



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 6693/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Vimy Resources Limited

### 1.3. Property details

Property: Mining Lease 39/1080  
Local Government Area: Shire of Menzies  
Colloquial name: Mulga Rock Uranium

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of:         |
|--------------------|-----------|--------------------|-----------------------------|
| 20                 |           | Mechanical Removal | Geotechnical Investigations |

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 17 September 2015

## 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. One Beard vegetation association is located within the application area (GIS Database):

**Beard vegetation association 84:** Hummock grasslands, open low tree & mallee steppe; marble gum & mallee (*Eucalyptus youngiana*) over hard spinifex *Triodia basedowii* between sandhills.

A number of flora and vegetation surveys have been conducted over the application area. Mattiske Consulting (2015) combined all survey data and identified the following vegetation communities within the application area:

- Low Open Woodland of *Eucalyptus gongylocarpa* over *Eucalyptus youngiana*, *Eucalyptus ceratocorys*, *Grevillea juncifolia*, *Hakea francisiana* and *Callitris preissii* over *Acacia helmsiana*, *Cryptandra distigma* and mixed low shrubs over *Triodia desertorum*, *Chrysitrix distigmata* and *Lepidobolus deserti*. This community occurs on yellow and yellow-orange sands on flats, slopes and between dunes (Vegetation Community E3);
- Low Open Woodland of *Eucalyptus gongylocarpa* over *Eucalyptus rigidula* and *Eucalyptus* sp. Mulga Rock with *Hakea francisiana* and *Grevillea juncifolia* over *Westringia cephalantha*, *Acacia helmsiana*, *Acacia rigens*, *Eremophila platythamnus* subsp. *platythamnus*, *Cryptandra distigma* and mixed low shrubs over *Triodia desertorum*, *Triodia rigidissima* and *Chrysitrix distigmata*. This community occurs on yellow and orange sands on flats and slopes (Vegetation Community E5);
- Open Scrub Mallee to Very Open Scrub Mallee of *Eucalyptus rigidula* and/or *Eucalyptus* sp. Mulga Rock over *Acacia hemiteles*, *Hakea francisiana*, *Westringia rigida*, *Cryptandra distigma*, *Grevillea acuarina* and mixed low shrubs over *Triodia rigidissima* with *Halgania cyanea*. This community occurs on red-orange sandy loams on flats and low lying swales (Vegetation Community E6);
- Open Scrub Mallee to Very Open Scrub Mallee of *Eucalyptus ceratocorys* and *Eucalyptus mannensis* subsp. *mannensis* with *Eucalyptus youngiana*, *Hakea francisiana* and *Grevillea juncifolia* over *Acacia fragilis*, *Acacia helmsiana* and mixed low shrubs over *Triodia desertorum*, *Chrysitrix distigmata* and *Lepidobolus deserti* with emergent *Eucalyptus gongylocarpa*. This community occurs on yellow sands on flats and slopes (Vegetation Community E8);
- Open Scrub Mallee to Very Open Scrub Mallee of *Eucalyptus trivalva* with *Eucalyptus rigidula* over *Hakea francisiana*, *Bertya dimerostigma*, *Acacia helmsiana*, *Cryptandra distigma* and *Grevillea juncifolia* over *Triodia rigidissima*, *Triodia desertorum*, *Chrysitrix distigmata* and *Halgania cyanea*. This community occurs on orange and red-orange sandy loams on flats and swales (Vegetation Community E12);
- Low Shrubland of *Thryptomene biseriata*, *Allocasuarina spinosissima*, *Allocasuarina acutivalvis* subsp. *acutivalvis*, *Jacksonia arida*, *Calothamnus gilesii*, *Acacia fragilis*, *Conospermum toddii* (DPaW Priority 4), *Pityrodia lepidota*, *Lomandra leucocephala*, *Anthotroche pannosa* and mixed low shrubs over *Triodia desertorum* with *Lepidobolus deserti* with emergent *Eucalyptus gongylocarpa*, *Eucalyptus youngiana*, *Eucalyptus ceratocorys* and *Eucalyptus mannensis* subsp. *mannensis*. This community occurs on yellow sand dunes (Vegetation Community S6);
- Low Shrubland to Low Open Shrubland of *Enekbatus eremaeus*, *Acacia desertorum* var. *desertorum*, *Verticordia*

