Government of **Western Australia**
Department of **Mines and Petroleum**

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 6853/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Blackham Resources Limited**

1.3. Property details

Property: Mining Leases 53/34, 53/41, 53/52, 53/53, 53/54, 53/188, 53/955
Miscellaneous Licences 53/30, 53/140

Local Government Area: Shire of Wiluna
Colloquial name: Matilda Gold Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 21 January 2016

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

Beard vegetation associations have been mapped for the whole of Western Australia. Three Beard vegetation associations are located within the application area (GIS Database):

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

39: Shrublands; mulga scrub

561: Succulent steppe with low woodland; mulga over saltbush

A level 1 flora and vegetation survey was undertaken within the application area during August 2015 by Animal Plant Mineral Pty Ltd (Animal Plant Mineral, 2015). A total of 21 vegetation communities were identified:

mFLPL1: *Tecticornia disarticulata* sparse chenopod shrubs

mFP10: *Acacia aneura* (*Acacia incurvaneura*) mid-dense tall shrubs

mFP11: *Acacia aneura* mid-dense tall shrubs over *Eragrostis eriopoda (Paspalidium basicladum*) mid-dense tussock grasses

mFP12: *Acacia aneura* mid-dense tall shrubs over *Aristida contorta* mid-dense tussock grass

mFP13: *Acacia aneura* mid-dense tall shrubs over *Eremophila pantonii* sparse shrubs

mFP14: *Acacia aneura* mid-dense tall shrubs over *Eremophila forrestii* subsp. *forrestii* (*Eremophila congesta*) sparse shrubs

mFP15: *Acacia aneura* sparse tall shrubs over *Eremophila congesta* very sparse shrubs over *Monachather paradoxa* very sparse tussock grass

mFP16: *Aristida contorta* very spare tussock grasses

mFP17: *Acacia aneura* very sparse tall shrubs over *Monachather paradoxa* very sparse tussock grass

mFP18: *Acacia aneura* very sparse tall shrubs over *Aristida contorta* isolated tussock grass

mFP19: *Acacia incurvaneura* very sparse tall shrubs over *Senna glaucifolia* very sparse shrubs over *Aristida contorta* mid-dense tussock grass

mFP20: *Acacia incurvaneura* and *Acacia aneura* mid-dense tall shrubs over occasional *Senna glaucifolia* very sparse shrubs over *Maireana georgei* very sparse chonopod shrubs over *Aristida contorta* mid-dense tussock grass

mFP21: *Senna* sp. Meekatharra mid-dense shrubs over *Maireana melanocoma* mid-dense chenopod shrubs.

mFP22: *Acacia incurvaneura* mid-dense tall shrubs over *Eremophila galeata* very sparse shrubs

mFP23: *Acacia incurvaneura* sparse tall shrubs over *Eremophila grasbyi* very sparse shrubs *over Monachather paradoxa* very sparse tussock grass

mFP24: *Acacia incurvaneura* sparse tall shrubs over *Eremophila latrobei* subsp. *latrobei* very sparse shrubs

mFP25: *Eremophila eriocalyx* very sparse shrubs over *Tecticornia* sp. halocnemoides group sparse chenopod shrubs

mFP26: *Acacia pruinocarpa* very sparse trees over *Acacia aneura* sparse tall shrubs

mFP27: *Acacia quadrimarginea* (*Acacia pruinocarpa*) very sparse tall shrubs over *Eremophila congesta*, *Eremophila eriocalyx* very sparse shrubs

mFP9: *Acacia aneura* dense tall shrubs over *Monachather paradoxa* very sparse tussock grass

mHC2: *Acacia caesaneura* mid-dense tall shrubs over *Gunniopsis quadrangularis* low very sparse shrubs

mHC3: *Acacia quadrimarginea* and *Acacia aneura* sparse tall shrubs over *Eremophila forrestii* subsp. *forrestii* very sparse shrubs

mMD3: *Acacia craspedocarpa* and *Acacia aptaneura* dense tall shrubs over occasional *Senna artemisioides* very sparse shrubs over *Eragrostis eriopoda* mid dense tussock grass

mMD4: *Acacia aptaneura* mid-dense tall shrubs over *Ptilotus obovatus* very sparse shrubs over *Aristida contorta* mid-dense tussock grasses

mSB1: *Acacia* aff *incurvaneura* very sparse tall shrubs over *Aristida contorta* mid-dense tussock grasses

