



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8847/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Hamersley Iron – Yandi Pty Ltd

1.3. Property details

Property: Miscellaneous Licence 47/100
Local Government Area: Shire of Ashburton
Colloquial name: West Angelas Fibre Optic Cable

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
5		Mechanical Removal	Fibre Optic Cable and Associated Activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 28 May 2020

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:
18: Low woodland; mulga (*Acacia aneura*).

A flora and vegetation survey was conducted over the application area by AECOM during November, 2019. The following vegetation communities were recorded within the application area (AECOM, 2020):

EgAaTv: *Eucalyptus ?gamophylla*, *Eucalyptus ?trivalva* and *Corymbia hamersleyana* mid open woodland over *Acacia ancistrocarpa*, *Acacia tenuissima* and *Acacia bivenosa* tall to mid shrubland over *Triodia ?vanleeuwenii*, *Triodia pungens* and *Themeda* sp. Mt Barricade (M.E. Trudgen 2471) low grassland.

AiAdTv: *Acacia inaequilatera*, *Acacia macraneura* and *Eucalyptus leucophloia* subsp. *leucophloia* low scattered trees over *Acacia dictyophleba*, *Corchorus lasiocarpus* and *Acacia bivenosa* mid mixed shrub and forland over *Triodia ?vanleeuwenii*, *Triodia pungens* and *Enneapogon polyphyllus* low grassland.

EIAbTM: *Eucalyptus leucophloia* subsp. *leucophloia*, *Acacia colei* var. *colei* and *Acacia ancistrocarpa* mid open woodland over *Acacia bivenosa*, *Gossypium robinsonii* and *Senna glutinosa* subsp. *x luerssenii* tall to mid open shrubland over *Themeda* sp. Mt Barricade (M.E. Trudgen 2471), *Triodia pungens* and *Eriachne mucronata* low grassland.

EIAAtw: *Eucalyptus leucophloia* subsp. *leucophloia*, *Hakea lorea* and *Acacia inaequilatera* open woodland over *Acacia tenuissima*, *Acacia atkinsiana* and *Capparis lasiantha* mid open shrubland over *Triodia wiseana*, *Triodia ?vanleeuwenii* and *Eulalia aurea* low grassland.

Clearing Description

West Angelas Fibre Optic Cable.
Hamersley Iron – Yandi Pty Ltd proposes to clear up to 5 hectares of native vegetation within a boundary of approximately 21.8 hectares, for the purpose of a fibre optic cable. The project is located approximately 89 kilometres east of Tom Price, within the Shire of Ashburton.

Vegetation Condition

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

Comment

The vegetation condition was derived from a vegetation survey conducted by AECOM (2020).

The proposed clearing is for a fibre optic cable to the Juna Downs substation.

The timing of the survey in November meant that no ephemeral species were recorded and some species were unable to be identified to species level due to a lack of flowering material (AECOM, 2020). There was significantly lower rainfall in July – October period preceding the flora survey which also contributed to the survey not recording as many species as expected.

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 Hamersley subregion of the Pilbara Interim Biogeographic Regionalisation for Australia (IBRA) Bioregion (GIS Database). The Hamersley subregion is characterised by ranges and plateaux, dissected by gorges, supporting Mulga low woodland over bunch grass (CALM, 2002).

The flora and vegetation survey of the permit area identified four vegetation communities (AECOM, 2020). None of the vegetation communities within the permit area have been identified as a Threatened or Priority Ecological Community (AECOM, 2020; GIS Database).

A total of 52 flora species from 30 genera and 18 families were recorded within the permit area (AECOM, 2020). The number of species within the permit area is likely to be higher as this does not include any ephemeral species which were not identifiable at the time of the survey. No species of Threatened flora were recorded within the permit area (AECOM, 2020; GIS Database). The Priority 3 flora species *Rhagodia* sp. Hamersley was recorded in one quadrat during the flora survey (AECOM, 2020). Due to this species only being identified from material following the survey, numbers of individuals were not recorded (AECOM, 2020). There are 67 records of this species lodged at the Western Australian Herbarium (1998-). It has been recorded numerous times in the West Angelas area from a range of vegetation communities, which suggests that it is not limited to a restricted habitat (AECOM, 2020). *Goodenia* sp. East Pilbara (Priority 3) was considered likely to occur within the permit area based on known records within 5 kilometres and suitable habitat being present (AECOM, 2020). Due to the dry conditions at the time of the survey it was not detectable (AECOM, 2020). Based on known records and the habitat present in the permit area, it was considered that *Aristida jerichoensis* var. *subspinulifera* (Priority 3) may also be present within the permit area (AECOM, 2020). The vegetation within the permit area is common in the local area and the proposed clearing of 5 hectares for a fibre optic cable is not likely to significantly impact on habitat for Priority flora species.

