

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8430/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: J & K Supplies (WA) Pty Ltd

1.3. Property details

Property: Mining Lease 70/690

Mining Lease 70/907

Local Government Area: Shire of Coorow

Colloquial name: Cockleshell Gully Road Sand Pit

1.4. Application

Clearing Area (ha) No. Trees Method of Clearing For the purpose of:

10 Mechanical Removal Mineral Production

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 16 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 association: 1031: Mosaic: Shrublands; hakea scrub-heath / Shrublands; dryandra heath (GIS Database).

Several flora and vegetation surveys have been conducted over the application area between October 1991 and September 2007. The following four vegetation associations were recorded within the application area (Green Head Sands, 2008):

- Vegetation Type 1: Low Kwongan heath over shallow white sands over gravel. Vegetation dominated by Proteaceae heath (> 50%) with emergent *Xanthorrhoea preissii* and no other overstorey.
- Vegetation Type 2: Banksia dominated low heath over shallow (1m) white sand. Banksia candolleana,
 B. attenuata and B. menziesii co-dominant and Allocasuarina humilis also common.
- Vegetation Type 3: Low heath dominated by Xanthorrhoea preissii on lateritic caprock and stony soils.
 Dryandra armata and Banksia sphaerocarpa subdominant.
- Vegetation Type 4: Low open woodland dominated by sparse Eucalyptus todtiana over 2m of grey white sands over gravel or clays.

Clearing Description

Cockleshell Gully Road Sand Pit.

J & K Supplies (WA) Pty Ltd proposes to clear up to 10 hectares of native vegetation within a boundary of approximately 72.75 hectares, for the purpose of mineral production. The project is located approximately 12 kilometres east of Green Head, within the Shire of Coorow.

Vegetation Condition

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

То

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

Comment

The vegetation condition was derived from aerial imagery and comments provided within the mining proposal (Green Head Sands, 2008).

The application area contains historical disturbance that has been present since before the implementation of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004. The Coorow Sand and Gravel Operation was approved by the former Department of Minerals and Energy (now Department of Mines, Industry Regulation and Safety (DMIRS)) under Notice of Intent (NOI) 870 on 30 April 1992. A subsequent NOI was approved by the Department of Minerals and Energy (now DMIRS) on 23 March 1994.

Two clearing permits (CPS 307/3 and 6068/1) have also been previously approved over the clearing permit application area and have since expired. CPS 307/3 authorised the clearing of up to 8.3 hectares and CPS 6068/1 authorised the clearing of up to six hectares.

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 may be at variance to this Principle

The application area is located within the Lesueur Sandplain subregion of the Geraldton Sandplains Interim Biogeographic Regionalisation for Australia bioregion (GIS Database). The Lesueur Sandplain is characterised by shrub-heaths rich in endemics occurring on a mosaic of lateritic mesas, sandplains, coastal sands and limestones as well as heath on lateralised sandplains along the subregions north-eastern margins (CALM, 2002). The Lesueur Sandplain subregion is recognised for its high level of biodiversity, and in particular floral diversity and endemism.

The area under application was on the former Register of National Estate (Mount Lesueur Area) for its natural significance. The applied area is north of and contiguous with, the Lesueur National Park with which it holds many ecological similarities and is known as an area of high biodiversity (Green Head Sands, 2008).

The local area (10 kilometre radius) retains approximately 44 percent native vegetation, of which approximately 60 percent is within Department of Biodiversity, Conservation and Attractions managed lands. There are eight records of Threatened flora species and 66 records of Priority flora species within a 10 kilometre radius of the proposed clearing (DBCA, 2019). Previous flora and vegetation surveys of the application area identified two Priority flora species (Pilbara Flora, 2008) both of which were delisted from the Priority flora list on the 29 January 2009. No other Threatened or Priority flora were recorded within the application area (Green Head Sands, 2008).

The vegetation under application falls within the breeding range of the endangered (Wildlife Conservation (Specially Protected Fauna) Notice 2018; *Environment Protection and Biodiversity Conservation Act, 1999*) Carnaby's cockatoo (*Calyptorhynchus latirostris*). Given this, the mapped and observed vegetation type and condition of the vegetation; the application area may contain feeding habitat for this species (Green Head Sands, 2008).

There is one Priority Ecological Community (PEC) within the local area. Due to its distance from the application area and lack of representative vegetation, it is not likely to be significantly impacted by the proposed clearing (Green Head Sands, 2008; GIS Database). The application area is likely to contain flora and fauna diversity similar to that of the Lesueur National Park (south of the application area) which is known as an area of high biodiversity.

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

Methodology

CALM (2002)

DBCA (2019)

Green Head Sands (2008)

Pilbara Flora (2008)

GIS Database:

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

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments Proposal may be at variance to this Principle

A brief fauna reconnaissance survey was conducted by Don Williams and Charles Newland during the flora mapping survey on 12 September 2007 (Green Head Sands, 2008). No unique fauna habitats, shelters, nesting hollows or fauna species were observed (Green Head Sands, 2008).

Fauna species listed as Threatened under the Biodiversity Conservation Act 2016 have been recorded in the local area (10 kilometre radius) (DBCA, 2019). These include *Calyptorhynchus latirostris* (Carnaby's Cockatoo), *Cyclodomorphus branchialis* (Gilled Slender Blue-tongue Skink) and *Leipoa ocellata* (Malleefowl).

The application area falls adjacent to the Lesueur National Park to the south and further native vegetation to the east. Any ground-dwelling fauna displaced by the proposed clearing are likely to relocate to these adjacent areas

There have been numerous sightings of Carnaby's Black-Cockatoo in the Jurien and Lesueur regions (DBCA, 2019; Green Head Sands, 2008). Carnaby's Black Cockatoo has been declining in range and abundance since European settlement because of loss of habitat. The species depends on both the heathlands for foraging and woodlands for nesting sites in hollow logs and shelter. Although not likely to contain roosting or nesting sites for Carnaby's cockatoos, the application area may contain feeding habitat given the mapped and observed vegetation type, condition of the vegetation and location within the defined breeding area (Green Head Sands, 2008).

