

# **Clearing Permit Decision Report**

1. Application	on details						
1.1. Permit application details							
Permit application	on No.:	8122/1					
Permit type:		Purpose Permit					
1.2. Proponent details							
Proponent's nam	ne:	Dampier Salt Limited					
1.3. Propert	ty details						
Property:		Evaporites (Lake MacLeod) Agreement Act 1967, Mineral Lease 245SA (AML 70/245)					
Local Governme	nt Area:	Shire of Carnarvon					
Colloquial name	:	Lake MacLeod Project					
1.4. Applica	ition		For the manage of				
1 84	a) NO. I	Mechanical Removal	For the purpose of: A communications tower and associated access track				
1.61 1.5 Decisio	n on onnlight						
Decision on Perr	n on application:	Grant					
Decision Date:		30 August 2018					
2. Site Inform	mation						
2.1. Existing	g environmen	t and information					
2.1.1. Descrip	tion of the nati	ve vegetation under application					
Vegetation Desc	ription The ve	egetation of the application area is broa	adly mapped as the following Beard vegetation association:				
	•	• 95: Hummock grasslands, shrub steppe; acacia and grevillea over Triodia basedowii (GIS Database).					
A		ora and vegetation survey was conducted over the application area by Biota on 29 May 2018. The following etation association was recorded within the application area (Biota, 2018):					
	•	<ul> <li>D1: AscAteTe - Acacia sclerosperi hummock grassland.</li> </ul>	na, Acacia tetragonophylla shrubland over Triodia epactia open				
Clearing Descrip	tion Lake MacLeod Project. Dampier Salt Limited proposes to clear up to 1.84 hectares of native vegetation within a boundary of approximately 1.84 hectares, for the purpose of a communications tower and associated access track. The project is located approximately 55 kilometres north of Carnarvon, within the Shire of Carnarvon.						
Vegetation Condition Exce 1994		llent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, ).					
Comment	The ve	The vegetation condition was derived from a vegetation survey conducted by Biota (2018).					
	The ap the thr survey	The application area received slightly below average rainfall (19.6 millimetres compared to 26.3 millimetres) in the three months prior to the field survey (March to May 2018). The relatively dry conditions at the time of the survey may have resulted in a lower number of annual and cryptic perennial flora species being collected.					
	The pi MacLe square	roposed clearing is for installing a com eod project in association with Telstra ( e metres and the access track will be 1	munications tower and associated access tracks at the Lake Corporation Limited. The communications tower pad area will be 100 0 metres wide and 900 metres in length.				
3. Assessm	ent of applica	tion against Clearing Princip	les				
(a) Native ve	egetation sho	uld not be cleared if it compr	ises a high level of biological diversity.				
Commente	Dronocal in m	ot likely to be at variance to t	his Drincinla				
Comments	The clearing per Regionalisation	learing permit application area is located within the Wooramel subregion of the Interim Biogeographic nalisation for Australia (IBRA) Carnarvon Bioregion (CALM 2002; GIS Database).					
	A reconnaissand within the applic <i>tetragonophylla</i> the application a	onnaissance flora and vegetation survey undertaken by Biota (2018) identified one vegetation association the application area. This vegetation association is described as <i>Acacia sclerosperma, Acacia</i> <i>jonophylla</i> shrubland over <i>Triodia epactia</i> open hummock grassland. This vegetation association within oplication area is common and widespread within the Wooramel subregion and was not identified as being Page 1					

a Threatened or Priority Ecological Community (Biota, 2018).

A desktop survey identified six Priority flora species that may potentially occur within the application area. A non-systematic targeted search for these conservation significant flora species was conducted via foot traverses across the entire application area during the field survey. The flora and vegetation survey undertaken over the application area recorded a total of 16 flora species from 10 families and 13 genera (Biota, 2018). None of these flora species were Threatened or Priority Flora (Biota, 2018). The number of species recorded in the field survey is within the range expected for a survey area of 1.84 hectares (Biota, 2018).

