

Clearing Permit Decision Report

1. Application details

1.1. Permit application details
Permit application No.: 7329/

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Aragon Resources Pty Ltd

1.3. Property details

Property: Mining Lease 52/338
Local Government Area: Shire of Meekatharra

1.4. Application

Clearing Area (ha) No. Trees Method of Clearing For the purpose of:

Mechanical Removal Mineral production

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 1 December 2016

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. Two Beard vegetation association are located within the application area (GIS Database):

cription located within the application area (GIS Database):

Beard vegetation association 18: Low woodland; mulga (Acacia aneura)

Beard vegetation association 39: Shrublands; mulga scrub

Umwelt (2013) conducted a Level 1 flora and vegetation survey over the application area and described 9 vegetation communities:

Acacia Woodlands

- **M1** Low open woodland of *Acacia aptaneura* and *Acacia cuthbertsonii* with *Acacia pruinocarpa*, *Acacia tetragonophylla and Psydrax latifolia* over low sparse shrubland of *Maireana aphylla* with *Senna artemisioides* subsp. x sturtii, *Senna artemisioides* subsp. helmsii and *Atriplex vesicaria* over low forbland and grassland of *Sclerolaena cuneata* and *Eriachne pulchella* with *Ptilotus obovatus*, *Maireana triptera* and *Aristida contorta*. This community occurs on deeper soils on hardpan plains.
- **S2** Low sparse woodland of *Acacia aptaneura* with *Acacia pruinocarpa*, *Acacia tetragonophylla*, *Acacia aptaneura* and *Acacia cuspidifolia* over low sparse shrubland of *Ptilotus obovatus*, *Senna glutinosa* subsp. *chatelainiana*, *Senna artemisioides* subsp. x sturtii and *Eremophila spectabilis* subsp. brevis over low sparse chenopod shrubland of *Tecticornia doleiformis*, *Sclerolaena cuneata*, *Maireana aphylla* and *Maireana triptera*. This community occurs on hardpan plains with quartz pebbles.
- **S3** Low sparse woodland of *Acacia aptaneura* and *Acacia ayersiana* over mid sparse shrubland of *Eremophila gilesii* subsp. *variabilis*, *Senna glutinosa* subsp. *chatelainiana*, *Rhagodia eremaea* and *Scaevola spinescens* over low sparse chenopod shrubland of *Maireana tomentosa*, *Enchylaena tomentosa* and *Tecticornia doleiformis*. This community occurs on flats and small rises with ironstone pebbles.
- **S4** Low open woodland of *Acacia cyperophylla* subsp. *cyperophylla* over low sparse shrubland of *Eremophila galeata* over low sparse grassland of *Aristida contorta*.

Hills and Ranges

X1 - Low open woodland of *Acacia rhodophloia* and *Acacia aptaneura* over mid sparse shrubland of *Eremophila galeata* and *Senna artemisioides* subsp. x sturtii over low sparse forbland and grassland of *Heliotropium* sp., *Ptilotus obovatus*, *Tribulus suberosus* and *Enneapogon caerulescens*. This community occurs on low, mid and upper slopes of small ironstone ranges.

Creeks and Drainage lines

- C1 Low open woodland of *Acacia cyperophylla* subsp. *cyperophylla* with scattered *Eucalyptus camaldulensis* over tall open shrubland of *Acacia aptaneura* over sparse shrubland of *Eremophila galeata*, *Acacia tetragonophylla* and *Grevillea deflexa* over low sparse grassland of *Eriachne helmsii* and *Eriachne pulchella* subsp. *dominii*. This community occurs on ephemeral creeks.
- C2 Low open woodland of Acacia aptaneura with Acacia kempeana, Acacia tetragonophylla and Psydrax latifolia over low sparse shrubland of Senna glutinosa subsp. chatelainiana, Senna glutinosa, Senna artemisioides subsp. helmsii and Eremophila spectabilis subsp. brevis over low sparse grassland of Enneapogon caerulescens and Eriachne mucronata and low sparse

forbland of *Ptilotus obovatus*, *Hibiscus burtonii* and *Sida* sp. Dark green fruits (S. van Leeuwen 2260). This community occurs in minor flowlines and creeks with shallow channels.

