



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5639/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Robe River Limited

1.3. Property details

Property: Iron Ore (Robe River) Agreement Act 1964, Mineral Lease 248SA (AML 70/248)
Local Government Area: Shire of Ashburton
Colloquial name: Robe Valley Mineral Exploration

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
10		Mechanical	Mineral Exploration

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 18 July 2013

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. One Beard association is located within the application area (Government of Western Australia, 2013: GIS Database)

609: Mosaic of: hummock grasslands, open low tree steppe; bloodwood with sparse kanji shrubs over soft spinifex; and hummock grasslands, open low tree steppe; snappy gum over *Triodia wiseana* on a lateritic crust.

A flora and vegetation survey was conducted over the application area between 4 and 10 December 2012 by Ecologia (2013). The application area comprised the following vegetation types:

AcTspRTw: *Acacia citrinoviridis* shrubland over *Triodia* sp. Robe River (M.E. Trudgen et al. MET 12367) and *Triodia wiseana* hummock grassland;

AoTw: *Acacia orthocarpa* shrubland over *Triodia wiseana* hummock grassland;

Te: *Triodia epactia* hummock grassland; and

Tw: *Triodia wiseana* hummock grassland.

Clearing Description Robe River Limited (Robe River) has applied to clear up to 10 hectares of native vegetation within an application area of approximately 370 hectares, for the purpose of mineral exploration. The clearing will be for drill pads and access tracks. Robe River intends on utilising existing cleared or disturbed areas where practicable.

Vegetation will be cleared by dozers with blade up where safe to do so.

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

To

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

Comment The application area is located within the Pilbara region of Western Australia and is situated approximately 4 kilometres south Pannawonica.

The vegetation condition was assessed by botanists from Ecologia (2013).

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 occurs within the Hamersley (PIL3) Interim Biogeographic Regionalisation of Australia (IBRA) subregion (GIS Database). This subregion is generally described as mulga low woodland over bunch grasses on fine textured soils in valley floors and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges (CALM, 2002).

A flora and vegetation survey of the application area was conducted by Ecologia (2013) in December 2012. The survey identified 129 flora taxa from 38 families occurring within the application area (Ecologia, 2013). Ecologia (2013) does not consider the overall species richness to be low, however does note that species richness within the study area is lower compared to similar surveys conducted in the region.

No Threatened Flora or Threatened Ecological Communities were recorded within the application area (Ecologia, 2013; GIS Database).

The Priority Flora species *Triodia* sp. Robe River (Priority 3) was recorded along the rocky edges and upper slopes of the mesa (Ecologia, 2013). Approximately 15,489 individuals of the species were found, with an additional 13,785 recorded in adjacent areas outside of the application area (Ecologia, 2013). Previous survey work has recorded approximately 15,000 individuals within 100 metres of the application area, and a further 1,400 individuals 500 metres south (Ecologia, 2013).

This species is associated with the '*Triodia* sp. Robe River assemblages of mesas of the Robe Valley area (Pilbara)' Priority Ecological Community (PEC). Within the application area, vegetation types AcTspRTw and AoTw are representative of this PEC (Ecologia, 2013). These vegetation types were found predominantly along the upper slopes and peaks of the mesas where there has not been previous disturbance (Ecologia, 2013). Robe River has advised that clearing will mostly be conducted on the mesa tops and in previously disturbed areas where possible (Ecologia, 2013). Minor clearing will be undertaken along the slopes of the mesas for track maintenance (Ecologia, 2013). Given the small scale of the clearing within a much larger application area, the proposed clearing is not considered to significantly impact this species or PEC.

There are occurrences of the PEC 'Subterranean invertebrate communities of mesas in the Robe Valley region' within close proximity application area (GIS Database). The habitat of the troglobitic faunal communities is the humidified pisolitic strata (DEC, 2010) and this subterranean habitat is unlikely to be affected by the small amount (10 hectares) of clearing above ground.

A total of five introduced flora species were recorded during the flora survey (Ecologia, 2013). 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.