No weed species were recorded during the flora and vegetation survey (Biota, 2018). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. This can in turn lead to greater rates of infestation and further loss of biodiversity if the area is subject to repeated fires. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

One fauna habitat type was identified within the application area and broadly described as *Acacia* shrubland over *Triodia* hummock grassland on heavy sands and occasional calcareous loams. The fauna survey involved foot traverses over the application area and recording fauna species from secondary evidence (e.g. tracks, scats and burrows). The fauna survey only recorded secondary signs of three introduced species; goats (*Capra hircus*), rabbits (*Oryctolagus cuniculus*) and dogs (*Canis familiaris*). There were no signs of native fauna species, including conservation significant species within the application area.

One invertebrate species was also recorded and identified as a camaenid land snail (*Rhagada torulus*). This species is not considered to be a short-range endemic (SRE) taxon.

The species, vegetation type and fauna habitat recorded during the field survey are considered to be typical of the local region, and suggests that the application area does not contain a particularly high level of biological diversity (Biota, 2018).

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

Methodology Biota (2018) CALM (2002)

GIS Database:

- IBRA Australia
- Pre-European Vegetation
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers
- 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

One fauna habitat was identified within the application area and is described as being comprised of a low dune with a sandy substrate supporting *Acacia sclerosperma, Acacia tetragonophylla* shrubland and *Triodia epactia* open hummock grasslands (Biota, 2018).

A low intensity Level 1 fauna survey was conducted over the application area, which consisted of a desktop study and basic ground truthing. Foot traverses were undertaken over the application area to record evidence of conservation significant fauna, either through opportunistic sightings, calls and secondary evidence (e.g. scats, tracks and diggings).

The desktop review identified the following conservation significant fauna species as potentially occurring within the application area;

- Grey Falcon (Falco hypoleucos) Vulnerable
- Peregrine Falcon (Falco peregrinus) Migratory
- Rainbow Bee-eater (Merops ornatus) Migratory
- Gnaraloo mulch-slider (Lerista haroldi) Priority 1

The fauna survey did not find any evidence of the abovementioned species of conservation significance (Biota, 2018). The avian species are transient, and may utilise the application area as foraging ground for part of the year. However, it is unlikely that the application area is a significant habitat for any of these species (Biota, 2018).

The Gnaraloo mulch-slider is considered to be a data deficient species, and the specific habitat requirements are unknown (DBCA, 2018). *Lerista* are generally known as terrestrial burrowers or sand-swimmers that inhabit leaf litter and sand substrates. The seven specimens of the Gnaraloo mulch-slider at the WA Museum were

collected from coastal dunes with associated vegetation that is consistent with the habitat type identified within the application area (DBCA, 2018). The survey did not find any evidence of the Gnaraloo mulch-slider. The Level 1 survey did not use methods known to detect small sand-swimming lizards (DBCA, 2018). However, previous observations of the Gnaraloo mulch-slider were made within the vicinity of the application area by McKenzie et al. (2000) as referenced in Biota (2018) during a herpetofauna survey of the southern Carnarvon Basin.

The Gnaraloo mulch-slider is a small sand-swimming lizard that will quickly move away from disturbance. Given that the fauna habitat type is common throughout the local area, the proposed clearing of 1.84 hectares is unlikely to impact this species. Even if injury or mortality of individuals does occur, it is unlikely that the proposed clearing will impact the Gnaraloo mulch-slider at a local or regional level (DBCA, 2018).

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

Methodology Biota (2018) DBCA (2018)

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). Flora surveys of the application area did not record any species of Threatened flora (Biota, 2018).

The vegetation type present within the application area is considered to be representative of the dune habitat in this region, and is relatively widespread in the Lake MacLeod locality (Biota, 2018; GIS Database). 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 Biota (2018)

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 (Biota, 2018).

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

Methodology Biota (2018)

GIS Database:

- Threatened and Priority Ecological Communities Boundaries

- Threatened and Priority Ecological Communities Buffers

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

## Comments Proposal is not at variance to this Principle

The application area falls within the Carnarvon Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Carnarvon Bioregion (Government of Western Australia, 2018). The application area is broadly mapped as Beard vegetation association 95: Hummock grasslands, shrub steppe; *acacia* and *grevillea* over *Triodia basedowii* (GIS Database). Approximately 99% of the pre-European extent of this vegetation association

remains uncleared at both the state and bioregional level (Government of Western Australia, 2018).

