Government of Western Australia
Department of Mines, Industry Regulation and Safety

# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

**Permit application No.:** 7734/1
**Permit type:** Purpose Permit

### 1.2. Proponent details

**Proponent's name:** **TIANYE SXO GOLD MINING PTY LTD**

### 1.3. Property details

**Property:** General Purpose Lease 77/2
Miscellaneous Licences 77/7, 77/137, 77/162
Mining Leases 77/239, 77/791, 77/977
**Local Government Area:** Shire of Yilgarn
**Colloquial name:** Marvel Loch Project

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|---|---|---|---|
| 145 | | Mechanical Removal | Mineral Production |

### 1.5. Decision on application

**Decision on Permit Application:** Grant
**Decision Date:** 12 October 2017

## 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:
1068: Medium woodland; salmon gum, morrel, gimlet and *Eucalyptus sheathiana*; and
1413: Shrublands; acacia, casuarina and melaleuca thicket.

A targeted flora, vegetation and fauna survey was conducted over the application area in May 2017. The following vegetation associations were identified within the survey area, not including previously disturbed areas:

- **EsOW**: *Eucalyptus salmonophloia* and *Eucalyptus salubris* open woodland on clay loam plain;
- **AbMhS**: *Acacia beauverdiana* and *Melaleuca hamata* shrubland on clay loam plain;
- **AaAcMhTOS**: *Allocasuarina* spp. and *Melaleuca hamata* tall open shrubland on clay loam plain and low rises;
- **AbAaTS**: *Acacia beauverdiana* and *Allocasuarina acutivalvis* subsp. *acutivalvis* tall shrubland on clay loam plain; and
- **AaMhCcTOS**: *Allocasuarina acutivalvis* subsp. *acutivalvis*, *Melaleuca hamata* and *Callitris columellaris* tall open shrubland on sand plain.

**Clearing Description**

Tailings Storage Facility 3 Project.
Tianye SXO Gold Mining Pty Ltd (Tianye) proposes to clear up to 145 hectares of native vegetation within a boundary of approximately 317 hectares, for the purpose of mining-related infrastructure. The project is located approximately 2 kilometres east of Marvel Loch, within the Shire of Yilgarn.

**Vegetation Condition**

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

To

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

**Comment**

The vegetation condition was derived from a targeted flora and vegetation survey conducted by Eco Logical Australia (2017).

The proposed clearing is for a tailings storage facility and associated infrastructure (Minjar Gold, 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 not likely to be at variance to this Principle**

The application area is located within the Southern Cross subregion of the Coolgardie Bioregions of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). The Southern Cross subregion is characterised by gently undulating uplands dissected by broad valleys with bands of low greenstone hills. Valleys have Quartenary duplex and gradational soils, and include chains of saline playa-lakes. The vegetation of this subregion is dominated by diverse Eucalyptus woodlands (*Eucalyptus salmonophloia*, *E. salubris*, *E. transcontinentalis*, *E. longicornis*) rich in endemic eucalypts which occur around the salt lakes, on the low greenstone hills, valley alluvials and broad plains of calcareous earths (CALM, 2002).

A flora and vegetation survey of the clearing permit application area was conducted in May 2017. A total of 53 dominant native flora taxa were identified within the study area, representing 15 families and 25 genera (Eco Logical Australia, 2017). No weed species were identified within the study area.

No Threatened Ecological Communities have been recorded within or in close proximity to the application area and none were found during the survey (Eco Logical Australia, 2017; GIS Database). The Priority Ecological Community (PEC) 'Parker Range vegetation complexes' (P3) is mapped as overlapping the application area. The PEC is analogous with the vegetation community 'AaAcMhTOS – *Allocasuarina* spp. and *Melaleuca hamata* and *Callitris columellaris* tall open shrubland' which occurs in the north-western corner of the project area.

The PEC covers 24.8 ha of the application area (10.4%), including 15.4 ha within the proposed mining disturbance footprint. The occurrence of this PEC within the application area accounts for 0.04% of the total area for this PEC. The occurrence of the PEC within the application area is on the outer edge of the PEC's distribution and therefore will not cause any major fragmentation.