A fauna survey over the application area recorded a total of four habitat types (Ecologia, 2013). The review of previous fauna surveys over the area by Ecologia (2013) has resulted in a total of 413 native vertebrate species potentially occurring within the study area. The fauna survey conducted by Ecologia (2012) recorded two potential Short Range Endemic species (SRE) occurring adjacent to and possibly within the application area. Eight conservation significant fauna species were either recorded or had a high probability of occurring within the application area (Ecologia, 2013).

The application area may represent a relatively high level of biodiversity. However the majority of the application area has been disturbed from previous mining activities. Robe River has advised that clearing will be mostly conducted within these disturbed areas and any clearing within relatively diverse areas, such as mesa slopes and rocky breakaways will be for track maintenance only (Ecologia, 2013).

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

Methodology	CALM (2002) Ecologia (2012) Ecologia (2013) DEC (2010) Government of Western Australia (2013) GIS Database: - IBRA WA (regions – subregions) - Threatened and Priority Flora - Threatened Ecological Sites Buffered
Officer	Ryan Hepworth

(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 level 2 terrestrial vertebrate and invertebrate survey was undertaken in September 2012 by Ecologia (2012).

Four fauna habitats were identified within the study area (Ecologia, 2013):

- Mesa top: comprise the elevated flat and rocky plains. Highly disturbed from previous mining activities;
- Rocky breakaway: interface between the mesa tops and mesa slopes. Sparsely vegetated and comprised of numerous stones and boulders;
- Stony hills and slopes: These areas consist of the mid to upper mesa slopes and hills; and
- Stony shrubland plain: relatively flat and consist of shrublands over spinifex hummock grasses.

The study area has been highly disturbed from previous mining activities, with 62.5% of the area considered cleared (Ecologia, 2013). Mesa top habitat comprises 35.1% of the study area which has also been heavily disturbed from mining activities. The remaining 2.4% of the study area contains mesa edges, slopes and plains which can be considered to have the highest habitat value in the application area. These types of habitats are associated with the Robe and Rocklea Land Systems (Ecologia, 2013) and although not confined to this locality, they are the preferred habitat types for some conservation significant fauna.

Three conservation significant fauna species were recorded within the application area (Ecologia, 2013). The Northern Quoll (*Dasyurus hallucatus*) (Schedule 1) has been recorded in the study area and in adjacent areas (Ecologia, 2013). These records are supported by numerous previous records in the area, with 100 recent records within 60 kilometres of the study area (DEC, 2013). There is potential denning habitat within the application area in the form of rocky breakaways and stony hills (Ecologia, 2013). However, this habitat only makes up 2.3% of the application area (Ecologia, 2013). Further, Robe River has advised that clearing will be primarily conducted on the mesa tops, which has not been identified as potential habitat (Ecologia, 2013). The impact to this species is therefore considered to be minimal.

The Pilbara Leaf-nosed Bat (*Rhinioncteris aurantius*) (Schedule 1) was recorded in and adjacent to the application area (Ecologia, 2013). Calls were recorded during the night suggesting the bats were foraging away from their roost (Ecologia, 2013). Rocky breakaways were identified as being suitable for foraging but no roosting caves were found in the application area (Ecologia, 2013). Given the low proportion of habitat within the application area and minimal disturbance, the proposed clearing is not likely to impact this species.

Multiple surveys have recorded the Rainbow Bee-eater (*Merops ornatus*) (Schedule 3) within the application area (Ecologia, 2012; 2013). There is extensive habitat available to the Rainbow Bee-eater in the region therefore the proposed clearing is unlikely to impact on the species.

Other conservation significant fauna species have the potential to occur in the application area (Ecologia, 2013); however based on their preferred habitat and range, the proposed clearing is not likely to have a significant impact.

Two SRE species; *Barrowdillo* sp. Nov. 5 and *Lychas* sp. Nov. were recorded adjacent to the application area (Ecologia, 2013). Ecologia advise that it is unknown whether these species occur within the application area. The preferred habitat for these species is leaf litter on rocky areas, or occasionally under decaying logs or tree bark (Ecologia, 2013). The mesa tops, where the majority of the clearing will be undertaken, contain some suitable habitat though leaf litter is sparse (Ecologia, 2013). Robe River proposes to clear with a raised blade where practicable, which will reduce the impact on soil and leaf litter (Ecologia, 2013). Based on this and the small scale of clearing and availability of habitat in the rocky areas around the mesa top, the proposed clearing is unlikely to significantly impact this species.

