

Clearing Permit Decision Report

1. Application details

1.1. Permit application details					
Permit application No.:	8256/1				
Permit type:	Purpose Permit				
1.2. Proponent details					
Proponent's name:	Mount Bruce Mining Pty Ltd				
1.3. Property details					
Property:	Iron Ore (Mt Bruce) Agreement Act 1972, Mineral Lease 252SA (AML 70/252)				
Local Government Area:	Shire of Ashburton				
Colloquial name:	Mt Windell Project				
1.4. Application					
Clearing Area (ha) No. 1	rees Method of Clearing For the purpose of:				
40	Mechanical Removal Mineral exploration and associated activities				
1.5. Decision on application					
Decision on Permit Application:	Grant				

Decision on Permit Application:GrantDecision Date:17 January 2019

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	The vegetation of the application area is broadly mapped as the following Beard vegetation associations: 18: Low woodland; mulga (<i>Acacia aneura</i>) ; and 82: Hummock grasslands, low tree steppe; snappy gum over <i>Triodia wiseana</i>			
	 A flora and vegetation survey was conducted over the application area by Astron Environmental Services Pty Ltd (Astron) during August 2017. The following vegetation associations were recorded within the application area (Astron, 2017): HT: Eucalyptus leucophloia scattered low trees over <i>Triodia epactia</i> and <i>Triodia wiseana</i> very open hummock grassland over <i>Themeda triandra</i> open tussock grassland on hill slopes and tops. LH: Corymbia hamersleyana and Eucalyptus leucophloia scattered low trees over <i>Acacia ateedmanii</i> subsp. <i>borealis</i> scattered shrubs over <i>Acacia and Triodia wiseana</i> hummock grassland on low undulating hills. DL: Corymbia hamersleyana and Eucalyptus leucophloia scattered low trees over <i>Acacia atumida</i>, <i>Acacia elachantha</i> and <i>Acacia steedmanii</i> subsp. <i>borealis</i> scattered struba over <i>Triodia epactia</i> and <i>Triodia wiseana</i> hummock grassland on low undulating hills. 			
	 bP: Corymbia hamersleyana and Eucalyptus leucophloia scattered low trees over Eucalyptus gamophylla tall open shrubland over Triodia wiseana and Triodia epactia hummock grassland on drainage plains. P: Corymbia hamersleyana, Eucalyptus leucophloia and Corymbia deserticola scattered low trees over Acacia ayersiana and Acacia aptaneura tall open shrubland over Triodia epactia and Triodia melvillei open hummock grassland on a plain. 			
Clearing Description	Mount Windell.Project Mount Bruce Mining Pty Ltd proposes to clear up to 40 hectares of native vegetation within a boundary of approximately 1,389 hectares, for the purpose of mineral exploration and associated activities. The project is located approximately 41 kilometres south-east of Wittenoom, within the Shire of Ashburton.			
Vegetation Condition	Pristine: No obvious signs of disturbance (Keighery, 1994). To			
	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).			
Comment	The vegetation condition was derived from a vegetation survey conducted by Astron (2017).			

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 likely to be at variance to this Principle

The clearing permit application area is located within the Hamersley subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Pilbara Bioregion (GIS Database). The subregion is characterised by dissected bold plateaux and ranges of flat lying, moderately folded sandstone and quartzite with vegetation described as Mulga low woodland over tussock grasses occurring on fine textured soils in valley floors, with scattered Snappy gum (*Eucalyptus leucophloia*) over *Triodia brizoides* on skeletal soils of the ranges (CALM, 2002; Kendrick, 2001).

A level 1 flora, vegetation and fauna habitat assessment survey was conducted by Astron (2017) over the application area and surrounding areas during August 2017. A total of 144 flora species and 71 fauna species were recorded in the survey area (Astron, 2017). The diversity recorded within the survey area was considered to be typical of the region (Astron, 2017).

Five vegetation associations were recorded in the survey area, none of which represent a Threatened Ecological Community (TEC). The desktop assessment identified one Priority Ecological Community (PEC) "Kumina Land System" (Priority 3) covering 311.1 ha (22.4%) of the northern section of the survey area (DBCA, 2017). The total area recorded of Kumina Land System is ~15,084 ha, approximately 1,415.22 ha is recorded within the vicinity of the proposal (DBCA, 2019). The clearing to the Kumina Land System PEC under this proposal is unlikely to be significant at a regional scale, however it may be significant at a local scale. A restricted clearing condition should be implemented to ensure avoidance to those areas considered most significant (DBCA, 2019).

Desktop surveys of the available databases identified no Threatened flora species and 36 Priority flora species with the potential to occur within the survey area (Astron, 2017). Three priority flora species were recorded during the on-site survey; *Acacia subtiliformis* (P3), *Acacia bromilowiana* (P4) and *Goodenia nuda* (P4). *A. subtiliformis* was recorded in drainage lines and on plains at two locations in the northern section of the survey area. This species may be more widespread throughout similar habitats within the survey area, although due to the December 2016 fire it was difficult to determine whether this is the case (Astron, 2017). *A. bromilowiana* was located from 14 locations from uplands including rocky slopes, gullies and hill crests in the southern section of the survey area (Astron, 2017). *G. nuda* (P4) was recorded from one location on a plateau of a hill top in the southern section of the survey area. Due to the below average rainfall preceding the current survey, this short lived perennial may have been more widespread throughout the southern section of the survey area (Astron, 2017).

