Government of Western Australia
Department of Mines, Industry Regulation and Safety

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8713/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Shine Resources Pty Ltd**

1.3. Property details

Property: Miscellaneous Licence 24/241
Local Government Area: City of Kalgoorlie-Boulder
Colloquial name: Chameleon Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
17.4		Mechanical Removal	Haul Road

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 23 January 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 associations:
521: Medium woodland; salmon gum and red mallee; and
2903: Medium woodland; salmon gum, goldfield blackbutt, gimlet and *Allocasuarina cristata* (GIS Database).

A vegetation survey was conducted over the application area by Botanica Consulting, on 10 October 2019. The following three vegetation associations were recorded within the application area (Botanica, 2019):

CLP-CFW1: Low woodland of *Casuarina pauper* over mixed low open shrubland on clay-loam plain;

CLP-EW1: Low woodland of *Eucalyptus salmonophloia* / *E. salubris* over mixed low chenopod shrubland on clay-loam plain; and

RH-CFW1: Low woodland of *Casuarina pauper* over mixed low shrubland on rocky hillslope.

Clearing Description

Chameleon Project.
Shine Resources Pty Ltd proposes to clear up to 17.4 hectares of native vegetation within a boundary of approximately 17.4 hectares, for the purpose of a haul road. The project is located approximately 68 kilometres northwest of Kalgoorlie, within the City of Kalgoorlie-Boulder.

Vegetation Condition

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

To:

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

Comment

The vegetation condition was derived from an analysis of aerial imagery, and information provided by Botanica Consulting (Botanica, 2019).

The proposed haul road is approximately seven kilometres long, and runs in a north-easterly direction from the Goldfields Highway to the proposed Chameleon minesite. The proposed haul road corridor partly coincides with an existing road.

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 Eastern Murchison subregion of the Interim Biogeographic Regionalisation for Australia (IBRA) Murchison Bioregion (GIS Database). The subregion is characterised by its internal drainage and extensive areas of red sandplains, supporting Mulga woodlands, hummock grasslands, saltbush shrublands and Halosarcia shrublands (CALM, 2002).

According to available databases, no Threatened Ecological Communities or Priority Ecological Communities have been recorded within or in close proximity to the application area (GIS Database).

A targeted flora, vegetation and fauna survey focussing on conservation significant species or communities was conducted over the application area on 10 October 2019 (Botanica, 2019). Desktop searches of available databases, identified two Threatened flora species and 12 Priority flora species with the potential to occur within the application area, based on known distributions and habitat preferences (Botanica, 2019). However, no Threatened or Priority flora species were recorded during the targeted survey, and the vegetation within the survey area was not representative of any Threatened or Priority Ecological Communities (Botanica, 2019).

The application area is located within the Mt Vetters Pastoral Lease and some previous disturbance has occurred from pastoral activities, mineral exploration, and access tracks (GIS Database).

No weed species were recorded during the targeted survey of the application area, although a full flora survey was not undertaken. A flora and vegetation survey conducted over the adjacent proposed Chameleon minesite area also did not record any weed species (Botanica, 2017). Weeds have the potential to out-compete native species and reduce the biodiversity of an area, and care should be taken to prevent the introduction or spread of weeds in the application area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The vegetation associations, fauna habitats and landform types present within the application area, are well represented in surrounding areas (Botanica, 2019; GIS Database). The application area is unlikely to represent an area of higher biodiversity than surrounding areas, in either a local or regional context.

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

Methodology

Botanica (2017)
Botanica (2019)
CALM (2002)

GIS Database:
- Cadastre
- IBRA Australia
- Imagery
- 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

A fauna survey has not been conducted over the application area. The vegetation survey report described the landforms within the application area as: Clay-loam Plain, and Rocky Hillslope (Botanica, 2019).

There are no known records of Threatened fauna within or in close proximity to the application area (GIS Database). Desktop searches of available databases, recorded Malleefowl (VU) as potentially occurring within 20 kilometres of the application area (Botanica, 2019; DBCA, 2020). However, the generally sparse vegetation of the application area is unlikely to represent preferred breeding habitat for Malleefowl (Botanica, 2019). A targeted survey of the application area did not identify any Malleefowl mounds or evidence of the presence of Malleefowl (Botanica, 2019). Although Malleefowl may pass through the application area, the proposed clearing of 17.4 hectares for a haul road is unlikely to have any significant impact on the availability of foraging habitat for Malleefowl.

The surrounding area remains largely uncleared and fauna habitats within the application area are well represented in the surrounding region (Botanica, 2019; GIS Database). The area proposed to be cleared is unlikely to represent a significant habitat for fauna in a local or regional context.

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

Methodology Botanica (2019)
DBCA (2020)

GIS Database:
- Imagery
- Pre-European Vegetation
- Threatened Fauna

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

Comments **Proposal is not likely to be at variance to this Principle**
There are no known records of Threatened flora within or in close proximity to the application area (Botanica, 2019; GIS Database). Desktop searches of available databases identified two Threatened flora species with the potential to occur within the application area, however, a targeted flora survey of the application area did not identify any species of Threatened flora (Botanica, 2019).

The vegetation associations within the application area are common and widespread within the region (Botanica, 2019; GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened (rare) flora.

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

Methodology Botanica (2019)

GIS Database:
- Pre-European Vegetation
- Threatened and Priority Flora

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments **Proposal is not likely to be at variance to this Principle**
There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (GIS Database). A targeted flora and vegetation survey of the application area did not identify any TECs (Botanica, 2019).

