Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7356/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **GMA Garnet Pty Ltd**

1.3. Property details

Property: Mining Lease 70/926
Local Government Area: Shire of Northampton
Colloquial name: Port Gregory Mine

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
29		Mechanical Removal	Extraction of Garnet Ore

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 18 January 2017

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

Beard vegetation associations have been mapped for the whole of Western Australia. Two Beard vegetation associations have been mapped within the application area (GIS Database).

17: Shrublands; *Acacia rostellifera* thicket; and
371: Low forest; *Acacia rostellifera*.

A vegetation survey was undertaken by GHD (2016) within the application area on 23 August 2016. Four vegetation types were delineated:

1: *Acacia rostellifera* Low Forest: Low Woodland to Open Forest of *Acacia rostellifera* over Scattered Shrubs of *Rhagodia preissii* subsp. *obovata*, *Stylobasium spathulatum*, *Pimelea microcephala* with *Commicarpus australis*, *Zygophyllum fruticulosum*, *Tetragonia implexicoma* over Open Tussock Grassland of *Bromus diandrus*, *Avena barbata*, *Ehrharta longiflora* over Mixed Herbs of *Urospermum picroides*, *Sonchus oleraceus*, *Lysimachia arvensis*, *Arctotheca calendula*, *Trifolium* spp. on sandy soils.

2: *Acacia rostellifera* Tall Open Shrubland: Tall Open Shrubland of *Acacia rostellifera* over Scattered Shrubs of *Rhagodia preissii* subsp. *obovata*, with *Commicarpus australis*, *Enchylaena tomentosa*, *Tetragonia implexicoma*, *Solanum nigrum* over Open Tussock Grassland of *Bromus diandrus*, *Avena barbata*, *Ehrharta longiflora* over Mixed Herbs of *Urospermum picroides*, *Sonchus oleraceus*, *Lysimachia arvensis*, *Arctotheca calendula*, *Trifolium* spp. On sandy soils.

3: *Acacia rostellifera* Low Shrubland on Shallow Soils: Shrubland of *Acacia rostellifera* over Low Open Shrubland of *Scaevola tomentosa*, *Enchylaena tomentosa*, *Rhagodia* spp., with *Acanthocarus preissii*, *Pimelea microcephala* over Open Tussock Grassland of *Bromus diandrus*, *Avena barbata*, *Ehrharta longiflora* over Mixed Herbs of *Urospermum picroides*, *Sonchus oleraceus*, *Lysimachia arvensis*, *Arctotheca calendula*, *Hypochaeris glabra* on shallow sandy and limestone soils.

4: Cleared/Degraded: Cleared Tracks and firebreaks, old paddocks with scattered regrowth of *Acacia rostellifera*, pasture grasses and weeds.

Clearing Description

Port Gregory Mine

GMA Garnet Pty Ltd proposes to clear up to 29 hectares of native vegetation within a total boundary of approximately 126.5 hectares for the purpose of garnet extraction. The project is located approximately 12 kilometres north of Port Gregory in the Shire of Northampton.

Vegetation Condition

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

To:

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).

Comment The vegetation condition was assessed by botanists from GHD (2016).

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 may be at variance to this Principle

The application area occurs within the Geraldton Hills subregion of the Geraldton Sandplains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). At a broad scale vegetation can be described as sand heaths with emergent *Banksia* and *Actinostrobus,* York Gum woodlands on limestones depending on depth of coastal-sand mantle, low closed forest of *Acacia rostellifera* (now cleared) on alluvial plains of Greenough and Irwin River (behind beach dune system south of Geraldton) (CALM, 2002).

The application area consists of *Acacia rostellifera* thicket and *Acacia rostellifera* low forest with a disturbed understorey. *Acacia rostellifera* forest has been identified as being a rare feature within this subregion (CALM, 2002). The majority of the understorey consists of agricultural weeds resulting in the application area being in a predominately 'degraded' condition according to the Keighery (1994) scale.

Given the application area consists largely of *Acacia rostellifera* and weed species, it is not likely to represent an area of high floristic diversity. No Threatened or Priority Flora species have been recorded within the application area (GHD, 2016; GIS Database). Given its degraded state, the application area is not likely to provide as significant habitat for rare and priority flora as the adjacent Utcha Well Nature Reserve (GHD, 2016; GIS Database).

