

Clearing Permit Decision Report

1. Application details

| 1.1 Permit application details | | | | | | |
|---------------------------------------|--|------------------------------------|--|--|--|--|
| Permit application No.: | 5127/1 | | | | | |
| Permit type: | Purpo | ² urpose Permit | | | | |
| 1.2. Proponent detail | s | | | | | |
| Proponent's name: | Regi | Regis Resources Limited | | | | |
| 1.3 Property details | | | | | | |
| Property: | Minin | g Lease 38/237 | | | | |
| | Minin | g Lease 38/250 | | | | |
| | Minin | Mining Lease 38/343 | | | | |
| | Misce | Miscellaneous Licence 38/212 | | | | |
| Local Government Area: | Shire | Shire of Laverton | | | | |
| Colloquial name: | Roemont Gold Project | | | | | |
| 1.4. Application | | | | | | |
| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: | | | |
| 460 | | Mechanical Removal | Mineral Production | | | |
| 1.5. Decision on app | lication | | | | | |
| Decision on Permit Applicat | ion: Gran | Grant | | | | |
| Decision Date: | 16 Au | 16 August 2012 | | | | |
| 2 Site Information | | | | | | |
| 2. One mormation | | | | | | |
| 2.1. Existing environ | ment and | information | | | | |
| 2.1.1. Description of the | native veg | etation under application | | | | |
| Vegetation Description | Beard vegetat | ion associations have been mappe | d for the whole of Western Australia. One Beard vegetation | | | |
| · · · · · · · · · · · · · · · · · · · | 455001411011116 | is been mapped within the applicat | ion alea (GIS Dalabase). | | | |
| | 18: Low woodland; mulga (<i>Acacia aneura</i>). | | | | | |
| | A flora and vegetation survey of the application area was conducted by Mattiske Consulting (2012) in March 2012. This survey identified the following 12 vegetation communities as occurring within the application area (Mattiske Consulting, 2012): | | | | | |
| | A1: Open to semi-closed shrubland of <i>Acacia incurvaneura</i> over <i>Eremophila pungens</i> (P4) and <i>Hibiscus burtonii</i> over <i>Ptilotus drummondii</i> and mixed grasses on flats with red clay soil; | | | | | |
| | A2: Open shrubland of Acacia incurvaneura and Acacia mulganeura over Acacia tetragonophylla and Eremophila oldfieldii over Ptilotus obovatus, Hibiscus burtonii and Solanum lasiophyllum over mixed grasses on flats to lower slopes with red gravely clay soil and quarts pebbles. | | | | | |
| | A3: Semi-closed to open shrubland of Acacia mulganeura, Acacia incurvaneura, Acacia tetragonophylla and Acacia craspedocarpa over Ptilotus obovatus, Hibiscus burtonii and Solanum lasiophyllum on flats with red clay soil and quartz pebbles. | | | | | |
| | A4: Open to semi-closed shrubland of Acacia incurvaneura and occasional Acacia mulganeura, Acacia quadrimarginea, Acacia pteraneura and Acacia tetragonophylla over Hibiscus burtonii and Ptilotus obovatus over Solanum lasiophyllum, Ptilotus drummondii, Enchylaena tomentosa and mixed grasses on flats with clay soil. | | | | | |
| 1 | A5: Open to semi-closed shrubland of Acacia incurvaneura, Acacia mulganeura and Acacia tetragonophylla over Eremophila oldfieldii over Ptilotus obovatus, Hibiscus burtonii and Solanum lasiophyllum over mixed grasses on flats with red clay soils and occasional quartz pebbles. | | | | | |
| | A6: Closed to open shrubland of Acacia incurvaneura, Acacia burkittii, Acacia tetragonophylla and Acacia craspedocarpa over Senna artemisioides subsp. x artemisioides over Ptilotus obovatus and Hibiscus burtonii over Cheilanthes sieberi subsp. sieberi and mixed grasses on minor creek lines with red clay soils. | | | | | |
| | A7: Closed to semi-open shrubland of Acacia incurvaneura, Acacia pteraneura, Acacia craspedocarpa and Acacia tetragonophylla over Hibiscus burtonii over Sida sp. dark green fruits (S. Van Leeuwen 2260), Solanum lasiophyllum and Abutilon cryptopetalum over Cheilanthes sieberi subsp. sieberi and mixed grasses on minor creek lines with red clay soil. | | | | | |

