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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4395/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Robe River Mining Co Pty Ltd**

1.3. Property details

Property: *Iron Ore (Robe River) Agreement Act 1964*, Special Lease for Mining Operations 3116/4629 (Document I 195322 L), Lots 284, 286, 287 on Deposited Plan 214781, Lots 786, 787, 788 on Deposited Plan 31274.
Local Government Area: Shire of Ashburton
Colloquial name: Wickham Town Expansion

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
70.5		Mechanical Removal	Building Construction and Associated Infrastructure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 30 November 2011

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 and are useful to look at vegetation in a regional context. The following Beard vegetation associations are located within the application area (GIS Database):

157**:** Hummock grasslands, grass steppe; hard spinifex, *Triodia wiseana; and*

589**:** Mosaic: Short bunch grassland - savannah / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft Spinifex.

In September 2010 Rio Tinto (2010) undertook flora and vegetation surveys of the Wickham town expansion study area and identified the following vegetation units within the application area:

Vegetation of minor narrow drainage channels of rocky hills and surrounding red sand plains.

MF1 - *Acacia tumida* var. *pilbarensis*, *Grevillea wickhamii* open scrub over *Acacia stellaticeps*, *Scaevola spinescens* low scattered shrubs over *Triodia schinzii* scattered hummock grasses.

MF2 - *Corymbia hamersleyana* scattered low trees over *Acacia tumida var. pilbarensis, Grevillea wickhamii* tall open shrubland over *Acacia tumida var. pilbarensis, Eremophila longifolia* open shrubland over *Acacia stellaticeps, Scaevoila spinescens* low open shrubland over *Triodia epactia* open hummock grassland.

Vegetation of red sand plains including areas with saline influence.

SP1 - *Acacia stellaticeps* low open heath over *Triodia schinzii, Triodia epactia* hummock grassland.

SP2 - *Grevillea wickhamii* tall open shrubland over *Santalum lanceolatum, Acacia bivenosa* open shrubland over *Acacia stellaticeps, Diplopeltis eriocarpa* low open shrubland over *Triodia schinzii, Triodia epactia* open hummock grassland.

SP3 - *Dolichandrone heterophylla, Acacia bivenosa* shrubland over *Acacia stellaticeps, Scaevola spinescens* shrubland to low open heath over *Triodia schinzii, Triodia epactia* hummock grassland.

SP4 - *Grevillea wickhamii, Acacia tumida var. pilbarensis* tall open shrubland to tall open scrub over *Acacia tumida var. pilbarensis, Acacia bivenosa, Acacia ancistrocarpa* shrubland over *Acacia stellaticeps* open scattered shrubs over *Triodia schinzii, Triodia epactia* hummock grassland.

SP5 - *Corymbia hamersleyana* scattered low trees over *Acacia trachycarpa* tall open shrubland over *Acacia stellaticeps* scattered low shrubs over *Triodia epactia* hummock grassland over *Cenchrus ciliaris* very open tussock grassland.

Vegetation of low aeolian red sand dunes.

SD1 - *Acacia sabulosa* tall open shrubland over *Acacia sabulosa, Santalum lanceolatum* shrubland over *Acacia stellaticeps, Diplopeltis eriocarpa, Scaevola sericophylla* low shrubland over *Triodia schinzii* open hummock grassland.

Vegetation of low rocky hills.

LH1 - *Grevillea wickhamii* tall scattered shrubs over *Acacia bivenosa, Acacia ancistrocarpa, Hakea lorea* open shrubland over *Triodia wiseana, Triodia epactia* hummock grassland.

There were also areas that were mapped as 'Heavily Disturbed Ground' that did not contain any intact native vegetation.

Clearing Description Robe River Mining Co Pty Ltd is proposing to clear up to 70.5 hectares of native vegetation within an area of 71.6 hectares. The proposed clearing is for the purpose of exapanding the Wickham Township.

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

to

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

Comment The vegetation condition was assessed by botanists from Rio Tinto (2010).

The vegetation condition was described using a scale based on Trudgen (1988) and has been converted to the corresponding condition from the Keighery (1994) scale.

3. Assessment of application against clearing principles

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

Comments **Proposal is not likely to be at variance to this Principle**
The application area occurs within the Chichester (PIL1) subregion of the Pilbara Bioregion of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). This subregion is characterised by plains supporting shrub steppe of *Acacia inaequilatera* over *Triodia wiseana* hummock grasslands, while *Eucalyptus leucophloia* tree steppes occur on ranges (CALM, 2002).

A total of 97 native vascular plant taxa from 56 genera belonging to 27 families were recorded in the study area (Rio Tinto, 2010). The genera and families represented within the survey area are considered characteristic of coastal Pilbara flora, however, vegetation units associated with sandy plains and aeolian sand dunes were identified as having moderate conservation significance on the basis that such habitats are locally uncommon in the Wickham and Cape Lambert localities (Rio Tinto, 2010). No Declared Rare Flora species, Priority Flora or Threatened Ecological Communities were recorded from the study area (Rio Tinto, 2010).

