



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5504/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Hamersley Iron Pty Ltd**

1.3. Property details

Property: *Iron Ore (Hamersley Range) Agreement Act 1963*, Mineral Lease 4SA (AML 70/4)
Local Government Area: Shire of Ashburton
Colloquial name: Brockman 3 Exploration Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
26		Mechanical Removal	Borrow Pits and Associated Activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 4 April 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 vegetation association has been mapped within the application area (GIS Database):

Beard vegetation association 567: Hummock grasslands, shrub steppe; mulga & kanji over soft spinifex & *Triodia basedowii* (Government of Western Australia, 2011; GIS Database).

A flora and vegetation survey conducted by Rio Tinto (2012) identified four vegetation communities within the application area:

Hilltops and Slopes

CdTw: *Corymbia deserticola* subsp. *deserticola* scattered low trees over *Triodia wiseana* and *T. schinzii* very open hummock grassland; and

EIAa: *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Acacia* sp. aff. *acradenia* low open Shrubland over *Triodia wiseana* open hummock grassland.

Major and Minor Drainage Lines

ExGr: *Eucalyptus xerothermica*, *E. leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* low open woodland over *Gossypium robinsonii* and *Acacia tumida* var. *pilbarrensis* Shrubland over *Triodia pungens* open hummock grassland and *Paraneurachne muelleri* scattered tussock grasses; and

ElGwTp: *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Acacia citrinoviridis*, *Grevillea wickhamii* and *Gossypium robinsonii* Shrubland over *Triodia pungens* hummock grassland.

There are also heavily disturbed/cleared areas throughout the application area.

Clearing Description

Hamersley Iron Pty Ltd is proposing to clear up to 26 hectares of native vegetation within a 91 hectare application area for the Brockman 3 Exploration project. The clearing of vegetation is required for the purposes of borrow pits and associated activities.

The vegetation will be cleared using a dozer with the blade down. The vegetation and topsoil will be stockpiled separately for use in rehabilitation.

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 in the Hamersley subregion of Western Australia and is situated approximately 50 kilometres north-west of the Tom Price town site (GIS Database).

The vegetation condition was assessed during a survey undertaken by botanists from Rio Tinto (2012).

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 Hamersley subregion of the Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion is characterised by mountainous area of Proterozoic sedimentary ranges and plateaux, dissected by gorges. 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).

Rio Tinto (2012) conducted a flora and vegetation survey of the application area from 28 March to 2 April 2012, which identified a total of 92 native vascular plant taxa from 52 genera and 25 families within the application area (Rio Tinto, 2012). Rio Tinto (2012) state that the application area has a moderate species richness and the application area does not support a high diversity of flora or vegetation units which may be important for the locality or the subregion. Rio Tinto (2012) identified four vegetation communities associated with two landform types within the application area. The condition of the vegetation types were classified from 'excellent' to 'completely degraded' (Keighery, 1994; GIS Database). Two of these vegetation communities are associated with drainage lines and are likely to provide important habitat for native fauna. These vegetation types should be avoided where possible; however they are well represented outside the application area (Rio Tinto, 2012).

There were no Priority Flora species recorded within the application area (Rio Tinto, 2012). A search on the Department of Environment and Conservation's Threatened and Priority Flora databases revealed no Threatened Flora species and one Priority Flora species that may potentially occur in the application area (DEC, 2013). No Priority Flora has been recorded within the application area during previous botanical surveys (Rio Tinto, 2012).

There are no known Threatened Flora species, Threatened Ecological Communities or Priority Ecological Communities recorded within the application area (Rio Tinto, 2012; GIS Database).

Four species of weed were identified during the survey (Rio Tinto, 2012). Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

There were two faunal habitats identified within the application area based on vegetation mapping by Rio Tinto (2012). Both faunal habitats within the application area are considered to be common and widespread within the subregion and faunal assemblages are unlikely to be different to that found in similar habitat located elsewhere in the region (Rio Tinto, 2012). The clearing of 26 hectares of native vegetation within a 91 hectare application area is unlikely to have a significant impact on faunal diversity in a regional and local context.