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

Methodology DEC (2013)
Ecologia (2012)
Ecologia (2013)

Officer Ryan Hepworth

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

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

According to available databases there are no known records of Threatened Flora within the application area (GIS Database).

A flora and vegetation survey was conducted over the application area between 4 and 10 December 2012 by Ecologia (2013). No Threatened Flora species were recorded during the survey (Ecologia, 2013). Ecologia did note that *Lepidium catapycon* and *Thyptomeme wittweri* were recorded in their database search, but were considered unlikely to occur within the study area (Ecologia, 2013)

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

Methodology Ecologia (2013)
GIS Database:
- Threatened and Priority Flora
Officer Ryan Hepworth

(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

A search of available databases revealed there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest recorded TEC, Themeda Grasslands, is located approximately 115 kilometres south-east of the application area (GIS Database).

No TECs were identified during the flora and vegetation survey conducted by Ecologia (2013).

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

Methodology Ecologia (2013)
GIS Database:
- Threatened Ecological Sites Buffered
Officer Ryan Hepworth

(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 is located within the Pilbara Interim Biogeographical Regionalisation of Australia (IBRA) bioregion (GIS Database) of which approximately 99.5% of pre-European vegetation remains (Government of Western Australia, 2013).

The vegetation within the application area has been broadly mapped as Beard vegetation association (GIS Database):

609: Mosaic of: hummock grasslands, open low tree steppe; bloodwood with sparse kanji shrubs over soft spinifex; and hummock grasslands, open low tree steppe; snappy gum over *Triodia wiseana* on a lateritic crust.

Approximately 98% of this Beard vegetation association remains at the state and bioregional levels (Government of Western, 2013).

The vegetation under application is not considered a remnant on a regional scale.

At a local context, Ecologia reports that vast areas of the application area have been previously disturbed by mining activities (Ecologia, 2013). The subject vegetation does not form a remnant or linkage between significant vegetation.

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

Methodology Ecologia (2013)
Government of Western Australia (2013)
GIS Database:
- IBRA WA (Regions – Subregions)
- Pre-European Vegetation
Officer Ryan Hepworth

(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 mapped within the application area (GIS Database).

Robe River is in close proximity to the application area however no vegetation types have been mapped as in association with drainage lines or watercourses (Ecologia, 2013).

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

Methodology Ecologia (2013)
GIS Database:

Officer - Hydrography, Linear
Ryan Hepworth

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

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

The application area is within the Robe Land System (GIS Database). The Robe Land System is characterised by low plateaux, mesas and buttes of limonites supporting soft spinifex (and occasionally hard spinifex) grasslands (Vreeswyk et al., 2004). The system is not generally susceptible to degradation or erosion (Vreeswyk et al., 2004).

Robe River has applied to clear 10 hectares within an application area totalling 370 hectares. Disturbance will be for exploration activities using machinery with the blade up where practicable to minimise clearing (Ecologia, 2013). Most of the application area has been previously disturbed by mining activities (Ecologia, 2013), and the proposed clearing of 10 hectares is unlikely to cause further appreciable land degradation.

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

Methodology Ecologia (2013)
Van Vreeswyk (2004)
GIS Database:
- Rangeland Land System Units

Officer Ryan Hepworth

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

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

The proposed clearing is not located within a conservation reserve (GIS Database). The nearest conservation area is Cane River Conservation Park, which is located approximately 53 kilometres south-west 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:
- DEC Tenure

Officer Ryan Hepworth

(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 watercourses or wetlands within the application area (GIS Database). Robe River is the major drainage feature in the locality and is in close proximity to the application area, less than 100 metres in some parts (GIS Database). The proposed clearing is almost entirely confined to the mesa tops and upper slopes and is unlikely to cause deterioration in quality of surface or underground water.

According to available datasets the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). The nearest PDWSA is the Millstream Water Reserve, which is approximately 50 kilometres east of the application area (GIS Database). Given the distance between the two, the proposed clearing is unlikely to affect the water quality of the reserve.