The total number of vascular flora species (species richness) present within the study area was considered to be low to moderate; a result which can be attributed to the small size of the area, the dry seasonal conditions, lack of diversity in landforms and coastal location of the study area (Rio Tinto, 2010).

Areas of disturbance were most prevalent where the vegetation bordered cleared urban areas and disturbance was typically related to clearing for tracks and infrastructure. Weeds were observed frequently along the northern boundary of the area under application (Rio Tinto, 2010). Seven introduced flora species were recorded within the study area; of these *Cenchrus ciliaris* (Buffel Grass), *Cenchrus setiger* (Birdwood Grass) and *Aerva javanica* (Kapok Bush) are considered to be serious environmental weeds (Rio Tinto, 2010) Potential impacts to biodiversity from the spread of weed species may be minimised by the implementation of a weed condition.

Biota (2010) identified a limited range of fauna habitat types present within the proposed Wickham town site expansion footprint and concluded that the majority of the fauna habitats in the study area are degraded or otherwise widespread and well represented regionally. Given that the vegetation and habitats present within the broader Wickham town site expansion footprint area are well represented on a regional scale it is unlikely that the area applied to be cleared contains a high level of faunal diversity.

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

Methodology Biota (2010)
CALM (2002)
Rio Tinto (2010)
GIS Database:
- IBRA WA (Regions – Subregions)

(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**
Biota (2010) identified a limited range of fauna habitat types present within the proposed Wickham town site expansion footprint. The fauna habitats identified are considered to be widespread across the Pilbara Bioregion with much of the area considered to be in degraded condition.

Three habitat types were identified within the area under application:

- Open degraded land adjoining town site consisting of Buffel Grass over alluvial sandy loam. Recently burnt;
- *Acacia* shrubs in lower lying poor drainage areas on silty substrate; and
- Open *Acacia sp. s*hrubland, over *Triodia sp*. on alluvial clay loam.

The results of a desktop fauna survey conducted by Biota (2010) identified 10 species of threatened fauna which could potentially occur within the study area, however, the vegetation types within the application area are well represented regionally and it is unlikely that the area proposed to be cleared represents significant fauna habitat in a regional context.

A survey for Short Range Endemic (SRE) invertebrates within the broad study area identified the land snail *Rhagada convicta*, which is a widespread species in the Western Pilbara (Biota, 2010). Pseudoscorpions (*Solinus sp.* and *Afrosternophorus sp.)* were recorded within the study area but were also recorded outside of the study area and it is not likely that the application area represents a significant habitat for these invertebrate species (Biota, 2010).

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

Methodology Biota (2010)

(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 records of Declared Rare Flora (DRF) within the application area (GIS Database). A flora survey over the application area was undertaken by Rio Tinto in September 2010. No species of DRF were recorded during this survey (Rio Tinto, 2010).

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

Methodology Rio Tinto (2010)
GIS Database:
- Threatened and Prioirty 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**
According to available databases, there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). A vegetation survey of the application area was conducted by Rio Tinto in September 2010. This survey did not identify any vegetation communities described as a TEC (Rio Tinto, 2010).

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

Methodology Rio Tinto (2010)
GIS Database:
Threatened Ecological Sites Buffered

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

Comments **Proposal is not at variance to this Principle**
The application area falls within the Pilbara IBRA bioregion (GIS Database). Shepherd (2009) reports that approximately 99.95% of the pre-European vegetation still exists in this bioregion.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Pilbara	17,804,188	17,794,647	~99.95	Least Concern	~6.3
Beard vegetation associations - State					
157	502,729	501,514	~99.8	Least Concern	17.9
589	809,754	809,637	~100	Least Concern	1.6
Beard vegetation associations - Bioregion					
157	198,633	198,518	~99.9	Least Concern	5.7
589	730,718	730,683	~100	Least Concern	1.8

* Shepherd (2009)
** Department of Natural Resources and Environment (2002)

Beard vegetation associations 157 and 589 retain over approximately 99% of their pre-European extent which is more than the 30% threshold level recommended in the National Objectives Targets for Biodiversity Conservation below which, species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000).

Given that the vegetation is well represented locally and regionally the vegetation within the proposed area is not likely to be significant as a remnant in a highly cleared landscape.

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

Methodology Department of Natural Resources and Environment (2002)
EPA (2000)
Shepherd (2009)
GIS Database:
- IBRA WA (Regions – Subregions)

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

Comments **Proposal is at variance to this Principle**
There are no permanent watercourses mapped within the areas under application, however, there are two minor ephemeral water courses located within the application area (GIS Database). Rio Tinto (2010) have identified vegetation units MF1 and MF2 which are associated with minor narrow drainage channels of rocky hills and surrounding red sand plains.