Clearing Description Matilda Gold Project
Blackham Resources Limited proposes to clear up to 300 hectares of native vegetation within a total boundary of 1,630 hectares, for the purpose of mineral production. The project is located approximately 20 kilometres south of Wiluna in the Shire of Wiluna.

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

To:

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

Comment The proposed activity involves the upgrade of an access road to the Mt Henry Project Area.

Vegetation condition was derived from a flora and vegetation survey conducted by Animal Plant Mineral Pty Ltd (2015).

1. 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 Eastern Murchison subregion of the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (GIS Database). The Eastern Murchison subregion is characterised by broad plains of red-brown soils and breakaway complexes as well as red sand plains. The vegetation of this subregion is dominated by Mulga Woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and Halosarcia shrublands (CALM, 2002).

The application area covers 1630 hectares. Within this area, 426 hectares has been disturbed due to previous mining activities. Within the disturbed area, 21 hectares has undergone rehabilitation (Animal Plant Mineral, 2015). Approval is being sought to clear up to 300 hectares of native vegetation within the application area for the purposes of mineral extraction and associated activities (Animal Plant Mineral, 2015). Blackham Resources Limited advises that existing disturbed areas are being utilised to reduce new ground disturbance requirements (Animal Plant Mineral, 2015).

A total of 25 vegetation communities were identified during a flora and vegetation survey of the application area (Animal Plant Mineral, 2015). Of these 25 vegetation communities, 21 were dominated by mulga tall shrubs. The remaining plant communities consisted of one grassland community and two shrubland communities (Animal Plant Mineral, 2015). The vegetation communities that were identified are well represented outside of the clearing permit application area (Animal Plant Mineral, 2015).

No Threatened Ecological Communities (TEC's) are known to occur within the application area (GIS Database). No TECs were identified during a flora and vegetation survey (Animal Plant Mineral, 2015). Several Priority Ecological Communities (PEC's) surround the clearing permit application area (GIS Database). Field investigations discounted the occurrence of any PEC's within the application area (Animal Plant Mineral, 2015).

One Priority 1 and one Priority 4 flora species were recorded during a flora and vegetation survey of the application area (Animal Plant Mineral, 2015):

- *Eremophilia congesta* – Priority 1 as listed by DPaW
- *Eremophilia pungens* – Priority 4 as listed by DPaW

Only two individuals of *Eremophilia pungens* were recorded within the flora and vegetation survey (Animal Plant Mineral, 2015). *Eremophilia pungens* is widespread over Wiluna and surrounding areas (DPaW, 2015). It is unlikely that the proposed clearing will have a significant impact on the population of *Eremophilia pungens.*

Several individuals of *Eremophila congesta* were recorded within the application area during a flora and vegetation survey. The survey indicated *Eremophilia congesta* is likely to be isolated to Wiluna region and surrounding areas (Animal Plant Mineral, 2015). However, it is important to note the population is widespread throughout this region as it appears in a range of vegetation communities, mainly associated with Mulga shrublands (Animal Plant Mineral, 2015). The clearing of *Eremophilia congesta* should be avoided were possible. Potential impacts to *Eremophilia congesta* can be managed through the implementation of a flora management condition.

