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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4068/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Navigator (Bronzewing) Pty Ltd**

1.3. Property details

Property: Mining Lease 53/15
Local Government Area: Shire of Wiluna
Colloquial name: Corboys Project

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 30 December 2010

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 at a 1:250,000 scale for the whole of Western Australia. Two Beard vegetation associations have been mapped within the application area (GIS Database; Shepherd, 2007).

29: Sparse low woodland; mulga & *Acacia victoriae* in scattered groups; and

676: Succulent steppe; samphire (GIS Database; Shepherd, 2007).

The application area was surveyed by Outback Ecology staff on the 29-30 October 2007 (Outback Ecology, 2010). The following vegetation types were identified within the application area:

Sandy Plains

S1: *Eucalyptus kingsmillii* subsp. *kingsmillii* open tree mallee and mulga open low woodland B over *Triodia basedowii* mid-dense hummock grass;

S3: *Acacia pruinocarpa* open low woodland A over mulga low woodland B over mixed open low scrub over *Eragrostis eriopoda* very open low grass; and

Stony Plains

R2: Mulga low woodland B over *Acacia ramulosa* var. *ramulosa* thicket over *Eremophila forrestii* open low scrub B over *Aristida contorta* very open low grass; and *Acacia ramulosa* var. *ramulosa* thicket over *Eremophila forrestii* open low scrub B over *Ptilotus obovatus* open dwarf scrub C over *Aristida contorta* very open low grass (Outback Ecology, 2010).

Clearing Description

Navigator (Bronzewing) Pty Ltd are applying to clear up to 46 hectares of native vegetation within an area of approximately 147 hectares to develop a series of small open cut pits on the M53/15 tenement (Corboys Prospect) (Outback Ecology, 2010).

Navigator (Bronzewing) Pty Ltd intend to clear for a series of small pits running adjacent to each other in a north-west to south-east trend along the tenement, as well as a waste landform, topsoil stockpiles, RoM pad, laydown area, evaporation pond or turkey's nest and access road (Outback Ecology, 2010).

Ore from the Corboys Prospect will be processed at the Bronzewing minesite located approximately 33 kilometres south of the application area.

Vegetation Condition	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994); To Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery,1994).
Comment	The application area is located in the Eastern Goldfields region, approximately 90 kilometres south-east of Wiluna (GIS Database). The vegetation condition was derived from a vegetation survey conducted by Outback Ecology (2010).

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 East Murchison (MUR1) subregion of the Murchison Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by internal drainage, and extensive areas of elevated red desert sand plains with minimal dune development (CALM, 2002). It contains salt-lake systems associated with the occluded Paleodrainage system (CALM, 2002). This subregion has broad plains of red-brown soils and breakaway complexes as well as red sand plains (CALM, 2002). The vegetation is dominated by Mulga woodlands often rich in ephemerals, hummock grasslands, saltbush shrublands and Halosarcia shrublands (CALM, 2002).

The vegetation within the application area consists of Beard vegetation associations 29 and 676 which are common and widespread throughout the Goldfields region, with approximately 100% of the pre-European vegetation extent remaining (Shepherd, 2007; GIS Database). Outback Ecology (2010) recorded 46 vascular plant taxa from 19 genera and 14 families during the vegetation survey of the application area. No Declared Rare Flora or Priority flora species were recorded within the application area (Outback Ecology, 2010).

Whilst there are no TEC's within the East Murchison subregion, eighteen ecosystems that are classified as 'other ecosystems at risk' have been identified (CALM, 2002). One vegetation association (R2) represents an "ecosystem at risk" as defined by CALM (2002). This is "Stony ironstone mulga (*Acacia aneura*) shrublands of the north-east Goldfields (SIMS) (Pringle et al., 1994 - site type 28)". The R2 vegetation association occurs within the application area, however it is unlikely to be cleared based on the current disturbance footprint (Outback Ecology, 2010). As this ecosystem is unlikely to be disturbed and the processes threatening it are described as "grazing pressure" (CALM, 2002), it is not likely that there will be a significant impact on the ecosystem from the proposed clearing.

One Priority Ecological Community (PEC), "Barwidgee calcrete groundwater assemblage type on Carey palaeodrainage on Barwidgee Station" (DEC, 2010) occurs within the application area (GIS Database). The Barwidgee calcrete groundwater assemblage PEC has a category ranking of Priority 1, which is defined as "ecological communities with apparently few, small occurrences, all or most not actively managed for conservation (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) and for which current threats exist" (DEC, 2007). Calcrete aquifers in the northern part of the East Murchison subregion are known to support a wide range of subterranean aquatic fauna that are short range endemics (CALM, 2002). However, it is unlikely the proposed clearing will impact the quality of the groundwater and as such will not impact the subterranean aquatic fauna reliant on the groundwater.

