

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6832/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name:

Big Bell Gold Operations Pty Ltd

1.3. Property details

Property:

Mining Lease 51/6 Mining Lease 51/12 Mining Lease 51/31 Mining Lease 51/33 Mining Lease 51/75 Mining Lease 51/96 Mining Lease 51/203 Mining Lease 51/321 Mining Lease 51/486 Mining Lease 51/496 Mining Lease 51/523 Mining Lease 51/572 Mining Lease 51/575 Mining Lease 51/581 Mining Lease 51/652 Mining Lease 51/793 Mining Lease 51/794 Miscellaneous Licence 51/18

Shire of Meekatharra

Local Government Area: Colloquial name:

Lake Annean Exploration

1.4. Application

Clearing Area (ha)

No. Trees

Method of Clearing Mechanical Removal For the purpose of: Mineral Exploration

1.5. Decision on application

Decision on Permit Application:

oision Date:

Grant

Decision Date:

30 December 2015

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 and are useful to look at vegetation in a regional context. The following four vegetation associations have been mapped within the application area (GIS Database):

- 18: Low woodland; mulga (Acacia aneura);
- 39: Shrublands; mulga scrub;
- 125: Bare areas; salt lakes; and
- 1128: Mosaic: Succulent steppe with open scrub; scattered *Acacia sclerosperma* & bowgada over saltbush & bluebush/Succulent steppe; samphire.

A level 1 flora survey of the application area was undertaken by MWH between 14 and 17 July 2015. The following vegetation associations were recorded within the application area (MWH, 2015):

VA01: Scattered shrubs of *Maireana pyramidata* and *Cratystylis subspinescens* over low chenopod shrubland of *Maireana tomentosa, Maireana triptera* and *Dissocarpus paradoxus* over scattered low tussock grassland of *Aristida contorta* on red/brown sandy, clay loam.

VA02a: Scattered tall shrubs of *Acacia pteraneura* and *Acacia tetragonophylla* over scattered mid shrubs of *Senna* sp. Meekatharra (E. Bailey 1-26) and *Senna artemisioides* subsp. *helmsii* over open low shrubland of *Maireana triptera, Eremophila? jucunda* subsp. *jucunda* and *Ptilotus obovatus* over very open low tussock

grassland of Aristida contorta on red/brown loamy sand with stony surface.

VA02b: Scattered tall shrubs of *Acacia pteraneura* over open low chenopod shrubland of *Maireana pyramidata, Maireana triptera* and *Rhagodia eremaea* over very open low tussock grassland of *Aristida contorta* on red/brown stony, loamy sand with stony surface.

VA03: Mosaic of mid to tall samphire shrubland dominated by Tecticornia species on moist clay.

VA04: Open tall shrubland to scattered tall shrubs of *Acacia fuscaneura* and occasional *Acacia synchronicia* over open mid shrubland of *Eremophila latrobei* subsp. *latrobei*, *Senna* sp. Meekatharra (E. Bailey 1-26) and *Eremophila* spp. over scattered low shrubs of *Ptilotus obovatus* and *Solanum lasiophyllum* over open low chenopod shrubland of *Maireana triptera* and *Sclerolaena* spp. over very open low tussock grassland of *Aristida contorta* and *Enneapogon caerulescens* on skeletal red/brown loamy sand with ironstone outcropping.

VA05: Open tall shrubland to isolated patches of tall shrubs of *Hakea preissii* and *Acacia sclerosperma* subsp. *sclerosperma* over open mid shrubland to scattered mid shrubs of *Dodonaea viscosa* subsp. *angustissima*, *Maireana pyramidata* and *Cratystylis subspinescens* over scattered mid chenopod shrubs of *Maireana triptera* and *Atriplex vesicaria* over scattered low tussock grassland of *Aristida contorta* on red/orange loamy sand.

VA06: Scattered mid shrubs of *Maireana pyramidata* and *Eremophila longifolia* over low chenopod shrubland to low open chenopod shrubland of *Salsola australis*, *Sclerolaena diacantha* and *Dissocarpus paradoxus* over scattered low herbs of *Swainsona paradoxa* on red/orange fine clayey loam.

VA07a: Scattered low trees of *Acacia fuscaneura* over open tall shrubland to isolated patches of tall shrubs of *Acacia sclerosperma* subsp. *sclerosperma* and *Hakea preissii* over open mid shrubland of *Eremophila* sp. B, *Senna artemisioides* subsp. *filifolia* and *Senna artemisioides* subsp. *helmsii* over scattered low shrubs of *Ptilotus obovatus* on orange/red clayey, sand.