Similarly, the degraded state of the application area is likely to result in there being a low level of faunal diversity. The application area may provide an ecological linkage between the Utcha Well Nature Reserve and other areas of remnant vegetation, however, the link is not likely to be a strong one.

Whilst the application area is representative of a rare vegetation association, there is a larger area of this vegetation in a better condition in the adjacent Utcha Well Nature Reserve (GHD, 2016; GIS Database).

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

Methodology

CALM (2002)
GHD (2016)

GIS Database:
- IBRA Australia
- Threatened and Priority Flora
- 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 may be at variance to this Principle

According to available databases, there are no records of Threatened fauna within a 10 kilometre radius of the application area (DPaW, 2017).

A fauna field survey was conducted in conjunction with the flora survey in August 2016 (GHD, 2016). The survey was limited to daylight hours and only examined terrestrial animals occurring in the Survey Area. As a result of the small survey area and limited survey time, 17 birds and six mammals were recorded during the field survey, none of which are of conservation significance (GHD, 2016). The cold climatic conditions (Winter) resulted in no reptiles being observed (GHD, 2016). Two broad habitat types were recorded during the survey:

- Acacia Scrub on Sandy Soils; and
- Cleared and Degraded (Paddock) areas.

These habitats are closely associated with vegetation in the wider survey area, and are found in similar condition in the local and regional areas (GHD, 2016).

There is the potential that the application area may provide an ecological linkage. The application area is situated on intermediate slopes between the dune system in the east and the coastal plains in the west. The majority of these intermediate slopes have been cleared for agriculture (GIS Database). The George Grey Drive runs adjacent to the application area on the western side, with the Utcha Well Nature Reserve being located on the opposite side of the road (GHD, 2016; GIS Database). The application area currently forms part of the broader north-south link that currently runs along the limestone ridge to the east of the application area (GHD, 2016). The application area is not directly linked via vegetation to Utcha Well Nature Reserve to the west of George Grey Drive nor the Hutt Lagoon due to previous clearing and the degraded nature of the vegetation (GIS Database).

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

Methodology DPaW (2017)
GHD (2016)

GIS Database:
- Imagery
- Hydrography, Linear

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

Comments **Proposal is not likely to be at variance to this Principle**
According to available databases, there are no known records of Threatened flora within the application area (DPaW, 2017; GIS Database). There is a record of the Threatened flora species *Caladenia bryceana* subsp. *cracens* approximately 14 kilometres north of the application area (GIS Database). South of Kalbarri it is usually found in low heath on limestone hills (DPaW, 2017). It is not likely that suitable habitat exists for conservation significant flora known from the local area (GHD, 2016). A flora survey of the application area was conducted by GHD (2016) on 23 August 2016. This survey did not record any species listed as Threatened (GHD, 2016).

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

Methodology DPaW (2017)
GHD (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 likely to be at variance to this Principle**
According to available databases, there are no records of Threatened Ecological Communities (TEC's) within the application area (GIS Database). A Level 1 survey of the application area was conducted by GHD on 23 August 2016. This survey did not identify any vegetation communities listed as a TEC (GHD, 2016).

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

Methodology GHD (2016)

GIS Database:
- Threatened Ecological Sites Buffered

(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 at variance to this Principle**
The application area falls within the Geraldton Sandplains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion in which approximately 42.77% of Pre-European vegetation remains (see table) (GIS Database; Government of Western Australia, 2015).

The vegetation of the application area has been mapped as Beard Vegetation Associations 17: Shrublands; *Acacia rostellifera* thicket and 371: Low forest; *Acacia rostellifera* (Government of Western Australia, 2015).

According to the Government of Western Australia (2015) approximately 88% of Beard Vegetation Association 17 remains at a State level, approximately 84% at a bioregional level and approximately 85% at a subregional level. For Beard Vegetation Association 371, approximately 10.7% remains at a state, bioregion and subregional level. This is below the 30% threshold below which species loss appears to accelerate exponentially (EPA, 2000). Vegetation Associations with representations below 30% within the bioregion are classed as being critical assets (EPA, 2000).

The proposed clearing of approximately 15 hectares (GHD, 2016) within Beard Vegetation Association 371 will reduce the current extent to approximately 10.6%. This will maintain the current conservation status of this Vegetation Association as 'Vulnerable,' however it is approaching the 10% threshold at which this vegetation association would be considered 'Endangered.'