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

Methodology CALM (2002)
DEC (2013)
Keighery (1994)
Rio Tinto (2012)
GIS Database:
- IBRA WA (Regions - Subregions)
- Pre-European vegetation
- Rocklea 50cm Orthomosaic - Landgate 2004
- 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**

There was no fauna survey conducted over the application area. Based on a flora and vegetation survey by Rio Tinto (2012), two fauna habitat types were identified within the application area;

- **Hilltops and slopes;** and
- **Drainage lines.**

Rio Tinto (2012) identified the vegetation condition to be 'very good' to 'excellent' (Keighery, 1994). The landforms and habitat found within the application area is considered as being well represented in the Hamersley subregion (Rio Tinto, 2012). The application area does not contain habitats or faunal assemblages that are ecologically significant (Rio Tinto, 2012). The application area includes vegetation types ExGr and

EIGwTp, which are associated with drainage lines and are likely to provide important habitat for native fauna (Rio Tinto, 2012). Impacts upon this area should be avoided where possible. Potential impacts to riparian vegetation may be minimised through the implementation of a vegetation management condition. No other significant fauna habitats were observed within the application area. The clearing of 26 hectares of native vegetation is not likely to significantly impact on important habitat for native fauna.

There is one conservation significant species listed as Threatened under the *Environment Protection and Biodiversity Conservation Act 1999* or protected under Western Australian legislation (*Wildlife Conservation Act, 1950*), that may potentially occur within the application area; The Bush Stone-curlew (*Burhinus grallarius*) (DEC – Priority 4) (DEC, 2013). The clearing of native vegetation within the application area could potentially disturb the Bush Stone-curlew, which may infrequently be found in the vicinity of the application area (Rio Tinto, 2012). This species is considered highly mobile and has a wide distribution so the clearing is unlikely to significantly impact on the species. The habitat present within the application area is not considered significant habitat for the Bush Stone-curlew (Rio Tinto, 2012). The proposed clearing of 26 hectares of native vegetation within a 91 hectare application area is not likely to impact critical feeding or breeding habitat for any conservation significant fauna species.

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

Methodology DEC (2013)
Keighery (1994)
Rio Tinto (2012)

(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 Threatened Flora within the application area (GIS Database). A search of the Department of Environment and Conservation's Threatened and Priority Flora databases identified no Threatened Flora species as occurring within a 20 kilometre radius of the application area (DEC, 2013).

Rio Tinto (2012) conducted a vegetation and flora survey of the application area from 28 March 2012 to 2 April 2012. No Threatened Flora was recorded within the survey area.

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

Methodology DEC (2013)
Rio Tinto (2012)
GIS Database:
- Threatened 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 the available databases shows that there are no Threatened Ecological Communities (TEC's) within the application area (GIS Database).

The nearest TEC is situated 30 kilometres north-east of the application area. Given the distance separating the TEC buffer zone and the application area, the proposed clearing is not likely to impact the environmental values of the TEC.

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

Methodology 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). The vegetation within the application area is recorded as:

Beard vegetation association 567: Hummock grasslands, shrub steppe; mulga & kanji over soft spinifex & *Triodia basedowii* (Government of Western Australia, 2011; GIS Database).

According to the Government of Western Australia (2011), Beard vegetation association 567 retains approximately 99% of its pre-European extent. The local area has been extensively cleared, however the area proposed to be cleared is not a significant remnant of native vegetation.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves
IBRA Bioregion - Pilbara	17,804,427	17,729,352	~99.58	Least Concern	6.32
Beard vegetation associations - State					
567	777,507	774,896	~99.66	Least Concern	22.33
Beard vegetation associations - Bioregion					
567	776,824	774,213	~99.66	Least Concern	22.35

* Government of Western Australia (2011)

** Department of Natural Resources and Environment (2002)

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

Methodology Department of Natural Resources and Environment (2002)
Government of Western Australia (2011)
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 may be at variance to this Principle

The application area is intersected by several non-perennial drainage lines (GIS Database). Based on vegetation mapping by Rio Tinto (2012), there are two vegetation types associated with drainage lines:

- **ExGr**; and
- **EIGwTp**.

The condition of the riparian vegetation type is classified as 'excellent' to 'very good' (Rio Tinto, 2008; 2012; Keighery, 1994).

These vegetation units are susceptible to degradation from weed infestation clearing (CALM, 2002). The proposed clearing is likely to have some impact to the drainage vegetation and Hamersley Iron Pty Ltd will minimise disturbance where possible (Rio Tinto, 2012). The vegetation types are likely to provide important habitat for native fauna (Rio Tinto, 2012). Hamersley Iron Pty Ltd estimate that only 2.6 hectares of the **ExGr** vegetation type and 6.1 hectares of the **EIGwTp** vegetation type associated with the drainage area habitat is within the application area, and only a small amount will be impacted (Rio Tinto, 2012). To minimise disturbance to drainage flow patterns, there may be a requirement to install appropriate culverts or drainage structures in order to maintain flows along creeklines. Provided disturbance to riparian habitats is avoided or minimised where possible, and strict weed hygiene procedures are followed, the proposed works are not expected to substantially impact these vegetation units. Potential impacts to riparian vegetation may be minimised through the implementation of a vegetation management condition.

