

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 7616/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Norton Gold Fields Limited

1.3. Property details

Property: Mining Lease 16/48

Mining Lease 16/58 Mining Lease 16/86 Mining Lease 16/106 Mining Lease 16/150

Local Government Area: Shire of Coolgardie
Colloquial name: Carbine Mining Project

1.4. Application

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

150 Mechanical Removal Mineral production and associated activities

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 31 August 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:

460: Succulent steppe; bluebush with saltbush in depressions;

468: Medium woodland; salmon gum and goldfields blackbutt; and

555: Hummock grasslands, mallee steppe, red mallee over spinifex, Triodia scariosa (GIS Database).

The majority of the application area is mapped as Beard vegetation association 468 (GIS Database).

A flora and vegetation survey was conducted over the tenements that make up the Carbine Mining Area, including the application area, by Botanica Consulting during July 2016. The following vegetation associations were recorded within the broader survey area (a total area of approximately 2,776 hectares), grouped according to landform type and vegetation type (Botanica, 2016):

Clay-Loam Plains

Eucalypt Woodlands:

CLP-EW1: Low woodland of *Eucalyptus salmonophloia* over low scrub of *Acacia hemiteles/ Eremophila scoparia* and dwarf scrub of *Ptilotus obovatus* on clay-loam plain.

CLP-EW2: Forest of Eucalyptus ravida over open low scrub of Eremophila scoparia and low heath of Maireana oppositifolia/ Ptilotus obovatus on clay-loam plain.

CLP-EW3: Low woodland of *Eucalyptus salmonophloia/ E. clelandii/ E. salubris* over open low scrub of *Eremophila interstans* subsp. *interstans/ Senna artemisioides* subsp. *filifolia* and low scrub of *Eremophila scoparia/ Olearia muelleri* on clay-loam plain.

CLP-EW4: Low woodland of *Eucalyptus salmonophloia* over open low scrub of *Atriplex nummularia* subsp. *spatulata* and dwarf scrub of *Tecticornia disarticulata* on clay-loam plain.

CLP-EW5: Low woodland of *Eucalyptus ravida* over low scrub of *Atriplex nummularialEremophila scoparia* over dwarf scrub of *Atriplex vesicaria* on clay-loam plain.

CLP-EW6: Low woodland of *Eucalyptus clelandii* over very open shrub mallee of *E. celastroides* and dwarf scrub of *Tecticornia disarticulata* on clay-loam plain.

Hillslope

Eucalypt Woodlands:

HS-EW1: Low woodland Eucalyptus clelandii/ E. oleosa over open low scrub of Eremophila caperata and low heath of Cratystylis conocephala/ Eremophila pustulata on hillslope.

HS-EW2: Low woodland of *Eucalyptus clelandii* over open low scrub of *Atriplex nummularia* subsp. *spatulata* and dwarf scrub of *Atriplex vesicaria/ Maireana pentatropis* and *Olearia muelleri* on hillslope;

HS-EW3: Low woodland of *Eucalyptus clelandii* over scrub of *Acacia acuminata* and low scrub of *Acacia erinacea/ Atriplex vesicaria/Eremophila pustulata* on hillslope.

Rocky Hillslope

Mallee Woodlands and Shrublands:

RH-MWS1: Very open shrub mallee of *Eucalyptus griffithsii* over low scrub of *Dodonaea lobulata* and *Eremophila scoparia* over dwarf scrub of *Scaevola spinescens* on rocky hillslope.

Eucalypt Woodlands:

RH-EW1: Low woodland of *Eucalyptus clelandii* over low scrub of *Eremophila interstans* subsp. *virgata/Eremophila scoparia* on rocky hillslope.

Sand-Loam Plain

Casuarina Forests and Woodlands:

SLP-CFW1: Forest of Casuarina pauper over low woodland of Acacia hemiteles and dwarf scrub of Olearia muelleri/ Scaevola spinescens on sand-loam plain.

Eucalypt Woodlands:

SLP-EW1: Low woodland of *Eucalyptus salubris* over heath of *Eremophila scoparia* and dwarf scrub of *Olearia muelleri/ Sclerolaena diacantha* on sand-loam plain.

SLP-EW2: Low woodland of Eucalyptus clelandii/ E. transcontinentalis over low scrub of Acacia hemiteles/ Eremophila caperata and dwarf scrub of Eremophila parvifolia/ Olearia muelleri on sand-loam plain.

SLP-EW3: Low woodland of *Eucalyptus griffithsii* over low scrub of *Acacia acuminata/ Dodonaea lobulata/ Eremophila interstans* subsp. *virgata* and dwarf scrub of *Olearia muelleri/Ptilotus obovatus* on sand-loam plain;

Eucalypt Woodlands/ Mallee Woodlands and Shrublands:

SLP-EW/MWS1: Low woodland of *Eucalyptus clelandiil* Open tree mallee of *E. griffithsii/ E. oleosa* over low scrub of *Eremophila caperata* and dwarf scrub of *Scaevola spinescens/ Senna artemisioides* subsp *filifolia* on sand-loam plain.