| | A8: Closed shrubland of Acacia incurvaneura, Acacia mulganeura, Acacia craspedocarpa and Acacia tetragonophylla over Eremophila latrobei subsp. latrobei and Psydrax suaveolens over Grevillea deflexa and Hibiscus burtonii over Sida fibulifera and mixed grasses on minor creek lines with red clay soil. |
|----------------------|---|
| | A9: Open shrubland of <i>Acacia burkittii</i> over <i>Eremophila oldfieldii</i> and <i>Senna artemisioides</i> subsp. <i>filifolia</i> over <i>Ptilotus obovatus</i> over mixed grasses on flats with red clay soil and quartz pebbles. |
| | C1: Open Chenopod shrubland of <i>Tecticornia pergranulata, Maireana triptera, Maireana pyramidata, Mirbelia rhagodioides, Sclerolaena eriacantha</i> and mixed grasses with occasional thickets of <i>Acacia incurvaneura, Acacia burkittii, Acacia tetragonophylla, Exocarpos aphyllus</i> and/or <i>Senna artemisioides</i> subsp. <i>filifolia</i> on lower slopes to flats dissected by minor creek lines with red clay soil and quartz pebbles. |
| | C2: Very open Chenopod shrubland of <i>Maireana pyramidata</i> over <i>Maireana triptera</i> , <i>Sclerolaena eriacantha</i> , <i>Solanum lasiophyllum</i> , <i>Frankenia georgei</i> and mixed grasses with occasional emergent <i>Acacia ?cuthbertsonii</i> , <i>Hakea preissii</i> and <i>Eremophila oldfieldii</i> on flats with red clay soil and quartz pebbles. |
| | C3: Open Chenopod shrubland of <i>Tecticornia pergranulata, Maireana pyramidata, Frankenia georgei</i> and Sclerolaena fusiformis on flats with red clay soil and quartz pebbles. |
| Clearing Description | Regis Resources Limited has applied to clear up to 460 hectares of native vegetation within a boundary of 792 hectares for the purpose of Mineral Production. The proposed activities include construction of the Rosemount open pit, waste rock dumps, ROM pad, processing plant, safety bunding, access roads and other associated mining activities. |
| Vegetation Condition | Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994); |
| | То |
| | Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994). |
| Comment | The application area is located in the Murchison region of Western Australia and is situated approximately 86 kilometres north of Laverton (GIS Database). |
| | |

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 is located within the East Murchison subregion of the Murchison Interim Biogeographic Regionalisation for Australia (IBRA) bioregion which encompasses an area of 28,120,558 hectares (GIS Database). The East Murchison subregion is characterised by internal drainage, extensive areas of elevated red desert sandplains with minimal dune development, salt lake systems associated with the occluded paleodrainage system, broad plains of red-brown soils and breakaway complexes, as well as red sandplains (CALM, 2002). Vegetation is dominated by Mulga woodlands which are often rich in ephemerals; hummock grasslands, saltbush shrublands and *Halosarcia* shrublands (CALM, 2002).

A flora and vegetation survey of the application area was conducted by Mattiske Consulting (2012) in March 2012. A total of 92 plant taxa from 27 families and 52 genera were recorded during this survey (Mattiske Consulting, 2012).

No Threatened Flora species and one Priority 4 flora species, *Eremophila pungens*, was identified within the application area during a flora survey conducted by Mattiske Consulting (2012). One location of *Eremophila pungens* was recorded within the application area with up to approximately 5 individuals being recorded (Mattiske Consulting, 2012). The number of individual plants for this species, in the area surrounding the application area, is estimated to be in the thousands (Regis Resources, 2012). Given the large number of populations and individuals outside of the application area, as well as the variety of vegetation associations it occurs in, it is considered unlikely that the proposed clearing will impact upon the conservation status of this species (Regis Resources, 2012).

