

# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 8070/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Urban Resources Pty Ltd

### 1.3. Property details

Property: Mining Lease 70/1329  
Local Government Area: City of Wanneroo and City of Swan  
Colloquial name: Boundary Road Sand Mine

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 19 July 2018

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

**Vegetation Description** The vegetation of the application area is broadly mapped as the following Beard vegetation association: 949: Low woodland; banksia (GIS Database).

A level 1 flora and vegetation survey was conducted over the application area by Strategen Environmental (Strategen) 1 November 2017, which identified the following vegetation association within the application area:

- *Nuytsia floribunda* and \**Pinus pinaster* open low woodland over *Xanthorrhoea preissii* and *Macrozamia riedlei* low sparse shrubland over *Lechenaultia floribunda*, \**Eragrostis curvula* and \**Ehrharta calycina* mixed open herbland/grassland.

**Clearing Description** Boundary Road Sand Mine.  
Urban Resources Pty Ltd proposes to clear up to 17.73 hectares of native vegetation within a boundary of approximately 17.73 hectares, for the purpose of mineral production. The project is located approximately 7 kilometres north-east of Wanneroo, within the City of Wanneroo and City of Swan.

**Vegetation Condition** Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

**Comment** The vegetation condition was derived from a vegetation survey conducted by Strategen (2018).

## 3. Assessment of application against Clearing Principles

### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

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

The clearing permit application area is located within the Perth subregion of the Interim Biogeographic Regionalisation for Australia Swan Coastal Plain Bioregion (GIS Database). This subregion is comprised of colluvial and Aeolian sands, alluvial river flats, and coastal limestone. It is characterised by Heath and/or Tuart woodlands on limestone, Banksia and Jarrah-Banksia woodlands on Quaternary marine dunes of various ages, and Marri on colluvial and alluvials (CALM, 2002).

The vegetation that occurs within the application area is regrowth from a Pine (*Pinus pinaster*) plantation that was cleared in 2006, however the local area has been subject to historical disturbances from silviculture practices since the 1960s (Strategen, 2018). The original native vegetation was cleared to establish the Gngangara Pine Plantation (GIS Database). A level 1 flora and vegetation survey was conducted over the application area, which surveyed 26 native vascular plants from 24 genera and 17 families (Strategen, 2018). The relatively low number of plant genera recorded reflects the disturbed nature of the application area (Strategen, 2018). No Threatened or Priority Flora species, Threatened or Priority Ecological Communities were recorded within the application area (Strategen, 2018; GIS Database).

The area proposed to be cleared is not considered to be remnant vegetation and the vegetation within the application area has been previously removed and consists of regrowth (Strategen, 2018). The condition of the vegetation types are classified as 'degraded' (Keighery, 1994). No vegetation units within the application area were considered to be of high conservation significance and habitat diversity was very low within the application area despite being within the Gnaragara-Moore River State Forest (GIS Database).

Faunal habitats within the application area are limited due to the lack of vegetative cover and landform features, and the existing level of disturbance (GIS Database). The application area is not likely to have a higher level of faunal diversity than the surrounding area.

There were 11 weed species identified within the application area (Strategen, 2018). The application area is also located within a dieback risk zone (GIS Database). Weeds and dieback 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.

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

**Methodology** CALM (2002)  
Strategen (2018)

GIS Database:  
- IBRA Australia  
- Imagery  
- 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 is not likely to be at variance to this Principle**

No fauna survey has been conducted over the application area. The application area is almost completely degraded and unlikely to provide habitat or a food source specific for any conservation significant fauna (Strategen, 2018; GIS Database). Aerial imagery identified nearby vegetation in the local area that is in significantly healthier condition in which fauna species are more likely to inhabit (GIS Database).

Fauna habitat within the application area is limited due to the sparse nature of the understorey and small stature of the re-growth (GIS Database). There is one conservation significant species that may potentially occur within the application area; the Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) (Endangered - Schedule 2) (GIS Database). The habitat type within the application area is sparse in nature, has a high weed presence, and lacks a dominant mid and upper storey vegetation structure (GIS Database). There is an availability of similar habitat that appears to be in a better condition outside the area under application (GIS Database). The vegetation within the application area comprises of regrowth that is approximately 12 years old and is not considered mature enough or in a suitable condition to provide significant habitat for faunal species (GIS Database). Given the degraded nature of the vegetation within the application area and the availability of similar habitat that appears to be in a better condition outside the area under application (GIS Database), the proposed clearing is not likely to impact core foraging habitat for the Carnaby's Black Cockatoo.

Given the extent of previous clearing that has occurred within the application area, the degraded condition of the majority of the application area and the relatively small area to be cleared (17.73 hectares), the proposed clearing is not likely to impact critical feeding or breeding habitat for any conservation significant fauna species.

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

**Methodology** Strategen (2018)

GIS Database:  
- Imagery  
- 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**

According to available databases, there are no known records of Threatened Flora within the application area (GIS Database). A search of the available databases identified no known records of the Threatened Flora species occurring within a 5 kilometre radius of the application area (GIS Database).