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

Methodology Botanica (2019)

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 Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 99% of the pre-European vegetation still exists in the IBRA Murchison Bioregion (Government of Western Australia, 2019). The application area is broadly mapped as Beard vegetation associations: 521: Medium woodland; salmon gum and red mallee; and 2903: Medium woodland; salmon gum, goldfield blackbutt, gimlet and *Allocasuarina cristata* (GIS Database). Approximately 96 - 100% of the pre-European extent of each of these vegetation associations remains uncleared at both the state and bioregional level (Government of Western Australia, 2019).

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

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA managed lands
IBRA Bioregion – Murchison	28,120,586	28,044,823	~99	Least Concern	7.78
Beard vegetation associations – WA					
521	122,059	122,059	~100	Least Concern	5.83
2903	28,308	27,330	~96	Least Concern	-
Beard vegetation associations – Murchison Bioregion					
521	11,711	11,711	~100	Least Concern	53.64
2903	28,295	27,317	~96	Least Concern	-

* Government of Western Australia (2019)
** Department of Natural Resources and Environment (2002)

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

Methodology Department of Natural Resources and Environment (2002)
Government of Western Australia (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).

Three minor drainage lines cross the proposed road corridor (GIS Database). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall. No riparian vegetation was recorded within the application area (Botanica, 2019). However, the road construction has the potential to interrupt the natural drainage flows and deprive downstream vegetation of water.

Based on the above, the proposed clearing is at variance to this Principle. Potential impacts to vegetation growing in association with the watercourses may be minimised by the implementation of a watercourse management condition.

Methodology Botanica (2019)

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 lies within the Campsite, Doney, and Moriarty land systems (GIS Database). These land systems have been mapped and described in technical bulletins produced by the former Department of Agriculture (now the Department of Primary Industries and Regional Development).

The Campsite land system is described as alluvial plains supporting eucalypt woodlands with halophytic understoreys and acacia shrublands (Pringle et al., 1994). This land system is susceptible to erosion if protective stony mantles or vegetation is removed, particularly in association with drainage tracts (Pringle et al., 1994).

The Doney land system consists of calcareous plains with eucalypt woodlands adjacent to salt lake systems (Pringle et al., 1994). This land system is not generally susceptible to erosion (Pringle et al., 1994).

The Moriarty land system is described as low greenstone rises and stony plains, supporting chenopod shrublands with patchy eucalypt over-storeys (Pringle et al., 1994). This land system is moderately susceptible to water erosion if the soil surface is disturbed or vegetation is removed, particularly in association with drainage tracts (Pringle et al., 1994).

Based on the above, the proposed clearing may be at variance to this Principle. Potential land degradation may be minimised by the implementation of a watercourse management condition.

Methodology Pringle et al. (1994)

GIS Database:
- Hydrography, Lakes
- Hydrography, linear
- Imagery
- 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**

There are no DBCA managed lands within the application area. The nearest DBCA (formerly DPaW) managed land is the former Credo Pastoral Lease which is located approximately one kilometre northwest of the application area, at its nearest point (GIS Database). The proposed linear clearing for a haul road is unlikely to impact on the environmental values of any DBCA managed lands.

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

Methodology GIS Database:
- DPaW Tenure

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

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

There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). There are no permanent watercourses or wetlands within the area proposed to clear (GIS Database).

The proposed haul road corridor is located on the eastern side of the Goldfields Highway, and crosses three minor non-perennial drainage lines (GIS Database). These drainage lines are only likely to carry water following significant rainfall events.

The proposed haul road is approximately seven kilometres long. Approximately 1.2 kilometres of the haul road corridor (at the western end), passes through a C Class water reserve (R3689), vested in the Department of Water and Environmental Regulation. The water reserve covers a total area of approximately 570 hectares, the majority of which (approximately 476 hectares) is located on the western side of the highway surrounding a wetland area known as the Canegrass Swamp (a seasonal lake) and its associated creeklines. The most significant watercourse connecting to the Canegrass Swamp is located approximately 500 metres away from the application area, at its nearest point (GIS Database) and is unlikely to be affected by the proposed clearing. One minor drainage line crosses the western end of the haul road corridor within the water reserve (GIS Database).

The proposed haul road corridor intersects the smaller section of the water reserve which occurs on the eastern side of the Goldfields Highway, approximately 1.8 kilometres east of the Canegrass Swamp.

The proposed clearing is unlikely to have any significant impact on the water reserve, or the quality of surface or underground water.

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

Methodology GIS Database:
- Hydrography, Lakes
- 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 200 millimetres per year (CALM, 2002). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2002).

Temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing

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 CALM (2002)

GIS Database:
- Hydrography, lakes
- Hydrography, linear

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

Comments

The clearing permit application was advertised on 4 November 2019 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 are two registered native title claims (WC2017/001; WC2017/007) over the area under application (DPLH, 2020). 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). However, 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

Botanica (2017) Detailed Flora and Vegetation Survey, Chameleon Project. Report prepared for Shine Resources Pty Ltd, by Botanica Consulting, December 2017.

Botanica (2019) Targeted search for Conservation Significant flora/vegetation and Malleefowl: Chameleon Haul Road. Report prepared for Shine Resources Pty Ltd, by Botanica Consulting, October 2019.

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.

DBCA (2020) NatureMap: Mapping Western Australia's Biodiversity. Department of Biodiversity, Conservation and Attractions. https://naturemap.dbca.wa.gov.au/ (Accessed 20 January 2020).

DPLH (2020) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 17 January 2020).

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.

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.

Pringle, H.J.R., Van Vreeswyk, A.M.E., and Gilligan, S.A. (1994) An inventory and condition survey of rangelands in the north-eastern Goldfields, Western Australia. Technical Bulletin No. 87. Department of Agriculture, South Perth, Western Australia.

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	*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:

{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 (Specially Protected Fauna) Notice 2018*.

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.