C3 - Low open woodland of Acacia aptaneura with Acacia rhodophloia and Grevillea berryana over open shrubland of Acacia kempeana over low sparse shrubland of Senna artemisioides subsp. helmsii, Eremophila galeata and Acacia cuthbertsonii over low sparse grassland of Enneapogon caerulescens, Eriachne mucronata and Cymbopogon ambiguus and low sparse forbland of Ptilotus obovatus, Indigofera monophylla and Abutilon cryptopetalum. This community occurs in minor flowlines and creeks with shallow channels.

Clearing Description

Aragon Resources Pty Ltd proposes to clear up to 141 hectares of native vegetation within a total boundary of approximately 392 hectares, for the purpose of mineral production. The project is located approximately 120 kilometres north of Meekatharra in the Shire of Meekatharra.

Vegetation Condition

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994);

To:

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

Comment

The condition of the vegetation under application was determined via a flora and vegetation survey conducted over the application area by Umwelt (Australia) Pty Ltd (2013).

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 proposed clearing of 141 hectares will allow for cutbacks to existing pits, storage of waste rock, relocation of waste rock landforms and ore storage areas (Metals X, 2013).

The application area lies within the Augustus (GAS3) sub-region of the Gascoyne Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This sub-region is characterised by rugged low Proterozoic sedimentary and granite ranges divided by broad flat valleys (CALM, 2002).

A Level 1 flora and vegetation survey was conducted over the application area in 2013 by Umwelt (Australia) Pty Ltd. The condition of the vegetation within the application area is considered to range from 'Completely Degraded' to 'Excellent' (Umwelt, 2013). The local area has been exposed to disturbances such as mineral exploration, vehicle tracks and cattle grazing (Umwelt, 2013).

No Threatened or Priority listed flora species were recorded within the application area and the level and intensity of survey was considered appropriate for the site, given that clearing will facilitate the recommencement of mining activities around existing infrastructure (Umwelt, 2013).

No Threatened Ecological Communities (TECs) are known within the application area (GIS Database) and none were identified during the flora and vegetation survey. However, the application area falls within the boundary of the Robinson Range (Banded Ironstone Formation), Priority Ecological Community (PEC), which has a mapped extent of over 425,000 hectares (GIS Database). One vegetation community (X1) identified within the application area may express similarities with this PEC, however the X1 vegetation community is not located in close proximity to existing infrastructure and is not expected to be impacted by the proposed clearing (Umwelt, 2013).

The Beard vegetation units mapped within the application area (Beard vegetation associations 18 and 39) are well represented (Government of Western Australia, 2015), as are the fauna habitats, which are occur throughout the region (Metals X, 2016).

Portulaca oleracea (a weed species) was recorded within the application area during the flora survey and several others were identified as potentially occurring (Metals X, 2013; Umwelt, 2013). The introduction and/or spread of weeds must be controlled as weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. 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

CALM (2002) Metals X (2016) Umwelt (2013)

GIS Database:

- IBRA WA (Regions Sub Regions)
- Imagery
- Pre-European vegetation
- Threatened and Priority Ecological Communities Buffers
- Threatened and Priority Ecological Communities Boundaries

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

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

Three broad fauna habitats were identified within the application area during a Level 1 fauna survey (Metals X, 2016; Umwelt, 2013)

- Acacia woodland/shrubland (plains), including mulga;
- Creekline vegetation; and
- Acacia woodland (hills)

Sixty four species of vertebrate fauna were recorded within the application area and near vicinity. This included observations or evidence of one species of conservation significance: the Western pebble mound mouse (*Pseudomys chapmani* – P4). Old, abandoned mounds were recorded within the application area. The last specimen collected from the area was in 1994 and it is considered unlikely the western pebble mound mouse persists within the application area (Umwelt, 2013).