According to available databases there are no Threatened or Priority Ecological Communities within the application area (GIS Database).

Two introduced flora species, *Portulaca oleracea* and *Sagina apetala*, were recorded within the application area during the flora survey conducted by Mattiske Consulting (2012). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. This can in turn lead to greater rates of infestation and further loss of biodiversity if the area is subject to repeated fires. None of these species are listed as 'Declared Plant' species under the *Agriculture and Related Resources Protection Act 1976* by the Department of Agriculture and Food. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

A fauna risk assessment survey of the application area was conducted by Terrestrial Ecosystems (2012). This survey included a desktop assessment of relevant databases, a review of fauna reports from the local area and a site visit to identify potential habitat for conservation significant fauna species. The survey identified three

fauna habitats within the application area:

- highly degraded mine pits and associated earthworks;
- poorly rehabilitated waste dump; and
- sparse open mulga woodland over mixed scattered shrubs.

Terrestrial Ecosystems (2012) identified the potential for six conservation significant fauna species to occur within the application area, however the conservation of these species is considered unlikely to be impacted by the proposed clearing.

A subterranean vertebrate survey of the application area was conducted by Bennelongia (2012). This survey identified that the saprolite-dominated regolith layer within the application area is unlikely to contain significant pore spaces due to the large amount of clay present (Bennelongia, 2012). Therefore the area is considered unlikely to support a significant troglofauna or stygofauna community.

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

Methodology Bennelongia (2012) CALM (2002) Mattiske Consulting (2012) Regis Resources (2012) Terrestrial Ecosystems (2012) GIS Database: - IBRA WA (regions –subregions)

- 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 fauna risk assessment survey of the application area was conducted by Terrestrial Ecosystems (2012) which included a desktop survey of relevant databases, a review of fauna reports from the local area and a site visit to identify potential habitat for conservation significant fauna species. The survey identified three fauna habitats within the application area:

- highly degraded mine pits and associated earthworks;

- poorly rehabilitated waste dump; and
- sparse open mulga woodland over mixed scattered shrubs.

Terrestrial Ecosystems (2012) identified the potential for the following six conservation significant fauna species to occur within the application area:

- Peregrine Falcon (*Falco peregrinus*) – Schedule 4 – preferred habitat is areas near cliffs along coastlines, rivers and ranges and within woodlands along watercourses and around lakes. This species has been recorded at Wanjarri Nature Reserve, approximately 145 kilometres north east of the application area. This species may infrequently occur within the general area, however the proposed clearing is considered unlikely to impact on the conservation of this species;

- Australian Bustard (*Ardeotis australis*) – Priority 4 – this species has been recorded in numerous surveys within the Murchison bioregion. This species is highly mobile and the habitat within the application area is abundant in adjacent areas. Given this species is not dependent on the habitat within the application area it is considered unlikely that the proposed clearing will impact on the conservation of this species;

- Slender-billed Thornbill (*Acanthiza iredalei iredalei*) Vulnerable – this species occupies treeless chenopod shurblands and favours saline flats associated with salt lakes. This species has not been recorded during other surveys within the region. Given the lack of suitable habitat within the application area, the conservation of species is considered unlikely to be impacted by the proposed clearing;

- Princess Parrot (*Polytelis alexandrea*) – Vulnerable – little is known about this species, however it is thought to be nomadic within the central desert regions of Australia. The preferred habitat for this species is believed to be arid shrublands, particularly those dominated by Mulga, Desert Oak and Spinifex. This species has been recorded near Wanjarri Nature Reserve, approximately 145 kilometres north east of the application area and therefore may occasionally occur within the application area. This species is highly mobile and likely to move away from areas being disturbed. It is therefore considered unlikely that the proposed clearing will impact on the conservation of this species;

