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

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4034/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Dumpna Pty Ltd**

1.3. Property details

Property: Mining Lease 45/1193
Local Government Area: Town of Port Hedland
Colloquial name: Turner River Sand Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
20		Mechanical Removal	Sand Extraction

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 23 December 2010

2. Background

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard vegetation associations have been mapped at a scale of 1:250,000 for the whole of Western Australia. Three Beard Vegetation Associations are located within the application area (Shepherd, 2007): Beard vegetation association 619**:** Medium woodland; river gum (*Eucalyptus camaldulensis*). Beard vegetation association 589**:** Short bunch grassland - savannah / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft Spinifex. Beard Vegetation Association 647**:** Hummock grasslands, dwarf-shrub steppe; *Acacia translucens* over soft spinifex In July 2010 Astron undertook a flora and vegetation survey of the area under application and identified the following vegetation units within the application area: **Mallina Land system** AtAsTe **-** *Acacia tumida* open tall shrubland over *Acacia stellaticeps* low shrubland to open low heath over *Triodia epactia* hummock grassland. Te **-** *Triodia epactia* hummock grassland. **River Land System** AtCpTe**-** *Acacia tumida*, *Acacia trachycarpa* tall shrubland over mixed *Cajanus pubescens*, *Triumfetta ramosa*, *Corchorus incanus subps incanus* low open shrubland over *Triodia epactia* open hummock grassland.	Dumpna Pty Ltd is proposing to clear up to 20 hectares of native vegetation within an area of 55.9 hectares. The proposed clearing is for the purpose of sand extraction from the Turner River including an access road and stockpile area and access ramps to the riverbed.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994) To Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).	The application area is located in the Pilbara region, approximately 25 kilometres south west of Port Hedland (GIS Database). The vegetation condition was derived from a vegetation survey conducted by Astron (2010).

MaAc- *Melaleuca argentea* open low woodland over *Acacia trachycarpa*, *Melaleuca glomerata* shrubland over *Triodia sp* sterile open hummock grasses.

AtCp(Ma) - Regenerating open low mixed shrubs of *Acacia trachycarpa*, *Cajanus pubescens*, *Petalostylis labicheoides*, *Acacia morrisonii*, Scattered *Melaleuca argentea* trees.

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 (PIL4) sub-region of the Interim Biogeographic Regionalisation for Australia (IBRA) (GIS Database). This sub-region is characterised by quaternary alluvial and older colluvial coastal and sub-coastal plains with a grass savannah of mixed bunch and hummock grasses, and dwarf shrub steppe of *Acacia stellaticeps* or *A. pyrifolia* and *A. inaequilatera*. Uplands are dominated by *Triodia* hummock grasslands. Ephemeral drainage lines support *Eucalyptus victrix* or *Corymbia hamersleyana* woodlands (CALM, 2002).

There are 5 records of threatened fauna recorded within the local area (20 kilometre radius) however the closest record is located 11 kilometres north east of the application area. Astron (2010) identified a limited range of fauna habitat types present within the application area which are widespread and well represented regionally and it is therefore unlikely that the area applied to be cleared represents significant fauna habitat in a regional context.

A total of 44 taxa were recorded during a flora survey conducted by Astron (2010) including 16 families representing 30 genera. The most commonly recorded family was *Fabaceae* (Pea family) with 10 species, followed by *Poaceae* (grasses) with six species. The most frequently recorded genus was *Acacia* with six species (Astron, 2010). The total number of vascular flora species present within the study area was considered to be low; a result which can be attributed to the dry seasonal conditions. Vegetation recorded along the access track and in the lay down area was in excellent condition (Astron, 2010).

Astron (2010) report that areas of disturbance are most prevalent near the roadside and within the north eastern portion of the area under application which has been impacted by fire. More than half of the area under application consists of regenerating open low mixed shrubs within the riverbed (sand mining area). Whilst the regenerating shrub species are disturbance colonisers, able to regenerate from seed in the constantly disturbed river sands, the established *Melaleuca argentea* trees have survived seasonal inundation and physical disturbance from material flowing downstream however these areas of established vegetation within the river bed will be avoided during the sand mining process (Dumpna Pty Ltd, 2010).