*helmsii*, *Homalocalyx thryptomenoides*, *Leptospermum fastigiatum*, *Allocasuarina spinosissima*, *Baeckea* sp. Great Victoria Desert (A.S. Weston 14813), *Leptosema chambersii* and mixed low shrubs over *Triodia desertorum* and *Chrysitrix distigmata* with occasional emergent mallee *Eucalyptus* species, *Grevillea juncifolia* and *Hakea francisiana*. This community occurs on yellow and orange sands on lower slopes, undulating plains and swales (Vegetation Community S7); and

Low Open Shrubland of *Calothamnus gilesii*, *Persoonia pertinax*, *Thryptomene biseriata* and *Leptospermum fastigiatum* with *Anthotroche pannosa*, *Acacia helmsiana*, *Microcorys macredieana*, *Micromyrtus stenocalyx* and mixed low shrubs over *Triodia desertorum* with *Lepidobolus deserti*, *Chrysitrix distigmata* and *Caustis dioica* with emergent *Eucalyptus youngiana*, *Eucalyptus gongylocarpa* and *Eucalyptus ceratocorys*. This community occurs on yellow sand flats adjacent to yellow sand dunes and undulating sandplains (Vegetation Community S8).

**Clearing Description** Mulga Rock Uranium  
Vimy Resources Limited proposes to clear up to 20 hectares of native vegetation within a total boundary of approximately 1085 hectares, for the purpose of geotechnical investigations. The project is located approximately 190 kilometres southeast of Laverton in the Shire of Menzies.

**Vegetation Condition** Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).  
To:  
Pristine: No obvious signs of disturbance (Keighery, 1994).

**Comment** The vegetation condition was derived from a flora and vegetation survey review conducted by Mattiske Consulting (2015) and clearing permit supporting information provided by MBS Environmental (2015).

The proposed clearing will allow for development of two geotechnical investigation trenches located about 3.5 km apart within the Ambassador deposit. Existing tracks will be used for access (MBS, 2015).

### 3. Assessment of application against Clearing Principles

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

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

The application area occurs within the Great Victoria Desert Shield subregion of the Great Victoria Desert Interim Biogeographic Regionalisation of Australia bioregion (GIS Database). This subregion consists of salt lakes and major valley floors with lake derived dunes. It is characterised by sand plains with patches of seif dunes running east west and areas of moderate relief with out-cropping and silcrete-capped mesas and plateaus (breakaways) (CALM, 2002). The harsh environment of the region does not support a great diversity of birds or mammals, but does sustain many different species of reptiles (MBS, 2015).

Of the eight vegetation communities mapped within the application area (MBS, 2015; Mattiske, 2015), four occur within the proposed disturbance areas (E3, S8, E5 & E6). All four vegetation communities to be impacted are widespread and common to the local area (MBS, 2015; Mattiske, 2015).

A number of flora surveys have been conducted over the wider project area and a total of eight Priority listed flora species have been recorded within the clearing permit boundary, including two Priority 1 and one Priority 2 listed flora taxa (MBS, 2015). *Hibbertia crispula* (P1) occurs in vast numbers throughout the local area (at least 14,000 plants) and *Dampiera eriantha* (P1) occurs in high numbers on the yellow sand dune slopes and crests, which corresponds to the mapped S6 vegetation community (Mattiske, 2015), where no disturbance is proposed. *Styphelia* sp. Great Victoria Desert (N. Murdoch 44) (P2) is known across 38 sites within the wider project area (Mattiske, 2015). *Conospermum toddii* (P4) and *Olearia arida* (P4) are abundant, with recorded occurrences extending beyond the wider project area and *Grevillea secunda* (P4) and *Dicrastylis cundeeleensis* (P4) are known from numerous records, including records within conservation areas (Mattiske, 2015). Within the areas to be disturbed by the proposed clearing, only two individuals of *Comesperma viscidulum* (P4) were recorded (MBS, 2015). The proposed clearing is highly unlikely to impact this species at a community or population level.

The application area has been subject to past exploration activities and many access tracks and drill lines are present throughout the application area (GIS Database). These tracks will be utilised to reduce potential impacts to Priority flora species present throughout the application area. The proponent will implement ground disturbance procedures, which include avoiding the known locations of Priority flora species (MBS, 2015). Potential impacts to Priority flora species occurring within the clearing permit boundary as a result of the proposed clearing may be minimised by the implementation of a flora management condition.