- Rainbow Bee-eater (*Merops ornatus*) – Migratory – prefers lightly wooded habitats, on sandy soils near water. This species has been observed on multiple occasions during other fauna surveys within the Murchison bioregion. The habitat within the application area is abundant in adjacent areas and this species is highly mobile. It is therefore considered unlikely that the proposed clearing will impact on the conservation of this species; and

- Fork-tailed Swift (Apus pacificus) - Migratory - this species is almost exclusively an aerial species. It is therefore considered unlikely that the proposed clearing will impact on the conservation of this species. There is the potential for six conservation significant fauna species to occur within the application area, however all species are highly mobile bird species and all have the capacity to egress away from any disturbance. Additionally, the habitat within the application area is abundant in the areas adjacent to the application area. It is therefore considered unlikely that the proposed clearing will impact on the conservation of any fauna species. A subterranean vertebrate survey of the application area was conducted by Bennelongia (2012). This survey identified that the saprolite-dominated regolith layer within the application area is unlikely to contain significant pore spaces for subterranean vertebrates due to the large amount of clay present (Bennelongia, 2012). Therefore the area is considered unlikely to support a significant troglofauna or stygofauna community. Based on the above, the proposed clearing is not likely to be at variance to this Principle. Methodology Bennelongia (2012) Terrestrial Ecosystems (2012) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, (c) rare flora. Comments Proposal is not likely to be at variance to this Principle According to available GIS Databases there are no known records of Threatened Flora within the application area (GIS Database). A flora and vegetation survey of the application area conducted by Mattiske Consulting (2012) in March 2012 did not identify any Threatened Flora species within the application area. Based on the above, the proposed clearing is not likely to be at variance to this Principle. Methodology Mattiske Consulting (2012) GIS Database: - Threatened and Priority Flora Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the (d) maintenance of a threatened ecological community. Proposal is not likely to be at variance to this Principle Comments There are no known records of Threatened Ecological Communities (TEC's) within the application area (GIS Database). The nearest known TEC is located approximately 205 kilometres west of the application area (GIS Database). At this distance there is little likelihood of any impact to the TEC as a result of the proposed clearing. Based on the above, the proposed clearing is not likely to be at variance to this Principle. Methodology GIS Database: - Threatened Ecological Sites Buffered Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area (e) that has been extensively cleared. Proposal is not at variance to this Principle Comments The application area is located within the Murchison Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (GIS Database). The Government of Western Australia (2011) reports that approximately 99.73% of the pre-European vegetation remains in the Murchison bioregion. The vegetation in the application area has been broadly mapped as Beard vegetation association: 18: Low woodland; mulga (Acacia aneura). According to the Government of Western Australia (2011) approximately 99.68% of this Beard vegetation association remains within the Murchison bioregion (see table on next page).

| | Pre-European area (ha)* | Current extent (ha)* | Remaining %* | Conservation Status** | Pre-European % in IUCN Class I-IV Reserves |
|--|----------------------------|-------------------------|-----------------|--------------------------|---|
| IBRA Bioregion - Murchison | 28,120,587 | 28,044,823 | ~99.73 | Least Concern | ~1.05 |
| Beard vegetation associations - State | | | | | |
| 18 | 19,892,305 | 19,843,823 | ~99.76 | Least Concern | ~2.13 |
| Beard vegetation associations - Bioregion | | | | | |
| 18 12,403,172 | | 12,363,252 | ~99.68 | Least Concern | ~0.37 |

* Government of Western Australia (2011)

** Department of Natural Resources and Environment (2002)

The vegetation within the application area is not considered to be a remnant of vegetation in an area that has been extensively cleared.

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 (2011) 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 at variance to this Principle

According to available databases there are no permanent wetlands or watercourses within the application area, however two minor, non-perennial watercourses are present (GIS Database).

A flora and vegetation survey of the application area conducted by Mattiske Consulting (2012) identified the three vegetation communities growing in association with minor creek lines. According to available databases, minor non-perennial watercourses are common throughout the Murchison bioregion. It is therefore considered unlikely that the proposed clearing will impact on the conservation of the vegetation growing in association with the minor non-perennial watercourses within the application area.