Buffel grass (*Cenchrus ciliaris*) and one kapok plant (*Aerva javanica*) were recorded on the outer river bank in tall Acacia shrubland over mixed low open shrubland over open hummock grassland (AtCpTe) (Astron, 2010). Both weed species may be more abundant than was apparent during the field survey given the dry conditions however weed management will reduce the risk of the spread or introduction of weed species to non-infested areas.

No Declared Rare Flora Species, Priority Flora or Threatened Ecological Communities were recorded within the study area (Astron, 2010) and it is therefore not likely that the area to be cleared comprises a high level of biological diversity in a regional context.

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

Methodology

Astron (2010)
CALM (2002)
Dumpna Pty Ltd (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

Astron (2010) identified a limited range of fauna habitat types present within the application area which are widespread and well represented regionally. Three distinct habitats which are consistent with the land systems mapping including the vegetation within the riverbed occur within the area under application (Astron, 2010).

There are 5 records of Threatened Fauna recorded within the local area (20 kilometre radius) however the closest record is located 11 kilometres north east of the application area (GIS Database). The results of an

EPBC Protected Matters search conducted by Astron (2010) show that four conservation significant mammal species, the Pilbara Leaf-nosed bat, Northern Quoll, Bilby and Brush-tailed Mulgara and 10 migratory bird species have the potential to occur or utilise the application area however the vegetation and habitats present are well represented on a regional scale and are unlikely to represent significant habitat to these species in a regional context

Astron (2010) did not identify any landscape features within the vegetation survey areas that are considered as representing significant fauna habitat such as rocky shelters, caves, waterholes, gorges, closed forests, trees with hollows or mesa formations. Given that the vegetation and habitats present within the application area are common on both a local and regional scale it is unlikely that the area applied to be cleared represents significant fauna habitat.

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

Methodology Astron (2010)
GIS Database:
- Threatened Fauna

(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) in the local area (20 kilometre radius) (GIS Database).

Astron (2010) conducted a flora survey in July 2010 of the application area. No DRF species were recorded within the clearing permit area and it is therefore not likely that the area to be cleared includes, or is necessary for the continued existence of, rare flora.

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

Methodology Astron (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**
There are no known Threatened Ecological Communities (TEC's) which occur within the application area and the closest known TEC is located approximately 215 kilometres south 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:
- 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 likely to be at variance to this Principle**
The application area falls within the Pilbara IBRA bioregion (GIS Database). Shepherd (2007) reports that approximately 99.95% of the pre-European vegetation still exists in this bioregion.

Beard vegetation associations 619, 647 and 589 retain approximately 100% (see table below) 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.

	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					
647	196,372	196,372	~100	Least Concern	0
619	119,159	119,050	~100	Least Concern	0.2
589	809,754	809,637	~100	Least Concern	1.6
Beard vegetation associations - Bioregion					
647	196,371	196,371	~100	Least Concern	0
619	118,705	118,705	~100	Least Concern	0.2
589	730,718	730,683	~100	Least Concern	1.8

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

Methodology Department of Natural Resources and Environment (2002)
EPA (2000)
Shepherd (2007)
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**
Dumpna Pty Ltd is proposing to clear up to 20 hectares of native vegetation for the purpose of sand extraction from the Turner River. The Turner River is a relatively large watercourse that flows during flood events into the Indian Ocean approximately 20 kilometres downstream.

The vegetation to be impacted within the access road and stockpile area are not considered to be growing in association with a watercourse however the proposed clearing is likely to impact upon two riparian vegetation units associated with the bed and banks of the Turner River which have been identified in a flora survey conducted by Astron (2010).