Isotropis parviflora (P2) and Eremophila magnifica subsp. magnifica (P4) have been identified in the northern section of the survey area by a previous survey (Rio Tinto Iron Ore, 2017). A further four Priority flora species not found in the survey area are considered to have potential to occur: *Aristida lazaridis* (P2), *Euphorbia australis* var. *glabra* (P2), *Calotis latiuscula* (P3) and *Rostellularia adscendens* var. *latifolia* (P3). These flora species are low-growing shrubs and herbs that may have not been visible at the time of the survey, as seasonal conditions were considered below average. No Threatened flora species or weeds were recorded during the flora survey (Astron, 2017).

Vegetation condition was rated Very Good in the northern section with disturbances from recent fires and minor tracks (Trudgen, 1988). The southern section was rated mostly Excellent with a small section of Completely Degraded vegetation associated with Karijini Drive (Trudgen, 1988).

The vegetation associations, fauna habitats and landform types present within the application area are well represented in surrounding areas (Astron, 2017; GIS Database).

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

Methodology

Astron (2017) CALM (2002) DBCA (2017) DBCA (2019) Kendrick (2001) Rio Tinto Iron Ore (2017) Trudgen (1988)

GIS Database: - IBRA Australia - Pre-European Vegetation

(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

The following five fauna habitats have been recorded within the application area (Astron, 2017): Breakaway, Rocky Hill, Low Hill, Drainage Line and Stony Plain. These habitat types are widespread and common in the Pilbara region, and the application area did not contain any locally restricted habitat types.

Two conservation significant fauna species were recorded in the survey area; the Rainbow Bee-eater (*Merops ornatus*, Schedule 5) and the Western Pebble-mound Mouse (*Pseudomys chapmani*, P4) (Astron, 2017). Desktop surveys identified one species, the Peregrine Falcon (*Falco peregrinus*, Schedule 7 under the WC Act) considered highly likely to occur in the survey area.

Several inactive pebble-mounds from the Western Pebble-mound Mouse were recorded in the Low Hills and Rocky Hills habitats during the survey (Astron, 2017; Anstee, 1996). This species may be impacted by the proposed clearing as they are less mobile and unable to move away from disturbance. However, clearing is unlikely to significantly impact this species given its wide distribution in the Pilbara region. The Rainbow Beeeater and Peregrine Falcon are both habitat generalists and are not reliant on any of the habitats in the survey area. These species are unlikely to be directly impacted by the proposed clearing given that they are highly mobile.

The landforms and habitat types found within the application area are common and widespread in the region (Astron, 2017; GIS Database). The vegetation proposed to be cleared is unlikely to represent significant habitat for fauna in either a local or regional context.

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

Methodology Anstee (1996) Astron (2017)

GIS Database:

- Imagery
- Pre-European Vegetation
- Threatened Fauna

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

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

There are no known records of Threatened flora within the application area (GIS Database). The flora survey of the application area did not record any species of Threatened flora (Astron, 2017).

The vegetation associations within the application area are common and widespread within the region (Astron, 2017; GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened (rare) flora.

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

Methodology Astron (2017)

GIS Database:

- Pre-European Vegetation

- Threatened and Priority Flora

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

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

There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (GIS Database). The flora and vegetation survey of the application area did not identify any TECs (Astron, 2017).

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

Methodology Astron (2017)

GIS Database:

- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments Proposal is not at variance to this Principle

The application area falls within the Pilbara Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Pilbara Bioregion (Government of Western Australia, 2018).

The application area is broadly mapped as Beard vegetation associations 18: Low woodland; mulga (*Acacia aneura*); and 82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana* (GIS Database). Approximately 99% of the pre-European extent of each of these vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2018).

Therefore, the application area does not represent a significant remnant of native vegetation in an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA managed lands	
IBRA Bioregion – Pilbara	17,808,657.05	17,733,583.88	~99	Least Concern	10.12 (10.16)	
Beard vegetation associations – WA						
18	19,892,306.48	19,843,729.06	~99	Least Concern	6.62 (6.64)	
82	2,565,901.27	2,553,217.03	~99	Least Concern	11.52 (11.58)	
Beard vegetation associations – Pilbara Bioregion						
18	676,556.72	672,424.32	~99	Least Concern	25.17 (25.33)	
82	2,563,583.23	2,550,898.98	~99	Least Concern	11.53 (11.59)	

* Government of Western Australia (2018)

** 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 (2018)

GIS Database:

- IBRA Australia
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is at variance to this Principle

There are no permanent watercourses or wetlands within the area proposed to clear (Astron, 2017; GIS Database). A number of minor drainage lines intersect with the application area or are in the vicinity. None of these represent riparian habitat, had permanent water, or groundwater dependent vegetation associated with them.