One introduced flora (weed) species; *Cuscuta planiflora* was recorded within the Matlida Gold Survey area during a flora and vegetation survey (Animal Plant Mineral, 2015). Based on available datasets the weed species *Carrichtera annua* and *Cenchrus cilliaris* may also occur within the survey area however they were not recorded during the vegetation and flora survey (Animal Plant Mineral, 2015; DPaW, 2015). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

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

Methodology

Animal Plant Mineral (2015)
CALM (2002)
DPaW (2015)
GIS Database:
- IBRA WA (Regions - Sub Regions)
- Pre-European vegetation
- Threatened Ecological Sites Buffered

(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 flora and vegetation survey undertaken over the clearing permit application area identified six broad fauna habitats (Animal Plant Mineral, 2015):

- Open Mulga shrubland on stony slopes and plains;
- Mid dense Mulga shrubland on stony slopes and plains;
- Low breakaways and rocky outcrops;
- Drainage tracts and associated fringing vegetation;
- Chenopod plains; and
- Disturbed areas

Excluding disturbed areas, the fauna habitats identified within the vegetation survey are considered common and well represented within the surrounding region (Animal Plant Mineral, 2015). Therefore the habitat listed above is unlikely to be significant habitat for fauna within and surrounding the application area.

Based on available datasets up to 245 fauna species have the potential to occur within a 40 kilometre radius of the application area, consisting of seven amphibians, 75 reptiles, 41 mammals and 122 birds (DPaW, 2015). Of these species, 23 are of conservation significance comprising of 18 birds, one reptile and four mammals. Based on habitat preference, four conservation significant species are considered likely to occur within the application area itself (Animal Plant Mineral, 2015):

- Rainbow Bee-eater – Schedule 5 Migratory as listed by DPaW
- Fork-tailed swift – Schedule 5 Migratory as listed by DPaW
- Peregrine Falcon – Schedule 7 as listed by DPaW
- The Long-tailed Dunnart – Priority 4 as listed by DPaW

The Rainbow Bee-eater is listed as a migratory species (Animal Plant Mineral, 2015). The species occurs throughout Australia with the exception of Tasmania (Animal Plant Mineral, 2015). The Rainbow Bee-eater mainly occurs in open woodland and shrubland and nests in a burrow which is excavated into flat or sloping ground, road cuttings, creek banks or quarry pits (Animal Plant Mineral, 2015). Animal Plant Mineral (2015) identified the potential for the species to excavate a nest in pre-existing mining pits located within the survey area; however no individuals were recorded during a fauna survey. Given that the Rainbow Bee-eater has a

large range and a large population that appears to be stable (DPaW, 2015), significant impacts to this species as a result of the proposed clearing are considered unlikely.

The Peregrine Falcon and Fork-tailed Swift are both migratory species and are not confined to a specific habitat. They can be found everywhere from woodlands to open grasslands and coastal cliffs (DPaW, 2015) and therefore are unlikely to be reliant on vegetation within the application area.

The Long-tailed Dunnart was recorded in traps during several surveys surrounding the clearing permit application area. Suitable arid rocky habitat occurs within the application area however it is considered to be very minimal (Animal Plant Mineral, 2015). Based on proposed mine plans provided to the Department of Mines and Petroleum by Blackham Resources Limited, it appears only a limited section of suitable habitat (if any) will be influenced by the proposed clearing (Animal Plant Mineral, 2015). There is suitable habitat surrounding the application area and the Long-tailed Dunnart has a relatively good distribution across Western Australia and the Northern Territory (Animal Plant Mineral, 2015). Given a relatively wide distribution and the presence of suitable habitat in the surrounding area, the proposed clearing is unlikely to pose a threat to the Long-tailed Dunnart.

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

Methodology Animal Plant Mineral (2015)
DPaW (2015)

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

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

No species of Threatened flora are known to occur within or in close proximity to, the application area (GIS Database; DPaW, 2015).

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

Methodology DPaW (2015)
GIS Database (2015)
-Threatened and Prioirty Flora List

(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 at variance to this Principle**

No Threatened Ecological Communities (TECs) are known to occur within the application area (GIS Database). A flora and vegetation survey of the application area did not identify the presence of any TECs (Animal Plant Mineral, 2015).

