

Clearing Permit Decision Report

1. Application details			
1.1. Permit application details			
Permit application No.:	6972/1		
Permit type:	Purpose Permit		
1.2. Proponent deta	nils		
Proponent's name:	Quadrant Oil Australia Pty Ltd		
1.3. Property details	S		
Property:	Production Licence TL/2		
Local Government Area:	Shire of Ashburton		
1.4. Application	No. Taxan Mathada (Olaszian Fastha anna a f		
Clearing Area (ha)	No. I rees Method of Clearing For the purpose of: Mechanical Removal Petroleum Production		
4.5 Decision on on			
1.5. Decision on ap Decision on Permit Applic	plication ation: Grant		
Decision Date:	19 May 2016		
2. Site Information			
2.1. Existing enviro	nment and information		
2.1.1. Description of th	e native vegetation under application		
Vegetation Description	Vegetation associations and their communities on Airlie Island were first described by Long and Long (1988) and further refined by Sinclair Knight Merz (1994). In the past, five vegetation associations have been recognised on Airlie Island, where the application area is located:		
	• Beach (dominated by Sporobolous virginicus, Scaevola crassifolia, Angianthus cunninghamii, Spinifex longifolius and Salsola kali);		
	 Foredune (steep and gentle slopes dominated by Eulalia fulva, Spinifex longifolius, Scaevola crassifolia, Ipomoea pes-caprae, Acacia bivenosa, Rhagodia preissii, Sporobolus virginicus, Salsola kali, Angianthus cunninghamii and Acacia coriacea); 		
	• Grassland (dominated by Eulalia fulva, Acacia bivenosa, Rhagodia preissii, , Spinifex longifolius, Salsola kali, Launea sarmentosa, Cyperus bulbosus and ephemerals Triraphis mollis, Setaria dielsii and Portulaca intraterranea);		
	• Low shrubland (dominated by Acacia bivenosa, Rhagodia preissii, Eulalia fulva, Threlkeldia diffusa, Portulaca intraterranea, Sarcostemma australe and Acacia coriacea; and		
	• Open shrubland (dominated by Acacia bivenosa and Acacia coriacea with Rhagodia preissii, Threlkeldia diffusa, Portulaca intraterranea, Boerhavia replete and Euphorbia sp.).		
Clearing Description	Quadrant Oil Australia Pty Ltd proposes to clear up to 2.89 hectares of native vegetation within a total boundary of approximately 10.67 hectares, for the purpose of petroleum production. The project is located on Airlie Island, approximately 35 kilometres north of Onslow, in the Shire of Ashburton.		
Vegetation Condition	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994);		
	To:		
	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).		
Comment	There have been no recent flora or fauna surveys undertaken over the application area. The vegetation condition was inferred from aerial photography (GIS Database).		
	The proposed clearing is to remove an active source of hydrocarbon contamination to groundwater and soils on Airlie Island. The proponent proposes to undertake major maintenance activity on Airlie Island consisting of clearing and the removal of two disused crude storage tanks (Quadrant Energy, 2016).		

Comments	Proposal is not likely to be at variance to this Principle
	The application area occurs within Airlie Island, part of the Pilbara Islands group within the Roebourne subregion of the Pilbara Interim Biogeographic Regionalisation of Australia bioregion (GIS Database).
	There have been no recent flora or vegetation surveys conducted over Airlie Island. Vegetation associations and their communities were first described in 1988, and further refined in 1994 (Long and Long, 1988; Sinclair Knight Merz, 1994). The vegetation distribution is closely related to soil type, and environmental conditions, such as vulnerability to strong winds, wave action and exposure (Quadrant Energy, 2016). The historical survey identified five vegetation associations within the island, with 41 flora taxa representing 19 families (Quadrant Energy, 2016). The area proposed to be cleared has been disturbed by the installation of oil and ga infrastructure on Airlie Island in 1981 (Quadrant Energy, 2016). The vegetation proposed to be cleared has been disturbed at the existing infrastructure to remove hydrocarbon contamination within the application area.
	The application area is located within the buffer zone of the Priority 3 Ecological Community (PEC) 'Coasta dune native tussock grassland dominated by <i>Whiteochloa airoides</i> ' (GIS Database). Available database indicate that the PEC is situated more towards the western side of the island (GIS Database). The propose clearing of 2.89 hectares of previously disturbed native vegetation for the purpose of removing an active source of hydrocarbon contamination is unlikely to significantly impact the PEC, and will likely result in healthier soil and groundwater, and therefore native vegetation.
	A search of the Department of Parks and Wildlife's Threatened and Priority Flora databases revealed no records of Threatened Flora or Priority Flora species within a 5 kilometre radius of the application area (DPaW 2016). A vegetation and weeds monitoring report by Astron (2015) did not identify any significant flora species on Airlie Island, however identified two weed species; Buffel Grass (<i>Cenchrus</i> ciliaris) and Kapok (<i>Aerva javanica</i>). Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower 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 and dieback management condition.
	According to aerial imagery, any potential faunal habitats within the application area exist elsewhere on Airlie Island in a better and healthier condition (GIS Database).
	Based on the above, the proposed clearing is not likely to be at variance to this Principle.
Methodology	Astron (2015) DPaW (2016) Long and Long (1988) Sinclare Knight Merz (1994) Quadrant Energy (2016)
	GIS Database: - IBRA Australia
	- Imagery - Pre-European Vegetation - Threatened and Priority Flora - Threatened and Priority Ecological Communities (TEC/PEC) - Boundaries - Threatened and Priority Ecological Communities (TEC/PEC) – Buffered