No alien weed species were recorded within the application area (Outback Ecology, 2010), 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 is not likely to be at variance to this Principle.

Methodology

CALM (2002)
DEC (2007)
DEC (2010)
Outback Ecology (2010)
Shepherd (2007)
GIS Database:
- IBRA WA (regions - subregions)
- 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

According to Shepherd (2007) approximately 100% of the pre-European vegetation remains within the Murchison bioregion. Given the extent of native vegetation remaining in the local area and bioregion, the

vegetation to be cleared does not represent a significant ecological linkage.

No formal fauna surveys have been conducted over the application area. Ninox Wildlife Consulting undertook fauna assessments of the Bronzewing and Mt McClure project areas, which are approximately 33 and 37 kilometres south and south-west of the application area, in 1989 and 1993 respectively. No conservation significant species were recorded during these studies, however, the following species were identified as potentially occurring within the area (Outback Ecology, 2010):

- Crest-tailed Mulgara (*Dasycercus cristicauda*) - Vulnerable;
- Long-tailed Dunnart (*Sminthopsis longicaudata*) - Priority 4;
- Princess Parrot (*Polytelis alexandrae*) - Priority 4; and
- Peregrine Falcon (*Falco peregrinus*) - Schedule 4.

At the Mt McClure project area Ninox Wildlife Consulting identified creeklines, part mulga complexes, low hills complex and breakaway complexes as being the major habitat types (Outback Ecology, 2010). The application area does not contain any creeklines, low hills or breakaway complexes (Outback Ecology, 2010). The application area has been previously disturbed through mineral exploration programmes, historical mine workings and cattle grazing (Outback Ecology, 2010). Given the historical use of the area, and the extent of uncleared land in the surrounding landscape, it is not likely that the proposed clearing area represents significant habitat for native fauna.

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

Methodology Outback Ecology (2010)
Shepherd (2007)
GIS Database:
- IBRA WA (regions - subregions)
- Pre-European Vegetation

(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 GIS databases there are no known records of Declared Rare Flora (DRF) within the application area (GIS Database).

A flora survey was conducted over the application area by staff from Outback Ecology on 29-30 October 2007 (Outback Ecology, 2010). No DRF or Priority flora species were recorded within the application area (Outback Ecology, 2010).

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

Methodology Outback Ecology (2010)
GIS Database:
- Declared Rare and Priority 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 likely to be at variance to this Principle**
A search of available databases reveals that there are no Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest TEC is located approximately 118 kilometres south-west of the application area (Depot Springs Stygofauna Community) (DEC, 2006). At this distance there is little likelihood the native vegetation of the application area comprises the whole or part of, or is necessary for the maintenance of a TEC.

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

Methodology DEC (2006)
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 falls within the Murchison IBRA bioregion (GIS Database). Shepherd (2007) reports that approximately 100% of the pre-European vegetation remains in this bioregion.

The vegetation within the application area is recorded as Beard vegetation associations:

29: Sparse low woodland; mulga & *Acacia victoriae* in scattered groups; and
676: Succulent steppe; samphire (GIS Database; Shepherd, 2007).

According to Shepherd (2007) approximately 100% and 94.9% of these Beard vegetation associations (respectively) remain at a state level, with approximately 100% remaining at a bioregional level (see table below). Therefore the area proposed to be cleared does not represent a significant remnant of native vegetation within an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - East Murchison	28,120,590	28,120,590	~100%	Least Concern	~1.06%
Beard vegetation associations - State					
29	7,903,991	7,903,991	~100%	Least Concern	~0.3%
676	2,063,389	1,958,293	~94.9%	Least Concern	~3.6%
Beard vegetation associations - Bioregion					
29	2,956,383	2,956,383	~100%	Least Concern	N/A
676	382,819	382,819	~100%	Least Concern	N/A

* Shepherd (2007)
** 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)
Shepherd (2007)
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 likely to be at variance to this Principle**
According to available GIS Databases, there are no permanent wetlands or watercourses within the application area (GIS Database).

Based on vegetation mapping conducted by Outback Ecology (2010) none of the vegetation associations found within the application area are associated with drainage areas.

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

Methodology Outback Ecology (2010)
GIS Database:
- Hydrography, Linear
- Geodata, Lakes

(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 has been surveyed by the Department of Agriculture and Food (Pringle et al, 1994). According to the available datasets the application area intersects the Bullimore, Leonora and Violet land systems (GIS Database).

The Bullimore land system comprises of extensive sandplains supporting spinifex hummock grasslands and is not susceptible to erosion (Pringle et al, 1994).

The Leonora land system comprises of low greenstone hills and stony plains, supporting mixed stony chenopod

shrublands (Pringle et al, 1994). Parts of this land system (drainage tracts) are susceptible to water erosion, particularly in areas where perennial shrub cover is substantially reduced and/or the soil surface is disturbed, though other units with stony mantles are inherently resistant (Pringle et al, 1994).