An additional two species of conservation significance were considered likely to occur within the application area; the Long-tailed dunnart (*Sminthopsis longicaudata* – P4) and Rainbow bee-eater (*Merops ornatus* - IA) (Umwelt, 2013). Some areas of the application area provide preferred habitat for the Long-tailed dunnart, however given their low abundance and the large amount vegetation that remains in the local area, impacts to this species are not expected to be significant (Umwelt, 2013). The Rainbow bee-eater is likely to utilise drainage lines present within the application area, but is also regularly recorded in disturbed habitats including roadside vegetation and in quarries, mines or gravel pits, where they often breed (DEE, 2016). This species is widely distributed and is unlikely to be significantly impacted by the proposed clearing activities. Potential impacts can be minimised by avoiding clearing during breeding the season.

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

Methodology

DEE (2016) Metals X (2016) Umwelt (2013)

GIS Database:

- DPaW Tenure
- Imagery

(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, no Threatened flora species have been recorded within the local area (20 kilometre radius) (DPaW, 2016). During a Level 1 flora and vegetation survey of the application area, no Threatened flora were recorded or identified as having the potential to occur (Umwelt, 2013).

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

Methodology

DPaW (2016) Umwelt (2016)

GIS Database

- Threatened and Priority Flora

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments Proposal is not at variance to this Principle

According to available datasets, there are no Threatened Ecological Communities (TECs) within the application area (GIS Database). During a level 1 flora and vegetation survey of the application area, no TECs were recorded and none of the vegetation units mapped within the application area were identified as being representative of a TEC (Umwelt, 2013).

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

Methodology Unwelt (2013)

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GIS Database:

- 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 Gascoyne 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, 2015).

The vegetation within the application area has been mapped as Beard vegetation associations 18, and 39 (GIS Database). All of which retain at least 99.8% of pre-European level of vegetation at a state and bioregional level respectively (Government of Western Australia, 2015). Given the amount of vegetation remaining in the local area and bioregion, the vegetation under application is not considered to be significant as 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 - Gascoyne	18,075,219	18,067,441	99.9	Least Concern	~ 10.3
IBRA Subregion – Augustus	9,669,540	9,662,684	99.9	Least Concern	~ 10.3
Beard veg assoc. – State					
18	19,892,305	19,843,727	99.8	Least Concern	~ 6.6
39	6,613,569	6,602,580	99.8	Least Concern	~ 12.0
Beard veg assoc. – Bioregion					
18	3,273,580	3,271,339	99.9	Least Concern	~ 9.7
39	2,338,128	2,337,581	99.9	Least Concern	~ 13.9

^{*} Government of Western Australia (2015)

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:

- DPaW Tenure
- IBRA Australia
- Imagery
- 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 major permanent wetlands or watercourses mapped within the application area, although three minor non-perennial watercourses intersect the application area (GIS Database). Three vegetation communities have been identified growing in association with these drainage lines (Umwelt, 2013), therefore the proposed clearing is considered to be at variance with this Principle. Minor non-perennial watercourses are a common feature throughout the local area and impacts from the proposed clearing are not anticipated to be significant. Potential impacts to vegetation growing in association with a watercourse as a result of the proposed clearing may be minimised by the implementation of a watercourse management condition.

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

Methodology Umwelt (2013)

GIS Database:

- Hydrography, linear
- Hydrography, linear (hierarchy)

^{**} Department of Natural Resources and Environment (2002)

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

Comments Proposal may be at variance to this Principle

The application area is located within the Beasley and Peak Hill land systems of the Murchison River Catchment (GIS Database). The Peak Hill land system is described as rugged, sinuous ranges and rounded hills of Proterozoic banded ironstone and hematitic shale, supporting stunted Mulga and Cottonbush shrublands. This land system is generally not susceptible to erosion as it has dense stony mantles and skeletal soils (Curry et al., 1994). The Beasley Land system is described as low ridges, hills and laterised residuals above stony footslopes and broad, stony lower plains supporting scattered Mulga and Snakewood dominated shrubland (Curry et al. 1994). This land system is mostly resistant to erosion, however drainage tracts are susceptible to minor erosion (Curry et al. 1994) and any areas of new disturbance may be prone to erosion following large rain events if left open for extended periods.