SLP-EW/MWS2: Low woodland of *Eucalyptus clelandiil* Open tree mallee of *E. griffithsii* over scrub of *Melaleuca pauperiflora* and dwarf scrub of *Atriplex vesicaria* on sand-loam plain;

Mallee Woodlands and Shrublands:

SLP-MWS1: Open shrub mallee of *Eucalyptus oleosa* over low scrub of *Dodonaea viscosa/ Senna artemisioides* subsp. *filifolia* and dwarf scrub of *Ptilotus obovatus* on sand-loam plain.

SLP-MWS2: Open shrub mallee of *Eucalyptus griffithsii* over open low scrub of *Acacia acanthoclada/ A. merrallii* and dense hummock grass of *Triodia scariosa* on sand-loam plain.

The application area also includes some cleared areas of existing and historical mining disturbance (Botanica, 2016).

Clearing Description

Carbine Mining Project

Norton Gold Fields Limited proposes to clear up to 150 hectares of native vegetation within a boundary of approximately 459.8 hectares, for the purpose of developing the Porphyry West, Matt's Dam and Matt's Dam South minesites. The project is located approximately 50 kilometres northwest of Kalgoorlie, within the Shire of Coolgardie.

Vegetation Condition

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

То

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

Comment

The vegetation condition was derived from a vegetation survey conducted by Botanica Consulting (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 is not likely to be at variance to this Principle

The clearing permit application area is located within the Eastern Goldfields subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Coolgardie Bioregion (GIS Database).

The Eastern Goldfields subregion is characterised by gently undulating plains, with low hills and ridges and a series of salt lakes in the west, and a raised fault-block to the east. Calcareous soils are dominant on the plains. The vegetation of the subregion is dominated by Mallees, Acacia thickets and shrub-heaths on sandplains, and diverse *Eucalyptus* woodlands around salt lakes, on ranges, and in valleys (CALM, 2002).

The application area falls within the northern edge of the area known as the Great Western Woodlands, which represents the largest and most intact eucalypt woodland remaining in southern Australia and is one of the best examples of its type in the world (DEC, 2010). The Great Western Woodlands covers a total area of approximately 16 million hectares, and is recognised for its flora and fauna species richness and high number of endemic flora species (DEC, 2010). However, at approximately 460 hectares in size, the clearing permit application area represents less than 0.003 percent of the area covered by the Great Western Woodlands, and the proposed clearing of 150 hectares is unlikely to have any significant impact on the conservation values of the Great Western Woodlands.

A Level 1 flora and vegetation survey was conducted by Botanica Consulting (Botanica) over the application area and surrounding areas during July 2016 (Botanica, 2016). A total of 112 flora species, from 24 families and 47 genera were recorded within the survey area (Botanica, 2016).

No Threatened flora, Priority flora, Threatened Ecological Communities or Priority Ecological Communities have been recorded within the application area (GIS Database), and none were found during the flora and vegetation survey (Botanica, 2016).

Desktop surveys of available databases identified five Priority flora species and one Threatened flora species with the potential to occur within the survey area, based on known distributions (Botanica, 2016). Of these, four Priority flora species (one Priority 1, one Priority 2, and two Priority 3 species) were considered to be the most likely to occur within the application area, based on habitat preferences (Botanica, 2016). These species were specifically searched for during the flora survey, however none were found (Botanica, 2016).

The vegetation condition within the survey area was described as Good to Very Good on the Keighery scale with parts of the application area previously disturbed by historical mining activities and more recent mineral exploration activities (Botanica, 2016).

Four weed species were recorded during the flora survey: *Centaurea melitensis* (Maltese Cockspur), *Carrichtera annua* (Wards weed), *Dittrichia graveolens* (Stinkwort) and *Salvia verbenaca* (Wild Sage) (Botanica, 2016). None of these weeds are listed as a declared plant under the *Biosecurity and Agriculture Management Act 2007* (Botanica, 2016). Weeds have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The application area is unlikely to represent an area of higher biodiversity than surrounding areas, 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 Botanica (2016)

CALM (2002) DEC (2010)

GIS Database:

- IBRA Australia
- Pre-European Vegetation
- Threatened and Priority Flora
- Threatened Ecological Sites Buffered
- Threatened Fauna

(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

A fauna survey has not been conducted over the application area. Several fauna species (mostly birds) of conservation significance have the potential to occur within the application area, however most fauna species occurring in the region tend to be wide ranging (CALM, 2002).

