now DPaW and DER)
<b>DER</b>	Department of Environment Regulation, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia
<b>DRF</b>	Declared Rare Flora
<b>DotE</b>	Department of the Environment, Australian Government
<b>DoW</b>	Department of Water, Western Australia
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia
<b>DSEWPaC</b>	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>TEC</b>	Threatened Ecological Community



## **Definitions:**

{DPaW (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

- T**                    **Threatened species:**  
Published as Specially Protected under the *Wildlife Conservation Act 1950*, 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).  
**Threatened fauna** is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act.  
**Threatened flora** 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**                    **Critically endangered species**  
Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
- EN**                    **Endangered species**  
Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
- VU**                    **Vulnerable species**  
Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
- EX**                    **Presumed extinct species**  
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.