Strategen (2018) conducted a Level 1 flora survey of the application area on 1 November 2017. No Threatened Flora was recorded within the survey area.

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

**Methodology** Strategen (2018)

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 known Threatened Ecological Communities (TECs) within the application area (GIS Database). There are approximately four known TEC's located within 5 kilometres of the application area (GIS Database). Mapped boundaries of the Banksia woodlands of the Swan Coastal Plain Threatened Ecological Community occur within the application area, however, this community type was not inferred to occur within the site based on floristic composition (Strategen, 2018).

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

**Methodology** Strategen (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 Swan Coastal Plain Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 56% of its pre-European extent which is more than the 30% threshold level recommended in the National Objectives Targets for Biodiversity Conservation, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). According to the Government of Western Australia (2014), Beard vegetation association 949 retains approximately 57% of its pre-European extent in the Swan Coastal Plain bioregion and Perth subregion.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA Managed Lands (and post clearing %)
IBRA Bioregion - Swan Coastal Plain	1,501,222	578,997	~38.57	Depleted	270,073.39 (222,766.51)
IBRA Subregion - Perth	1,117,757	465,509	~41.65	Depleted	229,365 (183,018)
Local Government - City of Swan	104,252	44,620	~42.80	Depleted	19,404 (12,924)
Local Government - City of Wanneroo	67,517	29,755	~44.07	Depleted	32,140 (16,029)
Beard vegetation associations - State					
949	218,193	122,966	~56.36	Least concern	91,811
Beard vegetation associations - Bioregion					
949	209,983	120,150	~57.22	Least concern	90,869 (67,824)
Beard vegetation associations - subregion					
949	184,476	104,016	~56.38	Least concern	84,190 (61,407)

\* Government of Western Australia (2018)

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

Assessment of aerial imagery and supporting information (Strategen, 2018; GIS Database) confirms that the proposed clearing is within a degraded area and that the clearing of native vegetation will be predominately regrowth from a Pine (*Pinus pinaster*) plantation that was cleared in 2006. 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. The area proposed to be cleared is not considered to be remnant vegetation (Strategen, 2018).

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

**Methodology** Commonwealth of Australia (2001)  
Department of Natural Resources and Environment (2002)  
Government of Western Australia (2018)  
Strategen (2018)

GIS Database:  
- IBRA Australia  
- 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 not at variance to this Principle**

According to available databases, there are no permanent watercourses or wetlands within the application area (GIS Database). Strategen (2018) did not identify any riparian vegetation within the application area.

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

**Methodology** Strategen (2018)

GIS Database:  
- Hydrography, Lakes  
- Hydrography, linear

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

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

The application area is associated with subdued dune-swale terrain with limestone at depth (Northcote et al, 1968; GIS Database). Chief soils are white sandy soils (Northcote et al, 1968). Generally, these soils have a high risk of wind erosion and a low risk of water erosion due to the high infiltration rates associated with sands. The majority of the area under application has a low risk of salinity.

The proposed clearing has a high risk of causing wind erosion, given the sandy soils, and may cause appreciable land degradation. Potential land degradation impacts as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

The application area intercepts areas categorised as 'low' to 'moderate' Acid Sulphate Soil (ASS) risk (Strategen, 2018; GIS Database). ASS are likely to occur at depths of three metres or greater. The soil exposed from clearing native vegetation is not likely to form acid on exposure to air.

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

**Methodology** Northcote et al (1968)  
Strategen (2018)

GIS Database:  
- Acid Sulphate Soil Risk Map, Swan Coastal Plain  
- Landsystem Rangelands  
- Soils, Statewide

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

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

The application area is located within the Gngangara-Moore River State Forest, which is managed by the Department of Biodiversity Conservation and Attractions (formerly DPaW) (GIS Database). The Gngangara-Moore River State Forest covers an area in excess of 70,000 hectares; however a large portion is covered by pine plantations (GIS Database). The application area is a cleared Pine (*Pinus pinaster*) plantation, where the native vegetation was historically cleared to establish the plantation (GIS Database). The degraded condition of the native vegetation is due to the high number of weeds and historical clearing (Strategen. 2018). Given this, the proposed clearing is not likely to provide a significant ecological linkage, and is not likely to impact the environmental values of the conservation area.

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

**Methodology Strategen (2018)**

GIS Database:  
- DPaW Tenure  
- Imagery

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

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

The application area is located within the Priority One Gngangara Public Drinking Water Source Area (the Gngangara Underground Water Pollution Control Area) (GIS Database). The Department Water and Environmental Regulation (DWER) have considered the proposal and advise that the proposed activities are considered to be compatible with conditions in a P1 source protection area (DWER, 2018). The application area is located within the proclaimed Swan River groundwater area under the *Rights in Water and Irrigation Act 1914* (GIS Database). Any groundwater extraction and/or taking or diversion of surface water for the purposes other than domestic and/or stock watering is subject to licence by DWER.