The condition of the vegetation was 'degraded' with parts of the application area that could be classified as 'good'. The application area has been grazed in the past and the understorey is predominantly agricultural weeds. The application area is not likely to return to a 'good' condition without intensive management. Rehabilitation work previously carried out by GMA Garnet suggests that regeneration of *Acacia rostellifera* is

easily achieved by replacing the topsoil (BSD Consultants, 1996). If the area was rehabilitated and the weeds removed, it may result in the application area being in better condition than what is currently present.

Where native vegetation clearing proposals will impact upon a critical asset it is advised that offsets are required. The Environmental Protection Authority's Position Statement No. 9 '*Environmental Offsets*' defines environmental offsets to be 'environmentally beneficial activities undertaken to counterbalance an adverse environmental impact, aspiring to achieve no net environmental loss or a net environmental benefit outcome'. Critical assets are defined as 'the most important environmental assets in Western Australia that must be fully protected and conserved for the state to meet its statutory requirements and to remain sustainable in the longer term' (EPA, 2006).

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW Managed Land
IBRA Bioregion - Geraldton Sandplains	3,136,038	1,404,373	~44.78	Depleted	18.17
Beard vegetation associations - State					
17	19,892,305	19,843,727	~99.76	Least Concern	6.62
371	2,565,901	2,553,217	~99.51	Least Concern	11.51
Beard vegetation associations - Bioregion					
17	54,078	45,160	~83.51	Least Concern	11.24
371	32,808	3,499	~10.67	Least Concern	0.87

* Government of Western Australia (2015)
** Department of Natural Resources and Environment (2002)

Based on the above, the proposed clearing is at variance to this Principle. In accordance with EPA Position Statement No. 9, it is recommended that should a clearing permit be granted, a condition be imposed requiring the proponent to develop and implement an environmental offset within the Geraldton Hills IBRA subregion. The environmental offset proposal must be endorsed by the decision maker prior to any native vegetation clearing being undertaken, and must focus on offsetting the loss of critical assets (Beard Vegetation Association 371) (EPA, 2006).

Methodology
BSD Consultants (1996)
Department of Natural Resources and Environment (2002)
EPA (2000)
EPA (2006)
GHD (2016)
Government of Western Australia (2015)

GIS Database:
- IBRA WA (Regions - Sub Regions)
- Pre-European Vegetation

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

Comments

Proposal is not likely to be at variance to this Principle
According to available databases, there are no watercourses or wetlands within the application area (GIS Database). There is a low surface runoff due to the high infiltration rates associated with the sand and sandy soils present within the application areas (GHD, 2016).

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

Methodology GHD (2016)

GIS Database:
- Geodata, 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 may be at variance to this Principle

The application area is located on the Tamala Limestone Unit which overlies the Tumblagooda Sandstone Unit of the Perth Basin (Playford et al., 1976). The landforms of the application area are part of the Tamala North 1 subsystem, which is described as undulating rises and swales associated with coastal parabolic dunes, featuring some limestone outcrop (DAFWA, 2010). The application area itself is described as sloping sandplain (DAFWA, 2010).

The soils of the application area have been described as deep sands (DAFWA, 2010). These deep sands present are internally draining with no obvious surface drainage from the area (DAFWA, 2010). The proposed clearing is not likely to contribute to water erosion given the deep sands would facilitate high infiltration rates with little runoff (DAFWA, 2010).

At a broad scale the surface soil within the application area pH is 5.5 – 6.0 and there is no known occurrence of acid sulphate soils (CSIRO, 2014). As the application area is already within a predominantly cleared agricultural landscape, it is not likely that the proposed clearing will contribute to a rise in groundwater table and salinity (DAFWA, 2010).

The deep sands of the application area have a high to very high wind erosion risk (DAFWA, 2010).

GMA Garnet has advised that before an area is mined it is cleared of larger vegetation using a raised blade technique (GHD, 2016). This is done before winter to allow rain to wash into the soil. The proposed timing and technique of the clearing will preserve root stock and encourage grass cover on the soil surface, thereby binding soils. This helps control erosion until mining commences. Potential impacts caused by erosion 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

DAFWA (2010)
CSIRO (2014)
GHD (2016)
Playford et al. (1976)

GIS Database:
- Rangeland Land System Mapping
- Topographic Contours, 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 may be at variance to this Principle

According to available databases, the application area is not located within any conservation area or DPaW managed lands (GIS Database). The Utcha Well Nature Reserve is located approximately 50 metres west of the application area (GIS Database). The application area was previously part of the Utcha Well Nature Reserve. In October 2006 it was excised from the nature reserve as part of a land swap that resulted in a larger area of land that is in much better condition than that of the application area being included into the Utcha Well Nature Reserve.