Comments Proposal may be at variance to this Principle

No fauna survey was undertaken over the application area. There are several species of conservation significance listed as either threatened species under the *Environment Protection and Biodiversity Conservation Act* (EPBC) *1999* or protected under Western Australian legislation (*Wildlife Conservation Act* (WC) *1950*), which occur on Airlie Island, and therefore potentially the application area (Quadrant Energy, 2015; 2016);

- Wedge-tailed Shearwater (Ardenna pacifica) (Marine, Migratory EPBC; WC);
- Crested Tern (*Thalasseus bergii*) (Marine EPBC);
- Lesser Crested Tern (Thalasseus bengalensis) (Marine, Migratory EPBC; WC);
- Roseate Tern (Sterna dougallii) (Marine, Migratory EPBC; WC);
- Osprey (*Pandion haliaetus*) (Marine, Migratory EPBC; WC);
- White-bellied Sea Eagle (Haliaeetus leucogaster) (Marine, Migratory EPBC; WC);
- Airlie Islands Skink (Ctenotus angusticeps) (Vulnerable EPBC WC);
- Green urtle (Chelonia mydas) (Vulnerable EPBC; WC)
- Hawksbill turtle (*Eretmochelys imbricata*) (Vulnerable EPBC; WC)
- Flatback turtle (*Natator depressus*) (Vulnerable EPBC; WC)

There are no mammal species on Airlie Island; however, the island supports a number of high value habitats including nesting habitat for Wedge-tailed Shearwaters, potential nesting habitat for lesser crested and crested Terns, Roseate Terns, Ospreys and White-bellied Sea Eagles, feeding and breeding habitat for the Airlie Island Skink and breeding habitat for various turtle species (Quadrant Energy, 2015; 2016).

The Airlie Islands Skink is known from 12 locations in north-west Western Australia, and from 12 populations on Airlie Island (Biologic, 2012). No population estimate is available; however 35 individuals were captured by Brown-Cooper & Maryan (1990) in 1990, whereas Surman and Nicholson (2011) estimated a population of 40 individuals on the island. Biologic (2012) suggest there is abundant suitable habitat between locations on Airlie Island. Habitat for the skink is strongly associated with tussock grasses (Browne-Cooper & Maryan 1990; Maryan et al. 2013; Quadrant Energy, 2016). Surman and Nicholson (2011) found that the Skink prefer the western side of the island, but were not necessarily confined to this area. The vegetation within the application area is sparse, and of a degraded nature (Quadrant Energy, 2016; GIS Database), with suitable habitat for this species common outside the application area. Given the small size of the proposed clearing (2.89 hectares), for the purpose of removing an active source of hydrocarbon contamination it is unlikely that the proposed clearing will impact on this fauna species. Potential impacts to conservation significant fauna as a result of the proposed clearing may be minimised by adherence to the environmental management plan.

According to Quadrant Energy (2015), the sandy beaches of Airlie Island are used by several species of marine turtle for nesting purposes during the summer months. Available data (Quadrant Energy, 2015) confirms the Island supports minor nesting for green, hawksbill and flatback turtles; however the extent of marine turtle use of Airlie Islands is unclear because monitoring of turtles has been sporadic and irregular.

Nesting on Airlie Island for the Green and Flatblack turtles occur each year between December to January, while nesting for the Hawksbill turtle occurs from October to November each year (Quadrant Energy, 2015). During a brief site visit to Airlie Island in November 2015, Halfmoon Biosciences (2015) identified nine green turtle tracks, 3 fresh, one with successful nest pit. Restricting clearing of native vegetation between October and January may minimise impacts to nesting turtles. Potential impacts to conservation significant fauna as a result of the proposed clearing may be minimised by the implementation of a fauna management condition.