Fauna habitats within the application area have been significantly degraded by recent bushfires and as a result, fauna densities are anticipated to have decreased in the short to medium term. Although the habitat value has been reduced, there are still some food resources and faunal habitats available. The fauna habitats found within the application area are common and widespread throughout the region (MBS, 2015).

No Threatened Ecological Communities are known within the application area; however the application area is located within the boundary of the Priority Ecological Community (PEC) "Yellow Sandplain Communities of the Great Victoria Desert" (GIS Database). Given that this PEC has a known extent of 624,303 hectares (GIS Database), the proposed clearing of up to 20 hectares of native vegetation represents less than 0.005% of the PECs extent. This being considered, significant impacts to the PEC are unlikely to result from the proposed clearing.

No weeds species have been identified within the application area (MBS, 2015) and only one weed species *Schinus molle* var. *areira* has been recorded from the wider area (Mattiske, 2015). Clearing activities have the potential to result in the introduction or spread of weed species, which may negatively impact on the biodiversity of the local area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The proposed clearing of 20 hectares of native vegetation within a clearing permit boundary of approximately 1085 hectares, is unlikely to result in significant impacts to the local area or region.

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

**Methodology** CALM (2002)  
Mattiske (2015)  
MBS (2015)  
GIS Database:  
- IBRA WA (Regions - Sub Regions)  
- 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 is not likely to be at variance to this Principle**

A number of fauna surveys have been undertaken over the wider project area, which also include the application area. The fauna habitats found within the application area are considered to be common and widespread throughout the local area and region (MBS, 2015).

A fauna survey was conducted over the application in 2010 by Ninnox Wildlife Consulting. During this survey, several species of conservation significance that were considered likely to occur were targeted. Of the species identified as potentially occurring within the application area, the Southern Marsupial Mole (*Notoryctes typhlops* – *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* and *Wildlife Conservation (WC) Act 1950* Endangered) and the Woma Python (*Aspidites ramsayi* – WC Act Schedule 4) were recorded or evidence of their presence was observed (Ninnox, 2010; MBS, 2015). There have been historic records of the Sandhill Dunnart (*Sminthopsis psammophila*), but this species has not been recorded within the area since 1985 (Ninnox, 2010; MBS, 2015).

Evidence of burrows within trenches excavated into sand dunes was observed, which is thought to be the preferred habitat for the Southern Marsupial Mole (Department of the Environment, Australian Government (DotE), 2015). It is possible that the Southern Marsupial Mole may frequent or traverse the application area on occasion, although there is little data on the habitat preferences of the Southern Marsupial Mole (DotE, 2015). It is most often recorded in the crest and slope of sandy dunes which are vegetated with *Acacia* spp. and other shrubs. Such habitat is widespread and typical of the sandy deserts (DotE, 2015).

The sand dune habitat present within the application area corresponds to the mapped vegetation communities S6 and S8. Minor disturbance (<1% of total clearing) is proposed within vegetation community S8 and no disturbance is proposed within vegetation community S6 (MBS, 2015). Given that extensive amounts of similar habitat has been mapped in areas outside the proposed clearing permit boundary and that very little preferred habitat for the Southern Marsupial Mole is proposed to be disturbed, impacts as a result of the proposed clearing are not likely to be significant.

Given the extent of remaining vegetation and habitat in the local area, the Woma Python is unlikely to experience significant adverse impacts from the proposed clearing; however vehicles pose a risk and the proponent will implement mitigation and management measures to reduce the likelihood of vehicle strikes (MBS, 2015).

A reconnaissance Short Range Endemic (SRE) survey was conducted over the wider project area in 2015 (MBS, 2015). Twelve species were identified as having a moderate risk of being SRE species, however the application area has limited potential habitat for SRE's and preferred SRE habitats are common outside the application area (MBS, 2015). A pilot subterranean fauna survey was also conducted over the wider project area and 13 troglodfauna species were recorded (MBS, 2015). Given that these species were captured 5 to 10 metres below the surface, and the majority of the proposed clearing is for tracks, stockpiles, safety bunds and laydown areas, the proposed clearing is unlikely to have significant impacts on subterranean fauna species.

While investigative trenches comprise only 2.9 hectares of the 20 hectares proposed to be cleared, trenches have the potential to act as pitfall traps to local fauna species. To reduce potential impacts to local fauna species, the proponent will implement management and mitigation measures, which includes ramps within trenches and daily inspections (MBS, 2015).