No Threatened flora taxa were recorded in the study area (Eco Logical Australia, 2017).

Three Priority Flora species (*Acacia crenulata* (P3), *Hakea pendens* (P3) and *Stenanthemum bremerense* (P4)) were recorded within the proposed permit boundary (Eco Logical Australia, 2017). A number of these records were from areas previously disturbed and rehabilitated (Eco Logical Australia, 2017).

*Acacia crenulata* (P3) was recorded from 12 locations with a total of 131 individuals recorded and expected to be impacted. Most of these individuals were found confined to mixed *Allocasuarina* and *Melaleuca* shrublands on clay loam soils, however there are some individuals occurring within the rehabilitation areas (Eco Logical Australia, 2017). This species is known from 36 records, extending over a range of approximately 250 kilometres (Eco Logical Australia, 2017). Of these records, 14 occur within five different conservation reserves.

*Hakea pendens* (P3) was recorded from 72 locations within the study area, with a total of 398 individuals recorded in the north-western section of the study area. This species was found to be confined to mixed *Allocasuarina* and *Melaleuca* shrublands on clay loam soil in the north-eastern section of the study area. Of the 72 records, 62.5% were recorded within the proposed mining footprint (45 records). The remaining 37.5% were recorded within the application area, however, they are outside the proposed mining footprint. This species has been recorded over a range of approximately 165 kilometres, including within the Jibadji Nature Reserve. There have been a further 35 records within a 30 kilometre radius of the study area (Eco Logical Australia, 2017).

*Stenanthemum bremerense* (P4) was recorded from 108 locations within the study area, with a total of 1195 individuals recorded in the north-western section of the study area. The species was found to be largely confined to mixed *Allocasuarina* and *Melaleuca* shrublands on clay loam soils in the north-eastern section of the study area, with 77% (83 records) occurring in this habitat. The remaining records were found in mixed *Acacia*, *Allocasuarina* and *Eucalyptus* shrubland/woodland on clay loam plains. Of the 108 records, 68% were recorded within the proposed mining footprint (73 records), while the remaining 32% were recorded in the application area but outside the proposed footprint (35 records). This species is known to occur over a range of approximately 180 kilometres. There are a further 35 records within a 30 kilometre radius of the study area.

The vegetation associations within the application area are relatively widespread within the region (Minjar Gold, 2017; GIS Database). The Priority Flora recorded within the proposed clearing footprint are not restricted to the application area and the proposed clearing is unlikely to impact the conservation status of this species.

The vegetation condition of the study area ranged from Good to Excellent, with majority being Very Good. Some of the vegetation has been previously disturbed, however, rehabilitation has occurred and regeneration was from soil seed bank with low weed cover (Eco Logical Australia, 2017)

Eco Logical Australia (2017) conducted a Level 1 fauna survey to identify if the study area contained any previously unrecorded conservation significant species or communities. The study comprised a desktop review and a reconnaissance field survey. The study area had been impacted by rabbit grazing and is not expected to comprise a high level of biological diversity (Minjar Gold, 2017).

The majority of the Coolgardie Bioregion uncleared (Government of Western Australia, 2016), and the landforms, vegetation associations and fauna habitat types found within the application area are well represented within the region (Eco Logical Australia, 2017; Minjar Gold, 2017; GIS Database).

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

**Methodology** CALM (2002)
Eco Logical Australia (2017)
Government of Western Australia (2016)
Minjar Gold (2017)

GIS Database:
- IBRA Australia
- Pre-European Vegetation
- Threatened Ecological Sites Buffered

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

**Comments**

**Proposal may to be at variance to this Principle**

A Level 1 fauna and habitat survey was conducted over the application area and surrounding areas in May 2017 (Eco Logical Australia, 2017). The survey comprised a desktop search of relevant fauna databases and a field reconnaissance survey.