The Nationally Important Wetland 'Karijini (Hamersley Range Gorges)' is 4.3 km north of the survey area (Department of the Environment and Energy, 2017), and the drainage systems from the gorge extend into the north-west of the northern section of the survey area. Proposed exploration and development activities may have an effect on this significant wetland. Potential impacts on riparian vegetation 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 Astron (2017)

GIS Database:

- Hydrography, Lakes

- 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

The application area lies within the Boolgeeda, Kumina, Newman and Platform land systems (GIS Database). These land systems have been mapped and described in technical bulletins produced by the former Department of Agriculture (now the Department of Primary Industries and Regional Development).

The Boolgeeda land system consists of stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands. This land system is not generally susceptible to erosion (Van Vreeswyk et al., 2004).

The Kumina land system consists of duricrust plains and plateau remnants supporting shrubby hard spinifex grasslands. This land system is inherently resistant to erosion because of its very stony nature (Van Vreeswyk et al., 2004).

The Newman Land System consists of rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands. This land system is not generally susceptible to erosion (Van Vreeswyk et al., 2004).

The Platform land system consists of dissected slopes and raised plains supporting shrubby hard spinifex grasslands. This land system is not generally susceptible to erosion (Van Vreeswyk et al., 2004).

The proposed clearing of up to 40 hectares of native vegetation within a boundary of approximately 1,389 hectares, for the purpose of mineral exploration is unlikely to cause appreciable land degradation.

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

Methodology Astron (2017) Van Vreeswyk et al. (2004)

> GIS Database: - Landsystem Rangelands

(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 may be at variance to this Principle

There are no conservation areas in the vicinity of the application area. The nearest DBCA (formerly DPaW) managed land is Karijini National Park which borders the northern edge of the application area (GIS Database).

No weeds were recorded during the flora survey (Astron, 2017). Strict hygiene measures need to be applied to ensure weeds do not spread into the National Park and impact on Karijini National Park's environmental values. Potential impacts may be minimised by the implementation of a weed management confition.

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

- Methodology Astron (2017)
 - GIS Database:
 - DPaW Tenure
 - EPA Redbook

(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

There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). Several minor drainage lines pass through the application area (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall. The proposed clearing is unlikely to result in significant changes to surface water flows.

Groundwater quality is 500 – 100 TDS (mg/L) which is marginal water quality. The proposed clearing is unlikely to cause deterioration in the quality of underground water.

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

Methodology GIS Database:

- Public Drinking Water Source Areas

- Groundwater Salinity, statewide

(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 climate of the region is arid, with a low average rainfall of approximately 463 millimetres per year (BOM, 2018). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (Van Vreeswyk et al. 2004).

There are no permanent water courses or waterbodies within the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.

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

Methodology BOM (2018) Van Vreeswyk et al. (2004)

> GIS Database: - Hydrography, linear

Planning Instrument, Native Title, previous EPA decision or other matter.

Comments

The clearing permit application was advertised on 3 December 2018 by the Department of Mines, Industry Regulation and Safety (DMIRS), inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim over the area under application (DPLH, 2018). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2018). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

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

Methodology DPLH (2018)

4. References

- Anstee, S (1996) 'Use of External Mound Structures as Indicators of the Presence of the Pebble-mound Mouse, *Pseudomys chapmani*, in Mound Systems', Wildlife research, vol. 23, pp. 429-34.
- Astron (2017) Mt Windell Flora, Vegetation and Fauna Habitat Assessment Survey, prepared for Mount Bruce Mining Pty Ltd. BoM (2018) Bureau of Meteorology Website – Climate Data Online, Wittenoom Station. Bureau of Meteorology. <u>http://www.bom.gov.au/climate/data/</u> (Accessed 13 December 2018).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DBCA (2017), 'Threatened and Priority Ecological Communities database', Department of Biodiversity, Conservation and Attractions.
- DBCA (2019) Advice received in relation to Clearing Permit Application CPS 8256/1. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, January 2019.
- DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage.
 - http://maps.daa.wa.gov.au/AHIS/ (Accessed 13 December 2018).

Department of the Environment and Energy (2017), 'Directory of Important Wetlands in Australia', Commonwealth of Australia. 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 (2018) 2017 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2017. WA Department of Biodiversity, Conservation and Attractions. https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Kendrick, P (2001), Pilbara 3 (PIL3 Hamersley Subregion), A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002, Department of Conservation and Land Management, Perth.
- Rio Tinto Iron Ore (2017) Threatened and Priority Database Search.
- Tudgen, M (1988) A Report of the Flora and Vegetation of the Port Kennedy Area, unpublished report to Bowman Bishaw and Associates.
- Van Vreeswyk, A.M.E., Payne, A.L., Hennig, P., and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia. Department of Agriculture, Western Australia.

5. Glossary

Acronyms:

ВоМ	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
DWER	Department of Water and Environmental Regulation, Western Australia
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
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	Rights in Water and Irrigation Act 1914, Western Australia
TEC	Threatened Ecological Community

Definitions:

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

T 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 1950*.

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 1950*.

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.