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

**Methodology** DotE (2015)  
MBS (2015)

**(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**  
 According to available databases, there are no species of Threatened flora known to occur within the application area (GIS Database; DPaW, 2015). A number of flora and vegetation surveys have been conducted over the wider project area (including the application area) and no Threatened flora have been recorded (Mattiske, 2015; MBS, 2015).

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

**Methodology** DPaW (2015)  
 Mattiske (2015)  
 MBS (2015)  
 GIS Database  
 - Threatened and Priority Flora List

**(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 at variance to this Principle**  
 According to available datasets, there are no known Threatened Ecological Communities within the application area (GIS Database).

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

**Methodology** GIS Database:  
 - Threatened Ecological Sites Buffered  
 - Threatened and Priority Ecological Communities Buffers  
 - Threatened and Priority Ecological Communities 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 area occurs within the Great Victoria Desert Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, in which approximately 99.9% of the pre-European vegetation remains (see table below) (GIS Database; Government of Western Australia, 2013).

The vegetation within the application area has been mapped as Beard vegetation association 84 (GIS Database). As the below table illustrates, Beard vegetation association 84 is well represented, retaining over 99% of pre-European vegetation within the State and bioregion (Government of Western Australia, 2013). 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 – Great Victoria Desert | 21,794,222              | 21,784,887           | ~ 99.9       | Least Concern         | ~ 8.5                                |
| Beard veg assoc. - State               |                         |                      |              |                       |                                      |
| 84                                     | 1,799,366               | 1,799,366            | ~ 100        | Least Concern         | ~ 9                                  |
| Beard veg assoc. - Bioregion           |                         |                      |              |                       |                                      |
| 84                                     | 1,781,533               | 1,781,533            | ~ 100        | Least Concern         | ~ 9                                  |

\* Government of Western Australia (2014)

\*\* 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 (2014)  
 GIS Database:  
 - IBRA WA (regions - subregions)  
 - 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 not at variance to this Principle**

There are no mapped wetlands or watercourses within the application area (GIS Database). The application area occurs within an arid environment with no permanent or ephemeral watercourses or wetlands (MBS, 2015).

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

**Methodology** MBS (2015)  
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**

Three soil types have been mapped within the application area; deep dunal sand, sandy duplex soil and calcareous loamy soils (MBS, 2015). Sandy soils are known to be susceptible to wind erosion, therefore it is important to minimise the length of time the land is left open following clearing. Given that the proposed activities are to be completed by December, land degradation issues are unlikely to arise.

The proponent will implement ground disturbance procedures, which includes the avoidance of clearing after excessive rainfall and during windy conditions.

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

**Methodology** MBS (2015)

**(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**

The application area is not located within or adjacent to any conservation areas (GIS Database). The closest conservation area is situated approximately 30 kilometres south of the application area (MBS, 2015; GIS Database).

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

**Methodology** MBS (2015)  
GIS Database:  
- DEC 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 application area is located within an arid environment (CALM, 2002), with an average annual rainfall of 280 millimetres (BoM, 2015). The water table within the application area is approximately 40 metres below ground level (MBS, 2015). The proposed clearing of up to 20 hectares within a clearing permit boundary of 1,085 hectares, in an area where extensive amounts of vegetation remains, is unlikely to result in deterioration of the groundwater quality.

Given the relatively small size of the proposed clearing within an arid climate where watercourses are absent, surface water quality is unlikely to be impacted.

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

**Methodology** BoM (2015)  
CALM (2002)  
MBS (2015)  
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**

Given the sandy nature of the soils (GIS Database; MBS, 2015) and high evaporation rate (BoM, 2015), the proposed clearing is unlikely to result an increased incidence or intensity of flooding.

There are some areas where water may pond in local depressions following heavy rainfall events which then either evaporates or infiltrates over time (MBS, 2015).