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

Methodology Animal Plant Mineral (2015)
GIS Database (2015)
- Threatened and Priority Ecological Communities Buffers
- Threatened and Priority Ecological Communities Boundaries

(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 occurs within the Murchison Interim Biogeographic Regionalisation of Australia (IBRA) bioregion, in which approximately 99.7% of the pre-European vegetation remains (see table below) (GIS Database; Government of Western Australia, 2014).

The vegetation within the application area has been mapped as Beard vegetation associations 18, 39 and 561 (GIS Database). All three beard vegetation associations are well represented at both a state and bioregional level (Government of Western Australia, 2014). Given the amount of vegetation remaining in the local area and bioregion, 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 DPaW Managed Lands
IBRA Bioregion - Murchison	28,120,587	28,044,823	99.7	Least Concern	~7.7
Beard vegetation associations - State					
18	19,892,304	19,843,727	99.7	Least Concern	~ 6.3
39	6,613,569	6,602,580	99.8	Least Concern	~ 12.1
561	5,092	4,579	89.9	Least Concern	~ 0.0
Beard vegetation associations - Bioregion					
18	12,403,172	12,363,252	99.7	Least Concern	~ 5.0
39	1,148,400	1,138,064	99.1	Least Concern	~ 3.6
561	5,092	4,579	89.9	Least Concern	~ 0.0

* Government of Western Australia (2014)
** 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 (2014)
GIS Database:
- IBRA WA (regions - subregions)
- 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

No permanent water bodies or wetlands occur within the application area (GIS Database)

Drainage lines are present within the application area. These drainage lines are ephermal, flowing only after major rainfall events (GIS Database; Animal Plant Mineral, 2015)

It is possible that the proposal may result in the clearing of riparian vegetation. Where possible, the clearing of riparian vegetation should be avoided. Potential impacts to vegetation growing in association with a watercourse may be minimised by the implementation of a watercourse management condition.
Blackham Resources Limited advises that "where possible, ephermal creeks and associated drainage lines will be avoided during development" (Animal Plant Mineral, 2015)

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

Methodology Animal Plant Mineral (2015)
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

Two soil types have been mapped within the application area (GIS Database; Northcote et al 1968):

My50: Broad plains with a scatter of surface gravels; chief soils are shallow neutral red earths and shallow earthy loams in intimate micro-association. They are underlain by a red-brown hardpan at depth of 6-30 inches (Northcote et al 1968).

Fa7: Greenstone hills and low ranges with some slate and basalt: dominant soils are shallow stony earthy loams (Um5.51) on the steep slopes while (Um5.3) and (Uc5.21) overlying red-brown hardpan occur on the stony pediments (Northcote et al 1968).

These soils generally have a low susceptibility to soil erosion (Animal Plant Mineral, 2015). However, given the large extent of the proposed clearing (300 hectares) some erosion may result. Potential impacts associated with erosion may be minimised by a staged clearing condition.

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

Methodology Animal Plant Mineral (2015)
Northcote et al (1968)
GIS Database (2015)
-Soils, Statewide

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

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

There are no conservation areas located within or adjacent to the application area (GIS Database). The nearest DPaW managed land is Wanjarri Nature Reserve located approximately 75 kilometres southeast of the application area (GIS Database).

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

Methodology GIS Database:
-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 clearing permit application area (GIS Database). There are no permanent watercourses or wetlands within the application area (GIS Database).

The application area lies within the Lake Carey catchment (GIS Database). Groundwater salinity within the application area is considered to be brackish (1000-3000 milligrams/Litre Total Dissolved solids) (GIS Database). The proposed clearing of 300 hectares of native vegetation within a catchment area of approximately 11,378,092 hectares (GIS Database) is unlikely to result in significant impacts on groundwater quality.