Airlie Island is known as a nesting area for seabirds and in particular the Wedge-tailed Shearwater, Roseate Tern, Osprey, Silver Gull, Crested Tern, Lesser Crested Tern and White Bellied Sea Eagle. Ospreys are currently nesting on the tank infrastructure as well as other locations on Airlie Island (Halfmoon Biosciences, 2015; Quadrant Energy, 2016). Both nests will be removed in May 2016 prior to the nest construction time to discourage the breeding pair from returning to this site (Quadrant Energy, 2016). Nesting habitat for the Wedge-tailed Shearwater has been identified within Airlie Island, with the birds nesting on Airlie Island from November to April (Quadrant Energy, 2016). Quadrant Energy (2016) commit to scheduling works outside of shearwater breeding season. Potential impacts to conservation significant fauna as a result of the proposed clearing may be minimised by the implementation of a fauna management condition. The majority of the vegetation within the application area has been previously cleared or disturbed, with vegetation immediately outside the application area is in a better and healthier condition to provide habitat for conservation significant fauna species. Given the small size of the proposed clearing (2.89 hectares), for the purpose of removing an active source of hydrocarbon contamination it is unlikely that the proposed clearing will impact on avifauna species.

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

Methodology Biologic (2012) Browne-Cooper & Maryan (1990) Halfmoon Biosciences (2015) Maryan et al (2013) Quadrant Energy (2015) Quadrant Energy (2016) Surman and Nicholson (2011)

> GIS Database - Imagery

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

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

According to available databases, there are no known records of Threatened Flora within the application area (GIS Database). A search of the Department of Parks and Wildlife's Threatened and Priority Flora databases identified no Threatened Flora species as occurring within a 5 kilometre radius of the application area (DPaW, 2016). There are only three Threatened Flora species known the Pilbara, and habitat for these species does not occur on Airlie Island (DPaW, 2016).

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

Methodology DPaW (2016)

GIS Database:

- Threatened and Priority Flora

Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the (d) 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 known Threatened Ecological Communities (TECs) within the application area (GIS Database). There are no known recorded TEC's within 100 kilometres of the application area (GIS Database). Based on the above, the proposed clearing is not likely to be at variance to this Principle. Methodology GIS Database: - Threatened and Priority Ecological Communities (TEC/PEC) - Boundaries - Threatened and Priority Ecological Communities (TEC/PEC) - Buffered Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area (e) that has been extensively cleared. Comments Proposal is not at variance to this Principle The application areas fall within the Pilbara Interim Biogeographic Regionalisation of Australia bioregion (GIS Database). No Beard vegetation association has been mapped for Airlie Island, however the majority of the Pilbara Islands are mapped as Beard vegetation association 117: Hummock grasslands, grass steppe; soft spinifex (GIS Database). Historically mapped vegetation on Airlie Island resembles this vegetation association. The Beard vegetation association 117 retains approximately 99% or above of their pre-European extent at both the state and bioregion level (Government of Western Australia, 2014). If it is assumed that the vegetation on Airlie Island is similar to that of Beard vegetation association 117, then the area proposed to be cleared is not a significant remnant of native vegetation. Assessment of aerial imagery confirms that the proposed clearing is within a previously degraded area and that the clearing of native vegetation will be predominately regrowth. Airlie Island has not been extensively clearing except for the area that is being remediated. Further clearing will not reduce the ecological linkages within the local area, and is unlikely to impact the conservation significance of the pre-European vegetation remaining within the local and regional area. Based on the above, the proposed clearing is not at variance to this Principle. Government of Western Australia (2014) Methodology GIS Database: - IBRA Australia - Pre-European Vegetation Native vegetation should not be cleared if it is growing in, or in association with, an environment (f) associated with a watercourse or wetland. Comments Proposal is not at variance to this Principle According to available databases, there are no permanent watercourses or wetlands within the application area (GIS Database). Based on the above, the proposed clearing is not at variance to this Principle. Methodology GIS Database: - Hydrography, Lakes - Hydrography, linear Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable (g) land degradation. Comments Proposal is not likely to be at variance to this Principle The proposed clearing of 2.89 hectares of native vegetation within an application area of approximately 10.67 hectares is considered unlikely to cause any appreciable land degradation. Clearing and disturbance activities will be undertaken in areas already topographically modified since mid-1980's (Quadrant Energy, 2016). The earthworks to level landform and alter current topography are only required within the existing tank bund area so as to provide a level surface for the safe operation of heavy equipment to enable the tanks to be demolished .The scale of clearing and the nature of the proposed clearing are not likely to result in large areas of disturbed or open land (GIS Database). Given the nature and scale of the proposed activities, the clearing is not likely to result in appreciable land degradation. Page 4