The proposed clearing may disrupt an ecological linkage between the nature reserve and other areas of remnant vegetation. Whilst highly mobile species such as birds may not be disrupted, the proposed clearing may disrupt some ecological linkages to the Utcha Well Nature Reserve.

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

Methodology

GIS Database:
- DPaW Tenure
- Register of National Estate (Status)

(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) (GIS Database).

There are no watercourses or wetlands within the application area (GIS Database). The average rainfall for Kalbarri (approximately 40 kilometres north) is 350 millimetres and the average annual evaporation rate is 2,600 millimetres (BoM, 2017; GIS Database). The soils within the application areas have a high infiltration rate so there is likely to be little surface runoff into lower lying areas west of the application areas (GHD, 2016).

The groundwater salinity of the application area is between 1,000 – 3,000 milligrams per litre Total Dissolved

Solids (TDS) (GIS Database). This is considered to be brackish. As the application area is already within a predominantly cleared agricultural landscape, it is not likely that the proposed clearing will adversely impact on groundwater quality (DAFWA, 2010).

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

Methodology BoM (2017)
DAFWA (2010)
GHD (2016)

GIS Database:
- Evaporation Isopleths
- Hydrography, Linear
- Public Drinking Water Source 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 soils of the application area facilitate high infiltration rates with little surface runoff (DAFWA, 2010). The annual average evaporation rate is over 7 times the annual average rainfall (BoM, 2017, GIS Database). Despite the application area being on sloping sandplain, there is likely to be little surface water runoff. The proposed clearing is not likely to cause an increase in flooding to areas subject to inundation west of the application area.

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

Methodology BOM (2017)
DAFWA (2010)

GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There is one native title claim over the area under application; WC00/001 (DAA, 2017). 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*.

According to available databases, there are no registered Aboriginal Sites of Significance within the application area (DAA, 2017). 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 Regulation, Department of Parks and Wildlife and the Department of Water to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The clearing permit application was advertised on 12 December 2016 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

Methodology DAA (2017)

4. References

BoM (2016) Bureau of Meteorology Website - Climate statistics for Australian locations, Kalbarri. Available online at: http://www.bom.gov.au/climate/averages/tables/cw_008251.shtml Accessed on 16 January 2017.

BSD Consultants (1996) Preliminary Mining Proposal Proposed Garnet Mine GMA Garnet Pty Ltd Application For Mining Lease 70/927 "C" Class Conservation Reserve No. 640 (Utcha). Unpublished report prepared by BSD Consultants for GMA Garnet Pty Ltd, May 1996.

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Geraldton Sandplains 2 (GS2 - Geraldton Hills subregion) Department of Conservation and Land Management, Western Australia.

CSIRO (2014) Australian Soil Resource Information System. Available online at: http://www.asris.csiro.au/index_ie.html Accessed on 03 August 2015.

DAA (2016) Aboriginal Heritage Inquiry System, Government of Western Australia, Department of Aboriginal Affairs, Perth < http://maps.dia.wa.gov.au/AHIS2/> accessed 16 January 2017.

DAFWA (2010) Land Degradation Advice. Advice to assessing officer of CPS 3544/1, Native Vegetation Assessment Branch, Department of Mines and Petroleum. Received 10 March 2010. Department of Agriculture and Food, Western

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.
DPaW (2017) NatureMap Department of Parks and Wildlife, <http://naturemap.dec.wa.gov.au> accessed 16 January 2017.
EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority, Western Australia.
EPA (2006) Environmental Offsets. Position Statement No. 9. January 2006. Environmental Protection Authority.
GHD (2016) GMA Port Gregory Mining Lease M70/926 Supporting Documentation for Clearing Permit Application. Unpublished report prepared by GHD for GMA Garnet Pty Ltd, October 2016.
Government of Western Australia (2015) 2015 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.
Playford, P.E., Cockbain, A.E. and Low, G.H. (1976) Geology of the Perth Basin, Western Australia. Bulletin 124, Geological Survey of Western Australia.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DPaW and DER)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
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 (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.