The Violet land system comprises of undulating stony and gravelly plains and low rises, supporting mulga shrublands (Pringle et al, 1994). Abundant mantles provide effective protection against soil erosion over most of this land system, except where the soil surface has been disturbed (Pringle et al, 1994).

The terrain of the application area is undulating, with occasional low hills and extensive sand plains (Outback Ecology, 2010). The soils are shallow earthy-loams overlying red-brown hardpan; with shallow stony loams on hills and red earthy sands on the sand plains (Outback Ecology, 2010).

The proposed clearing is unlikely to cause appreciable land degradation.

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

Methodology Outback Ecology (2010)
Pringle et al. (1994)
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 proposed clearing is not located within a conservation reserve (GIS Database). The nearest known conservation reserve is the A-class Wanjarri Nature Reserve, located approximately 21 kilometres south-west of the application area (GIS Database). Based on the distance between the proposed clearing and the nearest conservation area, the proposed clearing is not likely to impact the environmental values of any adjacent or nearby conservation area.

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**
According to available databases, the application area is not located within a Public Drinking Water Source Area (PDWSA) (GIS Database).

There are no permanent or semi-permanent water bodies or watercourses within the application area (GIS Database). Surface drainage flows towards Lake Maitland which is located approximately 10 kilometres south-east of the application area (Outback Ecology, 2010).

The annual average rainfall for the application area is 255 millimetres and the average annual evaporation rate is 3,200 - 3,600 millimetres (GIS Database). Therefore, during normal rainfall events surface water within the application area is likely to evaporate quickly. However, substantial rainfall events create surface sheet flow which is likely to have a higher level of sediments. During normal rainfall events, the proposed clearing would not likely to lead to an increase in sedimentation within the application area.

The groundwater salinity within the application area is between 1,200 - 1,500 milligrams per litre of Total Dissolved Solids (TDS) (Outback Ecology, 2010). This is considered to be fresh to brackish but still suitable for livestock. The proposed clearing is not likely to cause salinity levels within the application area to alter.

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

Methodology Outback Ecology (2010)
GIS Database:
- Evaporation Isopleths
- Public Drinking Water Source Areas
- Rainfall, mean annual

(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 an arid climate with an average annual rainfall of 255.3 millimetres recorded

from the nearest weather station at Wiluna approximately 90 kilometres north-west of the application area (CALM, 2002; BoM, 2010). The application area also experiences a high average annual evaporation rate of approximately 3,200 - 3,600 millimetres (BoM, 2010). Given that there is not likely to be any substantial surface flow, the proposed clearing of 46 hectares is not likely to cause or increase the incidence or intensity of flooding.

The application area is located within the Lake Carey catchment area (GIS Database). However, the size of the area to be cleared (46 hectares) in relation to the size of the Lake Carey catchment area (11,378,213 hectares) (GIS Database) is not likely to increase the potential for flooding within the application area, local area or within the catchment.

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

Methodology BoM (2010)
CALM (2002)
GIS Database:
- Hydrographic Catchments - Catchments

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

Comments

There are no native title claims over the area under application (GIS Database). The mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (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.

The clearing permit application was advertised on 22 November 2010 by the Department of Mines and Petroleum inviting submissions from the public. There were no submissions received.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title NNTT

4. References

BoM (2010) Bureau of Meteorology Website - Climate Averages by Number, Averages for WILUNA. http://www.bom.gov.au/climate/averages/tables/cw_013012.shtml (Accessed 25 November 2010).

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Murchison 1 (MUR1 - East Murchison subregion) Department of Conservation and Land Management, Western Australia.

DEC (2006) List of Threatened Ecological Communities on the Department of Environment and Conservation's Threatened Ecological Community (TEC) Database endorsed by the Minister for the Environment. Species and Communities Branch, Department of Environment and Conservation.

DEC (2007) Definitions, Categories and Criteria for Threatened and Priority Ecological Communities. www.dec.wa.gov.au.

DEC (2010) Priority Ecological Communities for Western Australia. Species and Communities Branch, Department of Environment and Conservation. www.dec.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.

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

Outback Ecology (2010) Bronzewing - Mt McClure; Application for a Purpose Permit to Clear Native Vegetation at the Bronzewing - Mt McClure Project: - Corboys Prospect M53/15. Unpublished report for Navigator Resources Limited.

Pringle, H.J.R., Van Vreeswyk, A.M.E., and Gilligan, S.A. (1994) An Inventory and Condition Survey of the North-Eastern Goldfields, Western Australia, Department of Agriculture, Western Australia.

Shepherd, D.P. (2007) 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.

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.