Base 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 (PDWSAs)

Officer Ryan Hepworth

(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 application area experiences a semi-desert tropical climate with mainly summer rainfall associated with cyclonic or thunderstorm events (CALM, 2002). The annual rainfall recorded at Pannawonica weather station is 403.1 millimetres (BoM, 2013). The relatively small area of proposed clearing compared with the overall catchment size (GIS Database) is not likely to cause or exacerbate the incidence or intensity of flooding.

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

Methodology BoM (2013)
CALM (2002)
GIS Database:
- Hydrographic Catchments - Catchments

Officer Ryan Hepworth

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

There is one Native Title Claim (WC99/12) over the area under application (GIS Database). This claim has been registered with the National 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 numerous registered Aboriginal Sites of Significance within the application area (GIS Database). 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 Environment Regulation (formerly the Department of Environment and Conservation) 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 24 June 2013 inviting submissions from the public. There were no submissions received.

Methodology GIS Database:
- Aboriginal Site of Significance
- Native Title Claims – Registered with the NNTT

Officer Ryan Hepworth

4. References

- BoM (2013) Climate Statistics for Australian Locations. A Search for Climate Statistics for Pannawonica, Australian Government Bureau of Meteorology, Viewed 2 July 2013, <<http://www.bom.gov.au/climate/data/>>.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Department of Conservation and Land Management.
- DEC (2010) Priority Ecological Communities for Western Australia. Species and Communities Branch, Department of Environment and Conservation, December 2010.
- DEC (2013) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. <http://naturemap.dec.wa.gov.au/default.aspx> (date accessed 3 July 2013).
- Ecologia Environment (2012) Middle Robe and East Deepdale Biological Survey. Unpublished report for Rio Tinto Ltd.
- Ecologia Environment (2013) Deepdale East Mesa Drilling Program Native Vegetation Clearing Survey. Unpublished report for Rio Tinto Ltd.
- Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) Technical Bulletin - An Inventory and Condition Survey of the Pilbara Region, Western Australia, No. 92. Department of Agriculture, Government of Western Australia, Perth, Western Australia.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
CALM	Department of Conservation and Land Management (now DEC), Western Australia
DAFWA	Department of Agriculture and Food, Western Australia
DEC	Department of Environment and Conservation, Western Australia
DEH	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
DEP	Department of Environment Protection (now DEC), Western Australia
DIA	Department of Indigenous Affairs

DLI	Department of Land Information, Western Australia
DMP	Department of Mines and Petroleum, Western Australia
DoE	Department of Environment (now DEC), Western Australia
DoIR	Department of Industry and Resources (now DMP), Western Australia
DOLA	Department of Land Administration, Western Australia
DoW	Department of Water
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
RIWI Act	Rights in Water and Irrigation Act 1914, Western Australia
s.17	Section 17 of the Environment Protection Act 1986, Western Australia
TEC	Threatened Ecological Community

Definitions:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005. Department of Conservation and Land Management, Como, Western Australia* }:-

- P1** **Priority One - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P2** **Priority Two - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P3** **Priority Three - Poorly Known taxa:** taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4** **Priority Four – Rare taxa:** taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R** **Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable):** taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X** **Declared Rare Flora - Presumed Extinct taxa:** taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1** **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.
- Schedule 2** **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3** **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4** **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna. Department of Conservation and Land Management, Como, Western Australia* }:-

- P1** **Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2** **Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3** **Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which

are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxon needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.

P4 Priority Four: Taxa in need of monitoring: Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.

P5 Priority Five: Taxa in need of monitoring: Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999*)

EX Extinct: A native species for which there is no reasonable doubt that the last member of the species has died.

EX(W) Extinct in the wild: A native species which:
(a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
(b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.

CR Critically Endangered: A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.

EN Endangered: A native species which:
(a) is not critically endangered; and
(b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.

VU Vulnerable: A native species which:
(a) is not critically endangered or endangered; and
(b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

CD Conservation Dependent: A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

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 the 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, rare 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.
- (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.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (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.
- (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.
- (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.