No species of weeds were recorded during the flora survey (AECOM, 2020). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. Care should be taken to ensure that weeds do not get introduced into the area as the result of clearing activities. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

There were three broad fauna habitats identified within the permit area (AECOM, 2020). These habitats are common in the local area and are not likely to support a higher level of faunal diversity than surrounding areas.

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

Methodology AECOM (2020)
CALM (2002)
Western Australian Herbarium (1998-)

GIS Database:
- IBRA Australia
- Pre-European Vegetation
- Threatened and Priority Ecological Communities Boundaries
- Threatened and Priority Ecological Communities Buffers
- Threatened and Priority Flora
- 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**

The following three broad fauna habitats have been recorded within the application area (AECOM, 2020):

- Minor Drainage / Tussock Grassland - Minor drainage including ephemeral creeks with tussock grasses on the banks providing ample ground cover. Shrubs are moderately dense with scattered Eucalypt trees present. Small logs present, hollows largely absent
- Eucalypt Woodland - Eucalypt woodland on skeletal soils on slopes. Minimal groundcover present. Small to medium logs present, hollows absent.
- Spinifex with emergent shrubs and trees - Spinifex grassland on skeletal/rocky soils recorded on lower slopes. Bare ground is high and minimal leaf and log litter available. Small hollows present.

These habitats are common in the surrounding area and are likely to be used by fauna species as a part of a larger range than be reliant specifically on the habitat within the permit area. There were no significant habitat features such as caves, permanent water sources or burrows observed in the permit area (AECOM, 2020).

Several species of conservation significance including the Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia* – Vulnerable), Ghost Bat (*Macroderma gigas* – Vulnerable), Pilbara Olive Python (*Liasis olivaceus barroni* – Vulnerable), Peregrine Falcon (*Falco peregrinus* – Other Specially Protected Fauna) and Western Pebble-mound Mouse (*Pseudomys chapmani* – Priority 4) have the potential to be found within the permit area (AECOM, 2020). The Western Pebble-mound Mouse was considered the most likely to utilise the habitat within the permit area however, there were no mounds observed in the permit area during the flora survey (AECOM, 2020). Most of these species are likely to use the permit area for foraging and dispersal but it is not likely to represent significant habitat for native fauna.

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

Methodology AECOM (2020)

(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 (AECOM, 2020). Based on the habitat present within the permit area, it is not likely that the vegetation would support Threatened flora species (AECOM, 2020; GIS Database).

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

Methodology AECOM (2020)

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 permit area (GIS Database). A flora and vegetation survey of the application area did not identify any vegetation communities as representing a TEC (AECOM, 2020).

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

Methodology AECOM (2020)

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 Pilbara Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99.57% of the pre-European vegetation still exists in the Pilbara Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation association 18 (GIS Database). This vegetation association has not been extensively cleared as over 99% of the pre-European extent of this vegetation association remains uncleared at both the state and bioregional level (Government of Western Australia, 2019). The permit area does not contain any remnants nor does it form part of any remnants in the local area (GIS Database).

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

Methodology Government of Western Australia (2019)

GIS Database:
- IBRA Australia
- Pre-European Vegetation

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

Comments Proposal is at variance to this Principle

There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). There are several ephemeral drainage lines which pass through the permit area (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall. The vegetation community EIAbTM is associated with ephemeral drainage lines within the permit area (AECOM, 2020). There was 6.39 hectares of this vegetation community mapped within the permit area (AECOM, 2020). This vegetation community had the greatest species richness, with 42 native flora species recorded (AECOM, 2020). There are numerous ephemeral watercourses in the local area and the proposed clearing for a fibre optic cable is not likely to significantly impact on the extent of riparian vegetation.