Given that these vegetation types to be cleared are growing in association with minor drainage channels part of the vegetation under application is considered to be growing in an environment associated with a watercourse. However, ephemeral drainage channels are common throughout the Pilbara landscape and the proposed clearing is not likely to have significant impacts on sediment runoff and erosion of minor watercourses in the local area.

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

Methodology Rio Tinto (2010)
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**
Approximately 95% of the application area is located within the Uaroo land system (GIS Database). The Uaroo land system is described as broad sandy plains with hard and soft spinifex grasslands. This system is generally not susceptible to erosion although may be susceptible to erosion following fire (Van Vreeswyk et al., 2004). The 'Sandy Plains' sub unit of the Uaroo land system is the only one to occur within the area under application (Rio Tinto, 2010).

The remainder of the application area is located within the Ruth land system (GIS Database). The Ruth land

system is described as rocky hills and ridges with hard spinifex (occasionally soft spinifex) grasslands with a very low erosion risk (Van Vreeswyk et al., 2004). Of the four sub units identified within this land system the 'hills, ridges and upper slopes' and 'narrow drainage floors, creeklines and channels' land units occur within the area under application (Van Vreeswyk et al., 2004; Rio Tinto, 2010).

Rio Tinto (2010) have identified that the vegetation unit SD 1 may be at risk of increased soil erosion associated with the removal of native vegetation. This vegetation unit covered approximately 8.2 hectares oof the application area (Rio Tinto, 2010). Potential impacts of soil erosion may be minimised by the implementation of a staged clearing condition.

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

Methodology Rio Tinto (2010)
Van Vreeswyk et al. (2004)
GIS Database:
- Rangeland Land System Mapping

(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 nearest conservation area is the 'C' Class Delambre Island Nature Reserve which is situated approximately 25 kilometres northwest of the application area off shore of Cape Lambert (GIS Database). The nearest onshore conservation area is the Millstream-Chichester National Park located approximately 55 kilometres south of the application area (GIS Database).

Given the distance to the nearest conservation area, it is not likely that the proposed clearing will significantly impact on the environmental values of any conservation areas.

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

Methodology GIS Database:
- DEC 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**
The area under application is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database). The nearest PDWSA is the Roebourne Water Reserve which is located approximately 10 kilometres south of the application area (GIS Database) and the proposed clearing is unlikely to impact on the quality of the Roebourne Water Reserve.

The Pilbara is an arid environment. Drainage lines within the area under application are ephemeral and surface water runoff is only likely to occur during and immediately following significant rainfall events. Groundwater within the application area has moderate salinity levels of between 1,000 to 3,000 milligrams per litre Total Dissolved Solids (TDS) (GIS Database), however, it is not likely that the proposed removal of native vegetation will cause deterioration in the quality of surface or underground water.

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

Methodology GIS Database:
- Groundwater Salinity, Statewide
- Public Drinking Water Source Areas (PDWSAs)

(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**
There are no permanent watercourses mapped within the areas under application, however, there are two minor ephemeral water courses located within the application area (GIS Database) and Rio Tinto (2010) have identified vegetation units MF1 and MF2 which are associated with minor narrow drainage channels of rocky hills and surrounding red sand plains.

Local flooding occurs seasonally in the Pilbara region as a result of cyclonic activity and sporadic thunderstorms and it is likely that the drainage lines within the area under application would experience seasonal flooding during high rainfall periods. However, it is not likely that the proposed clearing will lead to an increase in the incidence or intensity of flooding in the local area.

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

Methodology Rio Tinto (2010)

GIS Database:
- Hydrography, linear

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

Comments

The clearing permit application was advertised on 13 June 2011 by the Department of Mines and Petroleum inviting submissions from the public. There was one submission received regarding planning approval.

There is one native title claim over the area under application (GIS Database). This claim (WC99/14) was determined by the Federal Court of Australia on 5 May 2005 (GIS Database). However, the 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*.

According to available databases, there are no 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 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.

Methodology

GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Determined

4. References

Biota (2010) Wickham Town Expansion Level 1 Fauna Assessment and SRE Fauna Survey. Prepared for Rio Tinto Iron Ore: DRAFT October 2010.

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Pilbara 1 (PIL1 - Chichester subregion) Department of Conservation and Land Management, Western Australia.

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.

EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority, Western Australia.

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

Rio Tinto (2010) Wickham Town Expansion Flora and Vegetation Survey: Native Vegetation Clearing Permit Supporting Report October 2010.

Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

Trudgen M.E. (1988) A Report on the Flora and Vegetation of the Port Kennedy Area. Unpublished report prepared for Bowman Bishaw and Associates, West Perth.

Van Vreeswyk, A.M.E., Payne, A.L., Hennig, P., and Leighton, K.A. (2004) An Inventory and Condition Survey of the Pilbara Region, Western Australia, Department of Agriculture, 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.