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

**Methodology** BoM (2015)  
MBS (2015)  
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 (GIS Database; DAA, 2015). 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 Sites of Aboriginal Significance located in the area applied to clear (GIS Database; DAA, 2015). 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 24 August 2015 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

**Methodology** DAA (2015)  
GIS Database:  
- Aboriginal Sites of Significance

**4. References**

- BoM (2015) Climate Statistics for Australian Locations. A Search for Climate Statistics, Australian Government Bureau of Meteorology. <<http://www.bom.gov.au>>.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management.
- DAA (2015) Aboriginal Heritage Inquiry System, Department of Aboriginal Affairs, Perth, Western Australia <<http://maps.dia.wa.gov.au>>.
- DotE (2015) *Notoryctes typhlops* in Species Profile and Threats Database, Department of the Environment, Canberra <<http://www.environment.gov.au>>.
- 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.
- DPaW (2015a) NatureMap, Department of Parks and Wildlife <<http://naturemap.dec.wa.gov.au>>.
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Environment and Conservation, 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.
- Mattiske (2015) Assessment of Flora and Vegetation Surveys Conducted for the Mulga Rock Uranium Project, Great Victoria Desert, WA. Mattiske Consulting Pty Ltd, Kalamunda, Western Australia.
- MBS (2015) Purpose Permit Application (Supporting Information) Mulga Rock Uranium Project Geotechnical Investigation Trenches Assessment of Clearing Principles. MBS Environmental, West Perth, Western Australia.
- Ninox (2010) A Fauna Survey of the Proposed Mulga Rock Project Area, Great Victoria Desert, Western Australia. *Unpublished report*. Ninox Wildlife Consulting, Albany, Western Australia.

**5. Glossary**

**Acronyms:**

**BoM** Bureau of Meteorology, Australian Government

|          |   |
|----------|---|
| DAA      | Department of Aboriginal Affairs, Western Australia   |
| DAFWA    | Department of Agriculture and Food, Western Australia   |
| DEC      | Department of Environment and Conservation, Western Australia (now DPaW and DER)  |
| DER      | Department of Environment Regulation, Western Australia   |
| DMP      | Department of Mines and Petroleum, Western Australia  |
| DRF      | Declared Rare Flora   |
| DotE     | Department of the Environment, Australian Government  |
| DoW      | Department of Water, Western Australia  |
| DPaW     | Department of Parks and Wildlife, Western Australia   |
| DSEWPaC  | Department of Sustainability, Environment, Water, Population and Communities (now DotE)                                   |
| EPA      | Environmental Protection Authority, Western Australia   |
| EP Act   | <i>Environmental Protection Act 1986</i> , Western Australia  |
| EPBC Act | <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)  |
| GIS      | Geographical Information System   |
| ha       | Hectare (10,000 square metres)  |
| IBRA     | Interim Biogeographic Regionalisation for Australia   |
| IUCN     | International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union |
| PEC      | Priority Ecological Community, Western Australia  |
| RIWI Act | <i>Rights in Water and Irrigation Act 1914</i> , Western Australia  |
| s.17     | Section 17 of the <i>Environment Protection Act 1986</i> , Western Australia  |
| TEC      | Threatened Ecological Community   |

### **Definitions:**

{DPaW (2013) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

- T**      **Threatened species:**  
 Specially protected under the *Wildlife Conservation Act 1950*, listed under Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna or the Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).  
 Threatened Fauna and Flora are further recognised by the Department according to their level of threat using IUCN Red List criteria. For example Carnaby's Cockatoo *Calyptorhynchus latirostris* is specially protected under the *Wildlife Conservation Act 1950* as a threatened species with a ranking of Endangered.  
Rankings:  
 CR: Critically Endangered - considered to be facing an extremely high risk of extinction in the wild.  
 EN: Endangered - considered to be facing a very high risk of extinction in the wild.  
 VU: Vulnerable - considered to be facing a high risk of extinction in the wild.
- X**      **Presumed Extinct species:**  
 Specially protected under the Wildlife Conservation Act 1950, listed under Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora (which may also be referred to as Declared Rare Flora).
- IA**     **Migratory birds protected under an international agreement:**  
 Specially protected under the Wildlife Conservation Act 1950, listed under Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice.  
 Birds that are subject to an agreement between governments of Australia and Japan, China and The Republic of Korea relating to the protection of migratory birds and birds in danger of extinction.
- S**      **Other specially protected fauna:**  
 Specially protected under the Wildlife Conservation Act 1950, listed under Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice.
- P1**     **Priority One - Poorly-known species:**  
 Species that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, rail reserves and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.
- P2**     **Priority Two - Poorly-known species:**  
 Species that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, unallocated Crown land, water reserves, etc. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.
- P3**     **Priority Three - Poorly-known species:**  
 Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities 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 localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.

**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 do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.
- (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

**P5**

**Priority Five - Conservation Dependent species:**

Species that are not threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.