Potential land degradation 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 Curry et al. (1994)

GIS Database

- Soils. Statewide

(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 area. The closest conservation area is situated approximately 20 kilometres south east.

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

Methodology GIS Database:

- DPaW Tenure
- Imagery

(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 (PDWSA) and none occur within a 50 kilometre radius (GIS Database).

Three minor non-perennial watercourses intersect the application area (GIS Database) but are a common feature throughout the local area. The proposed clearing is not anticipated to have a significant impact on the quality of surface water quality.

Groundwater salinity within the application area is between 500 - 1,000 milligrams per litre of Total Dissolved Solids (TDS) (GIS Database). While other mining related activities may impact on the quality of local groundwater, the proposed clearing of 141 hectares of native vegetation within the Gascoyne River catchment area (8,037,381 hectares), in the vicinity of existing mining disturbances, is unlikely to result in adverse impacts to groundwater quality.

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

Methodology Umwelt (2013)

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 Gascoyne region experiences hot dry summers and cool wet winters with both summer and winter rain (Metals X, 2016), although most rainfall falls between January to March (BoM, 2016). Mean annual rainfall for Meekatharra (nearest recording site) is approximately 239 mm and evaporation far exceeds rainfall (BoM, 2016).

Dominant soils are mapped as shallow stony earthy loams (Northcote et al. 1960-68; GIS Database), which are likely to have a relatively high permeability and be free draining. Flooding issues are unlikely to arise as a result of clearing.

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

Methodology BoM (2016)

Metals X (2016)

Northcote et al. 1960-68

GIS Database:

- Hydrography, linear

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

Comments

There is one native title claim over the application area (WC1999/013) (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*.

According to available datasets, there are no Sites of Aboriginal Significance located within the application area (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 7 November 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to this application.

Methodology DAA (2016)

4. References

- BoM (2016) Climate Statistics for Australian Locations. A Search for Climate Statistics, Australian Government Bureau of Meteorology. http://www.bom.gov.au (Accessed November 2016).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management.
- Curry, P.J., Payne, A.L., Leighton, K.A., Hennig, P. and Blood, D.A. (1994) An Inventory and Condition Survey of the Murchison River Catchment and Surrounds, Western Australia.
- DAA (2016) Aboriginal Heritage Inquiry System, Department of Aboriginal Affairs, Perth, Western Australia < http://maps.dia.wa.gov.au> (Accessed November 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.
- DEE (2016) *Merops ornatus* in Species Profile and Threats Database, Department of the Environment and Energy, Canberra < http://www.environment.gov.au > (Accessed November 2016).
- DPaW (2016) NatureMap, Department of Parks and Wildlife http://naturemap.dec.wa.gov.au (Accessed November 2016).
- Government of Western Australia (2015) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2015. 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.
- Metals X (2016) Fortnum Gold Project (Horseshoe Mine) Native Vegetation Clearing Permit Application Supporting Document. Metals X Group, Western Australia, October 2016.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Umwelt (2013) Horseshoe Gold Mine Level 1 Flora & Fauna Survey. Prepared for Grosvenor Gold Pty Ltd by Umwelt (Australia) Pty Limited, August 2013.

5. Glossary

Acronyms:

BoMBureau of Meteorology, Australian GovernmentDAADepartment of Aboriginal Affairs, Western AustraliaDAFWADepartment 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 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)

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 Rights in Water and Irrigation Act 1914. Western Australia

TEC 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.