Malleefowl (Leipoa ocellata) (Vulnerable) previously inhabited much of the Goldfields region, however their

range and abundance is now greatly reduced. Database searches recorded the Malleefowl as likely to occur within the area (Botanica, 2016), and Malleefowl have been previously recorded within approximately 10 kilometres of the application area. A targeted Malleefowl survey is recommended prior to clearing, and any Malleefowl mounds should be avoided. A fauna management condition may minimise potential impacts to Malleefowl from the proposed clearing.

The landforms and habitat types found within the application area are relatively common and widespread in the region (CALM, 2002; GIS Database). The vegetation proposed to be cleared is unlikely to represent significant habitat for fauna in a regional context.

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

Methodology

Botanica (2016) CALM (2002)

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, Priority flora or other flora species of conservation significance (Botanica, 2016).

The vegetation associations within the application area are common and widespread within the region (Botanica, 2016; 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 Botanica (2016)

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).

A flora and vegetation survey of the application area did not identify any TECs (Botanica, 2016).

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

Methodology Botanica (2016)

GIS Database:

- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities 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 application area falls within the Coolgardie Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 98% of the pre-European vegetation still exists in the IBRA Coolgardie Bioregion (Government of Western Australia, 2016). The application area is broadly mapped as Beard vegetation associations:

- 460: Succulent steppe; bluebush with saltbush in depressions;
- 468: Medium woodland; salmon gum and goldfields blackbutt; and
- 555: Hummock grasslands, mallee steppe; red mallee over spinifex, Triodia scariosa (GIS Database).

More than 98% 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).

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

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

Methodology 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 at variance to this Principle

There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). Several minor ephemeral creek 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 (CALM, 2002).

Based on the above, the proposed clearing is at variance to this Principle. Potential impacts to vegetation growing in association with a watercourse may be minimised by the implementation of a watercourse management condition.

Methodology CALM (2002)

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 soils of the application area are broadly mapped as soil types SV15 and BB5 (Northcote et al., 1960-68; GIS Database). The majority of the application areas are mapped as SV15.

These soil types are described as:

BB5: Rocky ranges and hills of greenstones - basic igneous rocks: chief soils seem to be shallow calcareous loamy soils and similar soils, with shallow brown and grey-brown calcareous earths below which weathered rock occurs at shallow depths; and

SV15: Salt lakes and their associated areas: common soils are gypseous and saline loams together with gypseous and saline soils on the lake beds (Northcote et al., 1960-68).

The majority of the application area is relatively flat, there are no permanent watercourses or waterbodies in the application area and the region receives a relatively low annual rainfall (GIS Database). Although the removal of vegetation cover may result in localised erosion, the proposed clearing of up to 150 hectares of native vegetation within a boundary of approximately 460 hectares, 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 Northcote et al (1960-68)

GIS Database:

- Hydrography, Lakes
- Hydrography, linear
- Soils, Statewide
- Topographical 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 is not likely to be at variance to this Principle

There are no conservation areas within the application area. The nearest DBCA (formerly DPaW) managed lands are the former Credo Pastoral Lease which is located approximately five kilometres north of the application area, at its nearest point; and the Clear and Muddy Lakes Nature Reserve which is located approximately ten kilometres northwest of the application area, at its nearest point (GIS Database). The

proposed clearing is unlikely to impact on the environmental values of any conservation area.

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

Methodology

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 Pro

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 seasonal 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 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:

- Hydrography, Lakes
- 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 climate of the region is semi-arid, with a low average rainfall of approximately 200-300 millimetres per year (CALM, 2002). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2002).

There are no permanent water courses or waterbodies within the application area (GIS Database). Several seasonal drainage lines pass through the application areas 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

CALM (2002)

GIS Database:

- Hydrographic Catchments Catchments
- Hydrography, linear

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

Comments

The clearing permit application was advertised on 24 July 2017 by the Department of Mines, Industry Regulation and Safety (DMIRS) inviting submissions from the public. One submission was received in relation to this application, raising concerns over potential impacts to Aboriginal Sites of Significance.

There are no registered Aboriginal Sites of Significance located 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.

There is one native title claim (WC2017/001) over the area under application (DPLH, 2017). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenements have 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*.

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

- Botanica (2016) Level 1 Flora and Vegetation Survey of the Carbine Mining Area. Report prepared for Norton Gold Fields Limited, by Botanica Consulting, July 2016.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DEC (2010) A Biodiversity and Cultural Conservation Strategy for the Great Western Woodlands Strategy. Department of Environment and Conservation, Western Australia.
- DPLH (2017) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage, Western Australia. http://maps.daa.wa.gov.au/AHIS/ (Accessed 28 August 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.
- Northcote, K. H. with Beckmann G. G., Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): Atlas of Australian Soils, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press, Melbourne.

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
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.