As the application area may contain feeding habitat for Carnaby's cockatoo, the application may be at variance to this Principle. Revegetating the land to a pre-cleared state post mining is likely to limit the long term impact to this species and it is recommended that a revegetation condition be placed on the permit.

Methodology DBCA (2019)

Green Head Sands (2008)

GIS Database:

- Imagery
- Pre-European Vegetation
- Threatened Fauna

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

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

There are no known records of Threatened flora within the application area (GIS Database). Flora surveys of the application area did not record any species of Threatened flora (Green Head Sands, 2008).

The vegetation associations within the application area are common and widespread within the region (Green Head Sands, 2008; 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 Green Head Sands (2008)

GIS Database:

- Pre-European Vegetation
- Threatened and Priority Flora

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

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

There are no known Threatened Ecological Communities (TECs) located within or in close proximity to the application area (GIS Database).

A flora and vegetation survey of the application area did not identify any TECs (Green Head Sands, 2008).

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

Methodology Green Head Sands (2008)

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 likely to be at variance to this Principle

The application area falls within the Geraldton Sandplains Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). Approximately 44.8% of the pre-European vegetation still exists in the IBRA Geraldton Sandplains Bioregion (Government of Western Australia, 2019). The application

area is broadly mapped as Beard vegetation association 1031: Mosaic: Shrublands; hakea scrub-heath / Shrublands; dryandra heath (GIS Database). Approximately 32.9% of the pre-European extent of this vegetation association remains uncleared at the state level and approximately 34.48% remains at the bioregional level (Government of Western Australia, 2019).

Given the condition of the vegetation to be cleared and the amount of vegetation remaining in the local area and subregion, the vegetation proposed to be cleared is not considered to represent a remnant within an extensively cleared area.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DBCA managed lands
IBRA Bioregion – Geraldton Sandplains	3,136,038	1,404,424	~44.78	Depleted	59.99
Beard vegetation associations – WA					
1031	269,491	88,668	~32.9	Depleted	42.66
Beard vegetation associations – Geraldton Sandplains Bioregion					
1031	241,350	83,217	~34.48	Depleted	44.52
Beard veg assoc Lesueur Sandplain					
1031	241,350	82,217	~ 34.48	Depleted	~ 44.52

^{*} Government of Western Australia (2019)

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

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

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

Methodology

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 the same as previously granted (now expired) permit CPS 6068/1 (GIS Database). Advice from the Commissioner of Soil and Land Conservation for CPS 6068/1 concluded that the main land degradation risk associated with vegetation clearing in the area is wind erosion, based on the presence of loose sandy soils (Commissioner of Soil and Land Conservation, 2006 cited in Department of Environment Regulation, 2014).

Based on the above, the proposed clearing may be at variance to this Principle. Potential wind erosion impacts resulting from the proposed clearing may be minimised by staged clearing and rehabilitation conditions.

Methodology Department of Environment Regulation (2014)

GIS Database:

^{**} Department of Natural Resources and Environment (2002)

- Clearing Regulations - Instruments.

(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 may be at variance to this Principle

There are no conservation areas intercepting the application area. The nearest DBCA (formerly DPaW) managed land is the Lesueur National Park which is located approximately 50 metres south of the application area (GIS Database). Given the close proximity, the proposed clearing may increase edge effects such as weed invasion, increased drying of surface soils and increase the potential for the introduction of dieback, potentially impacting on the environmental values of the National Park.

Based on the above, the proposed clearing may be at variance to this Principle. Potential impacts to Lesueur National Park may be mitigated by conditions requiring weed and dieback management, staged clearing and rehabilitation.

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). 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.

The proposed clearing is unlikely to cause deterioration in the quality of underground water.

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 temperate, with a low average rainfall of approximately 549 millimetres per year (BoM, 2019). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall.

There are no permanent watercourses or waterbodies within the application area and 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

BoM (2019)

GIS Database:

- Hydrographic Catchments Catchments
- Hydrography, linear

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

Comments

The clearing permit application was advertised on 1 April 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 native title claims over the area under application (DPLH, 2019). These claims have been registered with the National Native Title 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, 2019). 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 (2019)

4. References

BoM (2019) Bureau of Meteorology Website – Climate Data Online, Jurien Bay. Bureau of Meteorology. http://www.bom.gov.au/climate/data/ (Accessed 2 December 2019).

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

DBCA (2019) NatureMap, Mapping Western Australia's Biodiversity. Department of Biodiversity, Conservation and Attractions. https://naturemap.dbca.wa.gov.au/default.aspx (Accessed 2 December 2019).

Department of Environment Regulation (2014) Clearing Permit Decision Report for CPS 6068/1, Department of Environment Regulation, Western Australia.

DPLH (2019) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 2 December 2019).

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

Green Head Sands (2008) Mining Proposal and Environmental Impact Information for the Expansion of the Cockleshell Gully Road Sand Pit M70/690 and M70/907. Unpublished report prepared for Green Head Sands by Charles Newland, July 2008

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

Pilbara Flora (2008) CPS 307/1 Application for an Amendment document prepared by Pilbara Flora on behalf of Greenhead Sands Pty Ltd, 2008.

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)

DoEEDepartment of the Environment and Energy, Australian GovernmentDERDepartment of Environment Regulation, Western Australia (now DWER)DMIRSDepartment of Mines, Industry Regulation and Safety, Western AustraliaDMPDepartment 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 <u>Priority species:</u>

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.