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

Methodology Matiske Consulting (2012) 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 may be at variance to this Principle

According to available databases, the application area intersects the following four land systems (GIS Database):

- The Hootanui Land System is characterised by breakaways, hills and ridges with extensive saline gravelly and stony lower plains, supporting scattered halophytic low shrublands (Pringle et al., 1994). Narrow drainage tracts and breakaway footslopes are susceptible to water erosion in areas where perennial shrub cover is substantially reduced or if the soil surface is disturbed (Pringle et al., 1994). These areas are generally very gently inclined to level plains which are subject to sheet flow (Pringle et al., 1994). It is considered that there is a moderate risk of water erosion in areas where native vegetation is cleared and where surface mantles are disturbed.

- The Jundee Land System is characterised by hardpan plains with ironstone gravel mantles, supporting mulga shrublands (Pringle et al., 1994). The gravel mantles provide effective protection against soil erosion (Pringle et al., 1994). The disturbance of this mantle, however, may increase the potential for soil erosion.

- The Nuveb Land System is characterised by gently undulating stony plains, minor limonitic low rises and drainage floors, supporting mulga and halophytic shrublands (Pringle et al., 1994). This land system is moderately susceptible to erosion in drainage zones and where there is disturbance to the surface mantle on

saline stony plains (Pringle et al., 1994).

- The Teutonic Land System is characterised by hills and stony plains on acid volcanic rocks, supporting acacia shrublands (Pringle et al., 1994). According to Pringle et al. (1994) this land system is generally not susceptible to erosion.

Three of the land systems within the application area have the potential for soil erosion should the surface mantles be disturbed. Potential soil 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 Pringle et al. (1994)

GIS Database:

- Rangeland Land System Mapping

(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 is not located within a conservation reserve (GIS Database). The nearest conservation reserve is the De La Poer Range Nature Reserve located approximately 44 kilometres east north-east of the application area. At this distance it is considered unlikely that the proposed clearing will impact on the environmental values of any conservation areas.

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

Methodology 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 experiences an arid climate with an average annual rainfall of approximately 232 millimetres and experiences mean annual evaporation of approximately 3,400 millimetres (CALM, 2002; BoM, 2012; GIS Database). While there are two minor ephemeral watercourses within the application area (GIS Database), the sporadic nature of the rainfall within the local area means that the water only holds for a short period of time. It is therefore considered unlikely that the proposed clearing activities will cause deterioration in the quality of any surface water.

Groundwater within the application area has moderate salinity levels of between 1,000 to 3,000 milligrams per litre Total Dissolved Solids (TDS) (GIS Database). Groundwater quality within this range is classed as Brackish and considered acceptable for most stock and some irrigation.

According to available GIS Databases, the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). The nearest PDWSA is the Laverton Water Reserve which is located approximately 61 kilometres south of the application area at its closest point (GIS Database). Given the distance separating the application area and the nearest water supply, the proposed clearing is not likely to impact on the water quality of the Laverton Water Reserve.

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

Methodology BoM (2012)

CALM (2002)

GIS Database:

- Evaporation Isopleths

- Groundwater Salinity, Statewide
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSAs)

(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 experiences an arid climate with an average annual rainfall of approximately 232 millimetres recorded at Laverton weather station, approximately 75 kilometres south of the application area (CALM, 2002; BoM, 2012). Mean annual evaporation rates in the application area are approximately 3,400 millimetres (GIS Database). Given these climate conditions, surface water is unlikely to persist in the proposed clearing area for extended periods of time.

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

Methodology BoM (2012) CALM (2002) GIS Database: - Evaporation Isopleths

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

Comments

There are no Native Title Claims over the area under application (GIS Database). 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 (GIS Database). 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 Environment and Conservation 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 2 July 2012 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

Methodology GIS Database:

- Aboriginal Sites of Significance

4. References

Bennelongia (2012) Duketon Gold Project: Subterranean Fauna Desktop Assessment for Rosemont Deposit. Unpublished report dated April 2012.

BoM (2012) BoM Website - Climate Averages by Number, Averages for LAVERTON.

www.bom.gov.au/climate/averages/tables/cw_002038.shtml (Accessed 6 August 2012).

- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- Government of Western Australia (2011) 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). 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 Consulting (2012) Flora and Vegetation Survey of the Rosemont Mine and Infrastructure Survey Area. Unpublished report dated April 2012.

Pringle, H. J. R., Van Vreeswyk, A. M.E. and Gilligan, S.A. (1994). An inventory and condition survey of the north-eastern Goldfields, Western Australia, Technical Bulletin No. 87, Department of Agriculture, Western Australia, Perth.

Regis Resources (2012) Vegetation Clearing Permit Application - Rosemont Gold Project (M38/343, M38/237, M38/250, L38/212). Unpublished report dated June 2012.

Terrestrial Ecosystems (2012) Level 1 Fauna Risk Assessment for the Rosemont Project Area. Unpublished Report dated February 2012.

5. Glossary

Acronyms:

| BoM | Bureau of Meteorology, Australian Government |
|-------|---|
| CALM | Department of Conservation and Land Management (now DEC). Western Australia |
| DAFWA | Department of Agriculture and Food. Western Australia |
| DEC | Department of Environment and Conservation. Western Australia |
| DEH | Department of Environment and Heritage (federal based in Canberra) previously Environment Australia |
| DEP | Department of Environment Protection (now DEC), Western Australia |
| DIA | Department of Indigenous Affairs |
| DLI | Department of Land Information, Western Australia |
| DMP | Department of Mines and Petroleum, Western Australia |
| DoE | Department of Environment (now DEC), Western Australia |
| DolR | Department of Industry and Resources (now DMP), Western Australia |
| DOLA | Department of Land Administration, Western Australia |

DoW Department of Water EP Act Environmental Protection Act 1986, Western Australia **EPBC Act** Environment Protection and Biodiversity Conservation Act 1999 (Federal Act) GIS Geographical Information System Hectare (10,000 square metres) ha IBRA Interim Biogeographic Regionalisation for Australia IUCN International Union for the Conservation of Nature and Natural Resources - commonly known as the World Conservation Union **RIWI Act** Rights in Water and Irrigation Act 1914, Western Australia s.17 Section 17 of the Environment Protection Act 1986, Western Australia TEC Threatened Ecological Community

Definitions:

{Atkins, K (2005). Declared rare and priority flora list for Western Australia, 22 February 2005. Department of Conservation and Land Management, Como, Western Australia} :-

- P1 Priority One Poorly Known taxa: taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P2 Priority Two Poorly Known taxa: taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- **P3 Priority Three Poorly Known taxa**: taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4 Priority Four Rare taxa: taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- **R Declared Rare Flora Extant taxa** (*= Threatened Flora = Endangered + Vulnerable*): taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X Declared Rare Flora Presumed Extinct taxa: taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1 Fauna that is rare or likely to become extinct: being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2 Fauna that is presumed to be extinct: being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3 Birds protected under an international agreement: being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4 Other specially protected fauna: being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.
- {CALM (2005). Priority Codes for Fauna. Department of Conservation and Land Management, Como, Western Australia} :-
- P1 Priority One: Taxa with few, poorly known populations on threatened lands: Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2 Priority Two: Taxa with few, poorly known populations on conservation lands: Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3 Priority Three: Taxa with several, poorly known populations, some on conservation lands: Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4 Priority Four: Taxa in need of monitoring: Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need

of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.

P5 Priority Five: Taxa in need of monitoring: Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of threatened species (Environment Protection and Biodiversity Conservation Act 1999)

| EX | Extinct: A native species for which there is no reasonable doubt that the last member of the species has died. | | | |
|-------|--|--|--|--|
| EX(W) | Extinct in the wild: A native species which: (a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or (b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form. | | | |
| CR | Critically Endangered: A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria. | | | |
| EN | idangered: A native species which: is not critically endangered; and is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria. | | | |
| VU | Vulnerable: A native species which: (a) is not critically endangered or endangered; and (b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria. | | | |
| CD | Conservation Dependent: A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years. | | | |