Based on the above, the proposed clearing is not likely to be at variance to this Principle. Methodology Quadrant Energy (2016) **GIS** Database - Imagery Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on (h) 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 is located within Airlie Island Nature Reserve, which is a class 'C' nature reserve (GIS Database). The application area also occurs within the Islands Exmouth Gulf and Rowley Shelf Environmentally Sensitive Area (Register of National Estate) (GIS Database). According to the Australian Heritage Database (2016) the small islands between Exmouth Gulf and the Mary Anne Group, including Airlie Island, have important seabird nesting areas (Australian Heritage Database, 2016). Despite the application area being on the Register of National Estate and an Nature Reserve, it is considered that the proposed clearing to remove an active source of hydrocarbon contamination to groundwater and soils will improve the environmental values of the application area. Given that the proposed clearing is of low impact and of a small scale, the clearing of 2.89 hectares of native vegetation is not likely to significantly impact on the environmental values of the area. Based on the above, the proposed clearing is not likely to be at variance to this Principle. Methodology Australian Heritage Database (2016) **GIS** Database - DPaW Tenure - 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 The application area is not located within a Public Drinking Water Source Area (GIS Database). There are no permanent watercourses or water bodies within the application area (GIS Database). Any surface water within the application areas is likely to only remain for short periods following significant rainfall events. The proposed clearing is not likely to cause deterioration in the quality of any surface water within or outside of the application areas. Given the low impact nature of the proposed clearing activities, the proposed clearing is not likely to cause deterioration in the quality of any underground water. Based on the above, the proposed clearing is not likely to be at variance to this Principle. Methodology GIS Database: - Groundwater Salinity, Statewide - Hydrography, Lakes - Hydrography, linear - Public Drinking Water Source Areas Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the (j) incidence or intensity of flooding. Proposal is not likely to be at variance to this Principle Comments With an average annual rainfall of 316.7 millimetres and an average annual evaporation rate of between 3,200 and 3,600 millimetres there is likely to be little surface flow during normal seasonal rains (BoM, 2016). Whilst large rainfall events may result in flooding of the area, the proposed clearing is not likely to lead to an increase in incidence or intensity of flooding. Based on the above, the proposed clearing is not likely to be at variance to this Principle. Methodology BoM (2016)

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

There are no Native Title claims over the area under application (Department of Aboriginal Affairs, 2016). 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 (Department of Aboriginal Affairs, 2016). 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 28 March 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology Department of Aboriginal Affairs (2016)

Planning instrument, Native Title, RIWI Act Licence, EP Act Licence, Works Approval, Previous EPA decision or other matter.

Comments

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The clearing permit application was advertised on 25 April 2016 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

Methodology Department of Aboriginal Affairs (2016)

4. References

Astron (2013) Biodiversity Values Assessment Thevenard Island Operations Terrestrial Environment. Prepared by Astron Environmental Services for Chevron Australia Pty Ltd, November 2013.

Astron (2015) Thevenard Island Operations Terrestrial Ecological Monitoring Report. Prepared by Astron Environmental Services for Chevron Australia Pty Ltd, April 2015.

Australian Heritage Database (2016) Department of the Environment. Australian Government,

http://www.environment.gov.au/cgi-bin/ahdb/search.pl?mode=place_detail;place_id=10050. (Accessed 22 April 2016).

Chevron (2016) CPS 7024/1 – Chevron's Clearing Assessment Report. Prepared by Chevron Australia Pty Ltd, 2016.

DEC (2012) Fauna Profiles – Lakeland Downs Short-tailed Mouse *Leggadina lakedownensis*. Department of Environment and Conservation (now Department of Parks and Wildlife), https://www.dpaw.wa.gov.au/images/documents/plants-animals/animals/animal_profiles/lakeland-downs-short-tailed-mouse_2012.pdf. (Accessed 16 May 2016).

Department of Aboriginal Affairs (2016) Aboriginal Heritage Enquiry System. Government of Western Australia, http://maps.dia.wa.gov.au/AHIS2/. (Accessed 16 May 2016).

Department of Parks and Wildlife (DPaW) (2016) NatureMap Department of Parks and Wildlife,

http://naturemap.dec.wa.gov.au. (Accessed 26 April 2016).

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

5. Glossary

Acronyms:

ВоМ	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DPaW and DER)
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:

т

{DPaW (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

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

P4

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.

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.