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

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA managed lands	
IBRA Bioregion – Carnarvon	8,382,890	8,360,801	~99	Least Concern	12.21	
Beard vegetation associations – WA						
95	1,224,626	1,223,593	~99	Least Concern	4.11	
Beard vegetation associations – Carnarvon Bioregion						
95	390,084	389,947	~99	Least Concern	1.22	

\* Government of Western Australia (2018)

\*\* Department of Natural Resources and Environment (2002)

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

- Methodology Department of Natural Resources and Environment (2002) Government of Western Australia (2018)
  - GIS Database:
  - IBRA Australia
  - Pre-European Vegetation

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

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

There are no watercourses or wetlands within the area proposed to clear (Biota, 2018; GIS Database). However, the application area is located within 220 metres of the western shore of Lake MacLeod, a non-perennial salt lake (GIS Database).

Lake MacLeod covers an area of approximately 188,000 hectares (GIS Database) of which permanent water covers approximately 6,000 hectares (Ellison and Simmonds, 2003). This area of permanent water is located in the north western area of the lake and is fed by a subterranean connection to the ocean (DEC, 2009). It is highly significant as it supports the world's largest inland community of mangroves and associated fauna (Biota, 2018; Ellison and Simmonds, 2003). Lake MacLeod is also a major migration stopover for migratory birds and in particular, the lake has supported significant populations of Curlew Sandpiper, Banded Stilt, Rednecked Avocet, Red-capped Plover, Red-necked Stint and Red Knot (DEC, 2009). Over 111,600 shorebirds have been counted on the broad mudflat and nearby marshes. This ranks the site national sixth and third in Western Australia for number of shorebirds (DEC, 2009). Lake MacLeod is listed on the Register of National Estate and is also recognised by the Directory of Important Wetlands in Australia (Biota, 2018; GIS Database). The proposed clearing is towards the southern portion of the lake and will not impact on the permanent water ponds or mangrove areas. The application area is also not likely to provide significant habitat or breeding grounds for any migratory birds that would utilise the lake. As the lake covers approximately 188,000 hectares, the proposed clearing of 1.48 hectares represents a very small portion of the total extent of vegetation surrounding the lake. Given this, the proposed clearing is not likely to impact the natural lake processes including periodic flooding.

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

Methodology	Biota (2018)
	DEC (2009)
	Ellison and Simmonds (2003)

GIS Database:

- DoW Surface Water Bodies
- 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 may be at variance to this Principle The application area lies within the Cardabia land system (GIS Database). This land system has been mapped and described in technical bulletins produced by the former Department of Agriculture (now the Department of Primary Industries and Regional Development). The Cardabia land system is described as undulating sandy plains with linear dunes, minor limestone plains and low rises, supporting mainly soft spinifex hummock grasslands with scattered acacias and other shrubs. The longitudinal dunes of this land system is highly susceptible to wind erosion when denuded of adequate cover, and the other areas of the land system may also be slightly susceptible to erosion if vegetation cover is removed (Payne et al., 1987). Potential impacts of erosion may be minimised by the implementation of a staged clearing condition. Based on the above, the proposed clearing may be at variance to this Principle. Methodology Payne et al. (1987) GIS Database: - Landsystem Rangelands 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 DBCA (formerly DPaW) managed land is the former Boologooro Pastoral Lease which is located approximately 21.4 kilometres east of the application area (GIS Database). The proposed clearing is unlikely to impact on the environmental values of any conservation area. The application area is located adjacent to Lake MacLeod. Lake MacLeod is listed as a Wetland of National Importance in the Directory of Important Wetlands in Australia. It is also listed on the Register of the National Estate for its natural values, and identified as meeting four of the possible nine Ramsar Criteria for listing as a Wetland of International Importance (Biota, 2018; GIS Database). The most significant part of the lake is the permanent pools and inland mangroves located over 40 kilometres north of the application area (DEC 2009; GIS Database). Given the scale of the proposed clearing (1.84 hectares) in relation to the size of Lake MacLeod (approximately 188,000 hectares; GIS Database), the proposed clearing is not expected to impact on environmental values such as migratory bird habitat or the unique mangrove system. Based on the above, the proposed clearing is not likely to be at variance to this Principle. Methodology DEC (2009) GIS Database: - DBCA Interested Lands and Waters - DoW Surface Water Bodies - Register of National Estate Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration (i) in the quality of surface or underground water. Comments Proposal is not likely to be at variance to this Principle There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no permanent watercourses within the area proposed to clear (GIS Database). Water flows into Lake MacLeod in two ways. Firstly, marine saline water passes underground through the coastal limestone, emerging under hydrostatic pressure out of sinkholes in the central western part of the lakebed. Secondly, surface freshwater enters Lake MacLeod from the far northeast area via Lyndon River and Cardabia Creek; from the eastern side via Minilya River; and from the far southeast area via tributaries of the Gascoyne River. Direct rainfall may also contribute significantly to the water supply during large rainfall events. As the application area is on the western side of the lake, the proposed clearing is not likely to impact these freshwater sources into the lake system. Furthermore, the permanent water pools within Lake MacLeod have similar properties to sea water with total dissolved solids of >35,000 (DEC, 2009; GIS Database). The proposed clearing of 1.84 hectares is unlikely to increase salinity or cause deterioration in the quality of surface water or underground water.