VA07b: Scattered low trees of *Acacia pteraneura* over scattered tall shrubs of *Hakea preissii* over mid shrubland of *Senna* sp. Meekatharra (E. Bailey 1-26), *Senna* sp. Billabong (J.D. Alonzo 721) and *Eremophila* sp. A on red/orange loamy sand.

VA07c: Open tall shrubland of *Acacia fuscaneura* over open mid shrubland of *Eremophila* sp. A over scattered mid chenopod shrubs of *Salsola australis*, *Maireana pyramidata* and *Maireana tomentosa* over scattered mid tussock grasses of *Eragrostis* sp. on red loamy sand.

VA08: Isolated patches of mid shrubs of *Acacia sclerosperma subsp. sclerosperma* over scattered low shrubs to open low shrubland of *Frankenia laxiflora*, *Sclerolaena fimbriolata* and *Enchylaena tomentosa* var. *tomentosa* over open low tussock grassland of *Eragrostis eriopoda* and *Enneapogon caerulescens* on orange/red loamy sand with gypsum outcropping.

VA09: Open tall shrubland of *Melaleuca stereophloia* over open mid samphire shrubland of *Tecticornia*? sp. Dennys Crossing (K.A. Shepherd & J. English KS 552) over scattered low shrubs of *Frankenia laxiflora* on red/orange clayey sand.

VA10: Scattered mid shrubs of *Lawrencia helmsii* and *Maireana pyramidata* over low chenopod shrubland of *Atriplex vesicaria* and *Maireana amoena* on red/brown clayey sand.

VA11: Open tall shrubland of Acacia fuscaneura over scattered mid shrubs to open mid shrubland of Eremophila macmillaniana and Eremophila latrobei subsp. latrobei over open low shrubland of Ptilotus obovatus, Solanum lasiophyllum and Maireana pyramidata over very open low tussock grassland of Aristida contorta and Enneapogon caerulescens on red/orange/white skeletal sandy loam with quartz outcropping.

Clearing Description

Lake Annean Exploration.

Big Bell Gold Operations Pty Ltd proposes to clear up to two hectares of native vegetation within a boundary of approximately 1,573.36 hectares for the purposes of mineral exploration. The project is located approximately 33.5 kilometres south-west of Meekatharra within the Shire of Meekatharra.

Vegetation Condition

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

to

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

Comment

The vegetation condition was derived from a report prepared by MWH (2015). Rainfall in March provided suitable conditions for the emergence of ephemeral species and resulted in a number of taxa displaying material to allow suitable identification.

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

A flora and vegetation survey of the application area identified 14 different vegetation associations (MWH, 2015). The vegetation associations within the application area are considered to be representative of the dominant vegetation types throughout the region (MWH, 2015). The vegetation condition ranged from excellent to completely degraded with the majority of the area in very good to good condition (MWH, 2015). There are existing disturbances in the area from previous mining activities and cattle grazing.

None of the vegetation associations were identified as being a Threatened Ecological Community (GIS Database; MWH, 2015). A small section in the north of the application area is within the buffer of the Priority Ecological Community (PEC) 'Polelle calcrete groundwater assemblage type on Murchison palaeodrainage on Polelle Station' (GIS Database). Given this is a subterranean PEC, the proposed clearing will not be impacting on this community.

The flora survey of the application area by MWH (2015) recorded a total of 105 flora taxa from 28 families and 50 genera. The floral diversity recorded is consistent with other salt lake landforms in the Murchison region (MWH, 2015). No species of Threatened flora were recorded within the application area (GIS Database; MWH, 2015). The flora survey did not identify any species of Priority flora, however, the Priority 3 species *Tecticomia cymbiformis* is known at Lake Annean and may be present within the application area (MWH, 2015). The proposed clearing of two hectares within the application area is unlikely to have a significant impact on habitat for this species. Three introduced species, *Acetosa vesicaria, Cenchrus ciliaris* and *Citrullus lanatus* were recorded within the application area (MWH, 2015). 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.

A level 1 fauna survey was conducted over the application area and identified five broad fauna habitats (MWH, 2015). The diversity of habitats are similar to those of other salt lake habitats throughout the Murchison region (MWH, 2015). Lake Annean supports breeding habitat for a high number of waterbirds during periods of inundation (Department of the Environment, 2010). During times of flooding there is the potential for the application area to contain a high level of faunal diversity. The proposed clearing of two hectares is not expected to have a significant impact on the biological diversity of Lake Annean.