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

Methodology AECOM (2020)

GIS Database:
- Hydrography, linear

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

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

The application area lies within the Boolgeeda 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 Boolgeeda land system is described as stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands and mulga shrublands (Van Vreeswyk et al., 2004). This land system is generally not prone to degradation and is not susceptible to erosion (Van Vreeswyk et al., 2004).

The proposed clearing of up to 5 hectares of native vegetation within a boundary of approximately 21.8 hectares, for the purpose of a fibre optic cable is unlikely to cause appreciable land degradation.

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

Methodology Van Vreeswyk et al. (2004)

GIS Database:
- Landsystem Rangelands

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

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

The permit area is not located within any conservation areas (GIS Database). The nearest DBCA managed land is the former Juna Downs Pastoral Lease which is located approximately one kilometre north of the permit area (GIS Database). The vegetation within the permit area does not form part of a linkage to this conservation area (GIS Database). The proposed clearing needs to be appropriately managed to ensure weeds aren't introduced into the nearby conservation area. Potential impacts to the conservation area from weeds may be minimised by the implementation of a weed management condition. The proposed clearing is unlikely to impact on the environmental values of any conservation area.

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

Methodology GIS Database:
- DPaW Tenure
- 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

There are no Public Drinking Water Source Areas within or in close proximity to the permit area (GIS Database). The proposed clearing is unlikely to cause deterioration in the quality of underground water.

There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database). There

are several minor ephemeral drainage lines which intersect the permit area (GIS Database). Creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall. The proposed clearing is unlikely to result in significant changes to surface water flows or water quality.

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

Methodology GIS Database:
- 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 324.3 millimetres per year (BoM, 2020). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall.

There are no permanent water courses or waterbodies within the application area (GIS Database). There are several minor ephemeral drainage lines which intersect the permit area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing of 5 hectares is unlikely to increase the incidence or intensity of natural flooding events.

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

Methodology BoM (2020)

GIS Database:
- Hydrography, linear

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

Comments

The clearing permit application was advertised on 4 May 2020 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 over the area under application (DPLH, 2020). This claim has been determined by the Federal Court on behalf of the claimant groups. 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, 2020). 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 (2020)

4. References

- AECOM (2020) Fibre Optic Cable Flora and Fauna Assessment. Report prepared for Hamersley Iron – Yandi Pty Ltd by AECOM, dated 25 February 2020.
- BoM (2020) Bureau of Meteorology Website – Climate Data Online, Newman Aero. Bureau of Meteorology. <http://www.bom.gov.au/climate/data/> (Accessed 14 May 2020).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.
- DPLH (2020) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. <http://maps.daa.wa.gov.au/AHIS/> (Accessed 14 May 2020).
- Government of Western Australia (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth. <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.

Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) An inventory and condition survey of the Pilbara Region, Western Australia. Technical Bulletin No. 92. Department of Agriculture, South Perth, Western Australia.
 Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <https://florabase.dpaw.wa.gov.au/> (Accessed 14 May 2020).

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DoEE	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 DoEE)
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 DoEE)
DWER	Department of Water and Environmental Regulation, Western Australia
EPA	Environmental Protection Authority, Western Australia
EP Act	<i>Environmental Protection Act 1986</i> , Western Australia
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (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	<i>Rights in Water and Irrigation Act 1914</i> , Western Australia
TEC	Threatened Ecological Community

Definitions:

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-

T Threatened species:

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

Threatened fauna is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

Threatened flora is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

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 in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines”.

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

EN **Endangered species**

Threatened species considered to be “facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines”.

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

VU

Vulnerable species

Threatened species considered to be “*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*”.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

Extinct Species:

EX

Extinct species

Species where “*there is no reasonable doubt that the last member of the species has died*”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

EW

Extinct in the wild species

Species that “*is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

Specially protected species:

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

MI

Migratory species

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes 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 fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

CD

Species of special conservation interest (conservation dependent fauna)

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

OS

Other specially protected species

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation*

P **Priority species:**

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species 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.