Eco Logical Australia (2017) identified the following four habitat types within the application area:

- *Acacia* and *Allocasuarina* shrubland on sandy loam over gravel;
- Mixed tall open shrubland on clay loam plains and low rises;
- Mixed tall open shrublands on yellow sandplains; and
- Open E*ucalyptus* spp. woodland on clay loam plains.

None of these habitat types are restricted to the clearing permit application area and are well represented in the surrounding region. The most restricted fauna habitat type was 'Mixed tall open shrublands on yellow sandplains'. This fauna habitat occurred in the north-east corner of the study area and did not occur inside the proposed mining footprint.

An assessment of fauna habitat in terms of its ability to support and sustain populations of fauna, along with an assessment of the likelihood of occurrence of conservation significant fauna species was undertaken during the survey. The targeted survey involved personnel walking targeted transects across the study area with variable transect spacing.

One fauna species of conservation significance was inferred from the study area. This was the Malleefowl (*Leipoa ocellata*), listed as Vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* and as Schedule 3 under the *Wildlife Conservation Act 1950* (WA). The record was inferred from one mound, not currently active but thought to have been active in the last 12 months, due to the presence of leaf litter in the mound centre and lack of erosion on the mound form. The Malleefowl mound was recorded in the study area within the fauna habitat type '*Acacia* and *Allocasuarina* shrubland on sandy loan over gravel'.

The fauna habitats found within the application area are not significant habitat and are well represented within the region (Eco Logical Australia, 2017; Minjar Gold, 2017). One recently active Malleefowl mound was identified within the application area, however, the Malleefowl is a widespread species across the southern half of Western Australia and the application area is surrounded by extensive and intact vegetation (Eco Logical, 2017). Given the mound is likely to have been active within the previous 12 months, potential impacts to Malleefowl may be minimised by the implementation of a fauna management condition requiring that the application area be searched by a suitably qualified fauna specialist prior to any clearing occurring during Malleefowl breeding season.

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

**Methodology** Eco Logical (2017)
Minjar Gold (2017)

**(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 and based on desktop surveys, none are likely to occur (Minjar Gold, 2017; GIS Database).

A flora and vegetation survey of the project area was conducted in May 2017 and no Threatened flora taxa were recorded in the study area (Eco Logical Australia, 2017).

The vegetation associations within the application area are relatively widespread within the region (Minjar Gold, 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** Eco Logical Australia (2017)
Minjar Gold (2017)

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**

There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (GIS Database).

Surveys of the application area did not identify any TECs (Eco Logical Australia, 2017).

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

**Methodology** Eco Logical Australia (2017)

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 not at variance to this Principle**

The area applied to be cleared is located within the Coolgardie IBRA bioregion (GIS Database). There is approximately 97% of the pre-European vegetation remaining within this bioregion (Government of Western Australia, 2015).

The application area is broadly mapped as Beard vegetation associations: 1068: Medium woodland; salmon gum, morrel, gimlet and *Eucalyptus sheathiana*; and 1413: Shrublands; *acacia*, *casuarina* and *melaleuca* thicket (GIS Database). Approximately 52% and 76% respectively of the pre-European extent of each of these vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2016). Hence, the vegetation proposed to be cleared does not represent a significant remnant of vegetation in an area that has been extensively cleared.

| | Pre-European area (ha)* | Current extent (ha)* | Remaining %* | Conservation Status** | Pre-European % in DPaW managed lands |
|---|---|---|---|---|---|
| IBRA Bioregion – Coolgardie | 12,912,204 | 12,648,491 | 97 | Least Concern | 16 |
| Beard vegetation associations – WA | | | | | |
| 1068 | 268,899 | 142,087 | 52 | Least Concern | 6 |
| 1413 | 1,679,917 | 1,286,966 | 76 | Least Concern | 13 |
| Beard vegetation associations – Coolgardie Bioregion | | | | | |
| 1068 | 193,988 | 104,804 | 54 | Least Concern | 7 |
| 1413 | 1,061,213 | 1,061,213 | 98 | Least Concern | 18 |

* Government of Western Australia (2016)
** 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 (2016)

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 not at variance to this Principle**

There are no permanent watercourses or wetlands within or in close proximity to the application area (Minjar Gold, 2017; GIS Database).