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

Methodology

Department of the Environment (2010)

MWH (2015)

GIS Database:

- 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

A level 1 fauna survey was conducted by MWH (2015) over the application area. The survey identified the following five broad fauna habitats within the application area:

- Dunefields
- Stony plains
- Samphire
- Ironstone hills
- Lake playa

Both the stony plains and ironstone hills habitats have low burrowing potential and limited shelter for fauna species (MWH, 2015). The dunefields habitat contained deep red sands suitable for burrowing species and also contained denser areas of vegetation suitable for supporting an abundance of small birds, mammals and reptiles (MWH, 2015). The lake playa habitat consists of unvegetated lake bed. This habitat is of limited value to fauna for most periods, however, during periods of inundation it would be important for migratory and marine birds (MWH, 2015). Similarly, the samphire habitat would provide foraging and breeding habitat for bird species when the lake is in flood.

Lake Annean is known to support a number of protected migratory waterbirds. In particular it is a major breeding area for Gull-billed Tern (*Gelochelidon nilotica*) and Whiskered Tern (*Chilidonias hybrida*) (Department of the Environment, 2010). The samphire and lake playa habitats provide foraging and breeding habitat for nesting bird species when the lake is inundated. As the lake playa contains no vegetation there will be no clearing in this habitat. There is 475.29 hectares of samphire habitat mapped within the application area (MWH, 2015). The clearing of two hectares is not likely to have a significant impact on breeding habitat for migratory birds.

The Priority 1 species *Lerista eupoda* (Meekatharra Slider) was recorded at two locations within the application area (MWH, 2015). The Meekatharra Slider is a species of burrowing skink which was observed within the dunefields habitat. There is 161.61 hectares of dunefields habitat mapped within the application area (MWH, 2015). This species is restricted to the Murchison region in an area between Meekatharra and Cue (Department of Parks and Wildlife, 2015). It is thought that its preferred habitat is open mulga on loamy soils but it has also been recorded in rocky areas on the ridge line of Weld Range (Ecologia, 2009). The proposed clearing of two hectares is not likely to have a significant impact on this species.

When Lake Annean is inundated the application area has the potential to be significant for native fauna species. The application area also supports the restricted Meekatharra Slider. Whilst the application area comprises part of significant fauna habitat at Lake Annean, the proposed clearing of two hectares for mineral

exploration is not likely to have a significant impact on fauna species in the area.

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

Methodology Departm

Department of Parks and Wildlife (2015)
Department of the Environment (2010)

Ecologia (2009) MWH (2015)

(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 records of any Threatened flora species within the application area (GIS Database). The flora survey of the application area did not identify any species of Threatened flora (MWH, 2015).

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

Methodology

MWH (2015)

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 any Threatened Ecological Communities (TECs) within the application area (GIS Database). The vegetation survey of the application area did not identify any vegetation communities considered to be a TEC within the application area (MWH, 2015).

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

Methodology

MWH (2015)

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 application lies within the Murchison Interim Biogeographical Regionalisation of Australia (IBRA) bioregion in which approximately 99.73% of the pre-European vegetation remains (Government of Western Australia, 2014; GIS Database).

The vegetation of the application area has been broadly mapped as Beard vegetation associations 18, 39, 125 and 1128 (GIS Database). These vegetation associations have not been extensively cleared as over 90% remains at both a State and bioregional level (Government of Western Australia, 2014). There has not been extensive clearing in the local region and the vegetation within the application area is not a remnant nor does it form part of any remnants within the local area (GIS Database).

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

Methodology

Government of Western Australia (2014)

GIS Database:

- IBRA WA (Regions Sub Regions)
- Imagery
- Pre-European Vegetation

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

Comments

Proposal is at variance to this Principle

There are no permanent waterbodies within the application area (GIS Database). The application area is situated over part of the non-perennial Lake Annean (GIS Database). Lake Annean is dry a majority of the time and fills every five to ten years. Lake Annean is listed in the Directory of Important Wetlands in Australia due to it being an important breeding area for waterbirds and a good example of a seasonal saline lake and marsh system (Department of the Environment, 2010). The proposed clearing of two hectares is not likely to have a significant impact on the hydrological or ecological values of Lake Annean.

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

Methodology Department of the Environment (2010)

GIS Database:

- Hydrography, linear

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

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

The application area has been mapped as being comprised of the Austin, Carnegie and Gabanintha land systems (GIS Database). The large majority of the application area is covered by the Carnegie land system (GIS Database).

The majority of the Austin land system is generally not susceptible erosion, however the drainage tracts unit of this land system may be susceptible to erosion if perennial vegetation is degraded (Curry et al., 1994). There is only a small area of lake bed within the application area that is associated with this land system (GIS Database).