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

Methodology Biota, 2018 DEC, 2009

GIS Database:

- DoW Surface Water Bodies
- Groundwater Salinity, Satewide
- 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 223 millimetres per year and an average annual evaporation rate of approximately 2,600 millimetres (BOM, 2018). There are no permanent water courses or waterbodies within the application area (GIS Database). Whilst large rainfall events may cause temporary localised flooding, the proposed clearing of 1.84 hectares is unlikely to lead to an increase in the incidence or intensity of natural flooding events.

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

Methodology BOM (2018)

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 23 July 2018 by the Department of Mines, Industry Regulation and Safety (DMIRS), inviting submissions from the public. No submissions were received in relation to this application.

There is one native title claim (WC1999/028) over the area under application (DPLH, 2018). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

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

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

#### Methodology DPLH (2018)

#### 4. References

Biota (2018) Lake MacLeod Native Vegetation Clearing Permit Report. Report for Dampier Salt Limited prepared by Biota Environmental Sciences Pty Ltd. July 2018.

BOM (2018) Climate Statistics for Australian Locations - Carnarvon Airport.

http://www.bom.gov.au/climate/averages/tables/cw\_006011.shtml (Accessed 25 July 2018).

- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DBCA (2018) Advice received in relation to Clearing Permit Application CPS 8122/1. Species and Communities Branch, Department of Biodiversity, Conservation and Attractions, Western Australia, August 2018.
- DEC (2009) Resource Condition Report for a Significant Western Australian Wetland: Lake MacLeod System. Department of Environment and Conservation, Perth, Western Australia.
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- DPLH (2018) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. <u>http://maps.daa.wa.gov.au/AHIS/</u> (Accessed 25 July 2018).
- Ellison, J. C., & Simmonds, S. (2003) Structure and productivity of inland mangrove stands at Lake MacLeod, Western Australia. Journal of the Royal Society of Western Australia, 86:25-30.

Government of Western Australia (2018) 2017 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2017. WA Department of Biodiversity, Conservation and Attractions. https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Payne, A.L., Spencer, G.F., and Curry, P.J. (1987) An Inventory and Condition Survey of rangelands in the Carnarvon Basin, Western Australia. Department of Agriculture, Western Australia.

## 5. Glossary

### Acronyms:

ВоМ	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
DWER	Department of Water and Environmental Regulation, Western Australia
EPA	Environmental Protection Authority, Western Australia
EP Act	Environmental Protection Act 1986, Western Australia
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
TEC	Threatened Ecological Community

## **Definitions:**

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

### T Threatened species:

Published as Specially Protected under the *Wildlife Conservation Act 1950,* listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

*Threatened fauna* is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the *Wildlife Conservation Act 1950*.

*Threatened flora* is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the *Wildlife Conservation Act* 1950.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

## CR Critically endangered species

Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

#### EN Endangered species

Threatened species considered to be facing a very high risk of extinction in the wild. Published as

Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

## VU Vulnerable species

Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

### EX Presumed extinct species

Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.

#### IA Migratory birds protected under an international agreement

Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.

### CD Conservation dependent fauna

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.

## OS Other specially protected fauna

Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.

### P Priority species

#### Species which are poorly known; or

Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

## P1 Priority One - Poorly-known species:

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

#### P2 Priority Two - Poorly-known species:

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

### P3 Priority Three - Poorly-known species:

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

### P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are

close to qualifying for Vulnerable, but are not listed as Conservation Dependent. (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.