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

Methodology CALM (2002)
Keighery (1994)
Rio Tinto (2012)
GIS Database:
- Geodata, Lakes
- Hydrography, Linear

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

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

According to available datasets the application area is located within the Platform and Newman land systems (GIS Database).

The Platform land system is characterised by dissected slopes and raised plains supporting hard spinifex

grasslands. This system has a very low erosion hazard (Van Vreeswyk et al., 2004).

The Newman land system consists of rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands. This Newman land system soils are not particularly prone to soil erosion (Van Vreeswyk et al., 2004).

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

Methodology 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 application area is not located within any conservation areas (GIS Database). The nearest conservation area is Karijini National Park, located approximately 60 kilometres east of the application area (GIS Database). Given the distance separating Karijini National Park and the application area, the proposed clearing is not likely to impact the environmental values of the 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

The application area is not located within a Public Drinking Water Source Area (GIS Database). The application areas are located within the proclaimed Pilbara groundwater area under the *Rights in Water and Irrigation Act 1914* (GIS Database). Any groundwater extraction and/or taking or diversion of surface water for the purposes other than domestic and/or stock watering is subject to licence by the Department of Water.

Several drainage tracts transect the application areas (GIS Database). The drainage patterns in the surrounding area have been impacted by previous disturbance and infrastructure (GIS Database). These drainage tracts are dry for most of the year and only flow and hold surface water for short durations following significant rainfall events (CALM, 2002).

Sediment loads are typically high in flowlines in the Pilbara following large rainfall events and any increase to the sediment load caused by the proposed clearing is likely to be negligible (Rio Tinto, 2012). If clearing of riparian vegetation is required there may be some localized short term sedimentation during the clearing process, however, this is not likely to be an ongoing issue. Potential impacts to riparian vegetation may be minimised through the implementation of a vegetation management condition. The clearing of vegetation as a result of this proposal is therefore unlikely to result in any further deterioration in surface or groundwater quality in the local area.

The application area has a groundwater salinity that ranges from potable to marginal (500 - 1,000 milligrams/Litre Total Dissolved solids (TDS) (GIS Database). The proposed clearing of 26 hectares of native vegetation over an application area of 91 hectares is unlikely to further deteriorate the quality of underground water (GIS Database).

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

Methodology CALM (2002)
Rio Tinto (2012)
GIS Database:
- Geodata, Lakes
- Hydrography, Linear
- Public Drinking Water Source Areas
- RIWI Act, Groundwater Areas
- Groundwater Salinity, Statewide

(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 topical climate with rainfall usually in summer cyclonic or thunderstorm events (CALM, 2002), where the annual evaporation rate exceeds the annual rainfall (BoM,

2013). Any surface water resulting from normal rain events is expected to be short lived.

The application area is located within the Ashburton catchment area which covers a total area of approximately 7,877,743 hectares (GIS Database). The proposed clearing of 26 hectares is not likely to cause or exacerbate the incidence or intensity of floods in the catchment or local areas.

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

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

Comments

There is one Native Title claims over the area under application (WC97/89). The claim WC97/89 was determined by the Federal Court on 6 March 2007. 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 4 March 2013 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received in relation to the proposed clearing.

Methodology GIS Database:
- Aboriginal Sites of Significance
- Native Title Claims - Determined by the Federal Court
- Native Title Claims - Registered with the NNTT

4. References

- BoM (2013) Climate Statistics for Australian Locations. A Search for Climate Statistics for Paraburdoo Aero, Australian Government Bureau of Meteorology, viewed 14 March 2013, <http://reg.bom.gov.au/climate/averages/tables/cw_007185.shtml>.
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Pilbara 3 (PIL3 - Hamersley subregion) Department of Conservation and Land Management, Western Australia.
- DEC (2013) NatureMap - Mapping Western Australia Biodiversity, Department of Environment and Conservation, viewed 14 March 2013, <<http://naturemap.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.
- Government of Western Australia (2011) 2011 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.
- Rio Tinto Iron Ore (Rio Tinto) (2012) Flora and Vegetation Survey of Brockman 2 and Brockman 3. Native Vegetation Clearing Permit Supporting Report. Internal report, October 2012.
- 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.