The majority of the Carnegie land system has not been noted as normally being susceptible to accelerated erosion (Curry et al., 1994). The alluvial plains unit of this land system has been identified as having a mild to moderate susceptibility to accelerated erosion (Curry et al., 1994). Only a small percentage of the Carnegie land system within the application area consists of this unit (GIS Database).

The Gabanintha land system is also generally not susceptible to erosion (Curry et al., 1994). The creeks and drainage tracts unit of this land system is mildly susceptible to water erosion where degraded (Curry et al., 1994). A small area of the lake bank within the application area is associated with this land system (GIS Database).

Given the small amount of clearing and that only a small proportion of the application area is likely to susceptible to erosion if cleared, the proposed clearing is not likely to cause appreciable land degradation.

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

Methodology

Curry et al. (1994)

GIS Database:
- Landsystem Rangelands

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

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

The application area does not lie within any conservation areas or Department of Parks and Wildlife managed lands (GIS Database). The nearest conservation area is the ex Lakeside lease which is located approximately 84 kilometres south-west of the application area (GIS Database). The proposed clearing will not impact on the environmental values of this 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 Propos

Proposal is not likely to be at variance to this Principle

There are no permanent watercourses within the application area (GIS Database). The non-perennial Lake Annean is located within the application area (GIS Database). This is a saline lake and the clearing of two hectares within the application area is unlikely to impact on the water quality in Lake Annean.

The application area is not located within a Public Drinking Water Source Area (GIS Database). The groundwater in the application area is considered to be brackish to saline ranging from 3,000 to 7,000 milligrams/litre total dissolved solids (GIS Database). The proposed clearing is not expected to have any impact on the quality of groundwater in the local area.

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

Methodology

GIS Database:

- Groundwater Salinity, Satewide
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSAs)

(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

With an average annual rainfall of 237.2 millimetres and an average annual evaporation rate of 2,800 millimetres there is likely to be little surface flow during normal seasonal rains (BoM, 2015; GIS Database). Given the likelihood of little surface flow, the proposed clearing is not likely to cause or increase the incidence or intensity of flooding.

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

Methodology BoM (2015)

GIS Database:

- Evaporation Isopleths

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

Comments

There is one Native Title Claim over the area under application (WC2004/010) (Department of Aboriginal Affairs, 2015). 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 is one registered Aboriginal Site of Significance within the application area (GIS Database). 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 16 November 2014 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

Methodology De

Department of Aboriginal Affairs (2015)

GIS Database:

- Aboriginal Sites Register System

4. References

BoM (2015) Bureau of Meteorology Website - Climate statistics for Australian locations, Meekatharra Airport. Available online at: http://www.bom.gov.au/climate/averages/tables/cw_007405.shtml Accessed on 22 December 2015.

Curry, P.J., Payne, A.L., Leighton, K.A., Hennig, P. and Blood, D.A. (1994) Technical Bulletin - An Inventory and Condition Survey of the Murchison River Catchment and Surrounds, Western Australia, No. 84. Department of Agriculture, Government of Western Australia, Perth, Western Australia.

Department of Aboriginal Affairs (2015) Aboriginal Heritage Inquiry System. Accessed on 22 December 2015.

Department of the Environment (2010) Directory of Important Wetlands in Australia - Information Sheet, Anneen Lake.

Accessed online at http://www.environment.gov.au/cgi-bin/wetlands/report.pl

Department of Parks and Wildlife (2015) NatureMap Department of Parks and Wildlife, accessed on 22 December 2015 http://naturemap.dec.wa.gov.au

Ecologia (2009) Weld Range Vertebrate Fauna Assessment. Unpublished report prepared for Sinosteel Midwest Corporation Pty Ltd, dated 26 November 2009.

Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. 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.

MWH (2015) Lake Annean Flora and Fauna Assessment. Unpublished report prepared for Metals X Limited, dated September 2015.

5. Glossary

Acronyms:

BoMBureau of Meteorology, Australian GovernmentDAADepartment of Aboriginal Affairs, Western AustraliaDAFWADepartment of Agriculture and Food, Western Australia

DEC Department of Environment and Conservation, Western Australia (now DPaW and DER)

DER Department of Environment Regulation, Western Australia
DMP Department of Mines and Petroleum, Western Australia

DRF Declared Rare Flora

DotE Department of the Environment, Australian Government

DoW Department of Water, Western Australia

DPaW Department of Parks and Wildlife, Western Australia

DSEWPaC Department of Sustainability, Environment, Water, Population and Communities (now DotE)

EPA Environmental Protection Authority, Western Australia
EP Act Environmental Protection Act 1986, Western Australia

EPBC Act Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)

GIS Geographical Information System
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.