The closest watercourse is a minor ephemeral creekline across a public road and approximately 50 metres to the east of the application area. There has been no riparian vegetation identified within the application area (Eco Logical Australia, 2017; Minjar Gold, 2017; GIS Database).

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

**Methodology** Eco Logical Australia (2017)
Minjar Gold (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 geology of the Project area has been mapped at a regional scale, and includes:
- Amphibolite;
- Foliated, gneissic and migmatitic granitoid;
- Metamorphosed ultramafic rock dominant; and
- Metasedimentary rock dominant.

These geological types are generally durable and not likely to erode (Minjar Gold, 2017).

Tianye has committed that clearing will not be undertaken until construction is imminent to minimise erosion risks (Minjar Gold, 2017). The amount of clearing is relatively large (145 hectares) and if large areas are left cleared for extended periods there is risk of land degradation. Potential impacts from erosion may be minimised by the implementation of a staged clearing condition.

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

**Methodology** Minjar Gold (2017)

**(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.**

**Comments**

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

There are no conservation areas in the vicinity of the application area. The nearest Department of Biodiversity Conservation and Attractions (formerly Department of Parks and Wildlife) managed lands are the Yellowdine Nature Reserve and Jilbadji Nature Reserve located approximately 18 kilometres north-east and south-east of the application area respectively (Minjar Gold, 2017; GIS Database). The proposed clearing is unlikely to impact on the environmental values of any conservation area or any ecological linkages to conservation areas.

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

**Methodology** Minjar Gold (2017)

GIS Database
- DPaW tenure

### (i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

**Comments**

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

There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database).

There are no Public Drinking Water Source Areas (PDWSA) within the application area. Groundwater in the area is hypersaline (approximately 200,000 mg/L). The depth to groundwater is approximately 150 metres (Minjar Gold, 2017).

The proposed clearing is unlikely to cause deterioration in the quality of surface or underground water.

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

**Methodology**

Minjar Gold (2017)

GIS Database
- Hydrography, linear
- Public Drinking Water Source Area

### (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 to semi-arid, with a low average rainfall of approximately 250 – 300 millimetres per year (CALM, 2002). Given the annual average evaporation rate of 2,400 millimetres there is little surface water flow during normal seasonal rain events (Minjar Gold, 2017).

There are no permanent or ephemeral watercourses that have been identified within the application area. The proposed clearing is therefore 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**

CALM (2002)
Minjar Gold (2017)

GIS Database
- Hydrography, linear

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

**Comments**

The clearing permit application was advertised on 4 September 2017 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. One submission was received in relation to this application, raising concerns over the need for a substantial buffer zone of native vegetation adjacent to public roads. A vegetation buffer would provide visual screening from the Marvel Loch to Forrestania Road and Emu Fence Road to the proposed clearing. Potential impacts for visual amenity and dust on the public roads may be minimised by a condition restricting clearing in this buffer area.

There are no native title claims over the area under application (DPLH, 2017). 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, 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 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 (2017)

## 4. References


CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.

DPLH (2017) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 6 October 2017).

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.

Eco Logical Australia (2017) Marvel Loch Targeted Flora, Vegetation and Fauna Survey. Report prepared for Minjar Gold Pty Ltd by Eco Logical Australia, June 2017.

Government of Western Australia (2016) 2016 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2016. WA Department of Parks and Wildlife, 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.

Minjar Gold (2017) Application to Clear Native Vegetation (Purpose Permit) Marvel Loch Tailings Facility Stage 3 (TSF3) Southern Cross Operations. Minjar Gold Pty Ltd – SXO, August 2017.

## 5. Glossary

### Acronyms:

| | |
|---|---|
| **BoM** | 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 (now DWER) |
| **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.

***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.