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

Methodology GIS Database:
- Groundwater Salinity, Satewide
- Hydrography, linear
- Public Drinking Water Source Areas (PDWSAs)
- RIWI Act, Groundwater 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, receiving a low average rainfall of approximately 250 millimetres per year, with evaporation exceeding rainfall (BoM, 2015). There are no permanent water courses or water bodies within the application area (GIS Database).

The proposed clearing is located within the Lake Carey Catchment which has an area of approximately 11, 378, 092 hectares (GIS Database). Extensive clearing of native vegetation may increase the potential for small scale, localised flooding events. However given the climate of the region, undulating topography, and the amount of vegetation in the surrounding area, the proposed clearing is unlikely to result in a significant increase in the incidence of flooding (GIS Database; Animal Plant Mineral, 2015).

The project incorporates flood management techniques to redirect surface water flows and drainage design will incorporate natural drainage lines preventing the pooling of surface water run-off (Animal Plant Mineral, 2015)

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

Methodology BoM (2015)
CALM (2002)
GIS Database (2015)
- Hydrographic Catchments – Catchments

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

Comments

There are two native title claims (WC1999/024 and WC2007/003) over the application area (GIS Database; DAA, 2015). These claims have been registered with the Native Title Tribunal on behalf of the claimant group. 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 several registered Sites of Aboriginal Significance located in the area applied to clear (GIS Database). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Sites of Aboriginal Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation, the Department of Parks and Wildlife and the Department of Water, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The clearing permit application was advertised on 7 December 2015 by the Department of Mines and Petroleum inviting submissions from the public. There were no submission was received.

Methodology

DAA (2015)
GIS Database:
- Aboriginal Sites of Significance

2. References

Animal Plant Mineral (2015) Vegetation Clearing Permit Application, Matilda Gold Project, Support Information for Matilda Mine Site Native Vegetation Clearing (Purpose) Permit Application, October 2015.

BoM (2015) Climate Statistics for Australian Locations. A Search for Climate Statistics for Wiluna, Australian Government Bureau of Meteorology. <http://www.bom.gov.au>

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

DAA (2015) Aboriginal Heritage Inquiry System, Department of Aboriginal Affairs, Perth, Western Australia < http://maps.dia.wa.gov.au>

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.

DPaW (2015) NatureMap, Department of Parks and Wildlife <http://naturemap.dec.wa.gov.au>.

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

Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Environment and Conservation, Perth.

Northcote, K. H. with Beckmann G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

3. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DPaW and DER)
DER	Department of Environment Regulation, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DRF	Declared Rare Flora
DotE	Department of the Environment, Australian Government
DoW	Department of Water, Western Australia
DPaW	Department of Parks and Wildlife, Western Australia
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DotE)
EPA	Environmental Protection Authority, Western Australia
EP Act	*Environmental Protection Act 1986*, Western Australia
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	*Rights in Water and Irrigation Act 1914*, Western Australia
TEC	Threatened Ecological Community

Definitions:

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

T **Threatened species:**
Published as Specially Protected under the *Wildlife Conservation Act 1950,* listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

Threatened fauna is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act.

Threatened flora is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the Wildlife Conservation Act.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR **Critically endangered species**
Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

EN **Endangered species**
Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

VU **Vulnerable species**
Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

EX **Presumed extinct species**
Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.

IA **Migratory birds protected under an international agreement**
Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.

CD **Conservation dependent fauna**
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.

OS **Other specially protected fauna**
Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.

P **Priority species**
Species which are poorly known; or
Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 **Priority One - Poorly-known species:**
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 **Priority Two - Poorly-known species:**
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 **Priority Three - Poorly-known species:**
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

P4 **Priority Four - Rare, Near Threatened and other species in need of monitoring:**
(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.
(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Principles for clearing native vegetation:

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

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

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

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

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area tha has been extensively cleared.

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

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

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

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

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, th incidence or intensity of flooding.