There are no permanent or ephemeral water bodies located within the application area (GIS Database). The application area has a groundwater salinity that is fresh (<500 milligrams/Litre Total Dissolved solids (TDS)) (GIS Database). Although the proposed clearing may increase the amount of rainwater that infiltrates to the groundwater, given the nature of the Bassendean sands within the application area, the proposed clearing is not likely to adversely impact the quality of groundwater (Strategen, 2018; GIS Database). The proposed clearing is unlikely to deteriorate the quality of underground water (GIS Database).

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

**Methodology DWER (2018)  
Strategen (2018)**

GIS Database:  
- Groundwater Salinity  
- 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**

There are no watercourses or wetlands within the application area (GIS Database).

The vegetation is not growing in association with any low lying areas which may be prone to seasonal inundation (GIS Database). The application area is predominately comprised of leached Bassendean sands, which are generally considered to have high infiltration rates and therefore a low risk of water logging (Churchward & McArthur, 1980). Given the soils are well drained and that average annual evaporation rate (1,800 - 2,000 millimetres) is well above the annual rate of rainfall (732.8 millimetres), the risk of flooding is low (BOM, 2018).

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

**Methodology BOM (2018)  
Churchward & McArthur (1980)**

GIS Database:  
- Hydrographic Catchments - Catchments

## Planning Instrument, Native Title, previous EPA decision or other matter.

### Comments

The clearing permit application was advertised on 28 Month 2018 by the Department of Mines, Industry Regulation and Safety (DMIRS), inviting submissions from the public. One submission was received in relation to this application.

There are no native title claims over the area under application (DPLH, 2018). 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.

The application area is located within the draft Perth and Peel Green Growth Plan for 3.5 million (Green Growth Plan). The Green Growth Plan is draft and is currently suspended, therefore, has no statutory basis at this time and is therefore not a consideration in this application.

**Methodology** DPLH (2018)

## 4. References

- BoM (2018) Climate Statistics for Australian Locations. A Search for Climate Statistics for Perth Metro, Australian Government Bureau of Meteorology, viewed 19 June 2018, <[http://reg.bom.gov.au/climate/averages/tables/cw\\_009225.shtml](http://reg.bom.gov.au/climate/averages/tables/cw_009225.shtml)>.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- Churchward H. M. & McArthur WM (1980) 'Landforms and Soils of the Darling System' in Atlas of Natural Resources, Darling System, Western Australia. Government of Western Australia.
- Commonwealth of Australia (2001) National objectives and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra, ACT.
- 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. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 18 June 2018).
- DWER (2018) Advice received in relation to Clearing Permit Application CPS 8070/1. Department of Water and Environmental Regulation, Western Australia, June 2018.
- 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>
- Northcote, K. H., Beckmann G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Strategen (2018) Native Vegetation Clearing Permit Application – Supporting Documentation, Boundary Road Sand Mind. Prepared for Urban Resources, By Strategen Environmental Consultants Pty Ltd, April 2018.

## 5. Glossary

### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>DAA</b>	Department of Aboriginal Affairs, Western Australia (now DPLH)
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia (now DPIRD)
<b>DBCA</b>	Department of Biodiversity Conservation and Attractions, Western Australia
<b>DEC</b>	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
<b>DEE</b>	Department of the Environment and Energy, Australian Government
<b>DER</b>	Department of Environment Regulation, Western Australia (now DWER)
<b>DMIRS</b>	Department of Mines, Industry Regulation and Safety, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia (now DMIRS)

<b>DPIRD</b>	Department of Primary Industries and Regional Development, Western Australia
<b>DPLH</b>	Department of Planning, Lands and Heritage, Western Australia
<b>DRF</b>	Declared Rare Flora
<b>DoE</b>	Department of the Environment, Australian Government (now DEE)
<b>DoW</b>	Department of Water, Western Australia (now DWER)
<b>DPaW</b>	Department of Parks and Wildlife, Western Australia (now DBCA)
<b>DSEWPaC</b>	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
<b>DWER</b>	Department of Water and Environmental Regulation, Western Australia
<b>EPA</b>	Environmental Protection Authority, Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i> , Western Australia
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>PEC</b>	Priority Ecological Community, Western Australia
<b>RIWI Act</b>	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
<b>TEC</b>	Threatened Ecological Community

### Definitions:

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

<b>T</b>	<p><b>Threatened species:</b> Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, 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).</p> <p><b>Threatened fauna</b> is that subset of ‘Specially Protected Fauna’ declared to be ‘likely to become extinct’ pursuant to section 14(4) of the <i>Wildlife Conservation Act 1950</i>.</p> <p><b>Threatened flora</b> 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 <i>Wildlife Conservation Act 1950</i>.</p> <p>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.</p>
<b>CR</b>	<p><b>Critically endangered species</b> Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
<b>EN</b>	<p><b>Endangered species</b> Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
<b>VU</b>	<p><b>Vulnerable species</b> Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
<b>EX</b>	<p><b>Presumed extinct species</b> 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 <i>Wildlife Conservation Act 1950</i>, 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.</p>
<b>IA</b>	<p><b>Migratory birds protected under an international agreement</b> 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 <i>Wildlife Conservation Act 1950</i>, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p>
<b>CD</b>	<p><b>Conservation dependent fauna</b></p>

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.