Sand will be mined from within the watercourse and will require the removal of scattered vegetation unit AtCp(Ma) (regenerating open low mixed shrubs of *Acacia trachycarpa*, *Cajanus pubescens*, *Petalostylis labicheoides*, *Acacia morrisonii* and scattered *Melaleuca argentea* trees). Dumpna Pty Ltd (2010) have identified that sand will be mined in pockets in order to minimise the impact upon this vegetation type requiring the removal of only regenerating species. Established *Melaleuca argentea* trees which have survived seasonal inundation and physical disturbance from material flowing downstream during flood events will not be removed (Astron, 2010). Access in and out of the river bed will also require the removal of a small amount of vegetation type MaAc (*Melaleuca argentea* open low woodland over *Acacia trachycarpa*, *Melaleuca glomerata* shrubland over *Triodia sp* sterile open hummock grasses) from the banks of the watercourse.

Given that only scattered regenerating vegetation within the riverbed and a small area of riparian vegetation on the river bank will be cleared for access ramps and considering that the vegetation types represented are common locally and regionally it is considered that the removal of vegetation growing in association with the watercourse is unlikely to have any significant environmental impacts in a regional context.

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

Methodology Astron (2010)
Dumpna Pty Ltd (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 may be at variance to this Principle

The application to clear for sand extraction is located within the Mallina and River Land Systems (GIS Database). The Mallina land system is described as sandy surfaced alluvial plains supporting soft spinifex (and occasionally hard spinifex) grasslands. Alluvial plains are moderately to highly susceptible to erosion if vegetative cover is seriously depleted (Van Vreeswyk et al., 2004).

The remainder of the application area is located within the River land system (GIS Database). The River land system is described as active flood plains and major rivers supporting grassy eucalypt woodlands, tussock grasslands and soft spinifex grasslands and susceptibility to erosion is high or very high if vegetative cover is removed (Van Vreeswyk et al., 2004).

Dumpna Pty Ltd (2010) have identified that approximately 5 hectares of native vegetation will be cleared for the access road, stockpile area and access ramps. The remaining 15 hectares of vegetation to be removed is scattered regenerating vegetation within the riverbed and removal of this vegetation is unlikely to increase the risk of erosion in this area. Given however that the land systems associated with the areas to be cleared have a moderate to high susceptibility to erosion when vegetative cover is removed there may be an increased risk of wind and water erosion associated with the access road, stockpile area and access ramps particularly during heavy rainfall events. Rehabilitation of the cleared areas under conditions imposed by the *Mining Act 1978* will minimise the risk of soil erosion in the long term.

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

Methodology

Dumpna Pty Ltd (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 closest conservation area is the South West Creek Register of National Estate site which is situated approximately 18 kilometres north of the application area (GIS Database).

Given the distance to the nearest area of conservation significance it is not likely that the clearing will significantly impact on the environmental values of any 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 may be at variance to this Principle

The area under application is located within the Turner River Water Reserve, which was gazetted under the Country Areas Water Supply Act 1947 (CAWS). This area is currently designated 'Policy use not assigned' under the Water Source Protection Classification however it is likely to be classified a Priority 1 Source Protection Area (Department of Water, 2010).

In order to protect the Turner River from degradation the following measures have been recommended by the Department of Water (2010):
- All clearing activities should adhere to established codes of practice and best management practices should be followed.
- Disturbance to riparian vegetation should be managed to maintain foreshore stability and protect riparian habitats.
- There should be no significant alteration of the natural hydrological regime and geomorphology of the river and its catchment.

The area under application is located within a Proclaimed Area and the Pilbara Groundwater Area under the *Rights in Water and Irrigation Act 1914* and any interference with the bed and banks of the water course in this proclaimed area will require a permit from the Department of Water. Advice from the Department of Water (2010) highlights that the proposed clearing for sand extraction is unlikely to have a significant impact on the quality or quantity of groundwater, provided activities are carried out in accordance with Department of Water advice.

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

Methodology

Department of Water (2010)

GIS Database:
- Public Drinking Water Source Areas

Officer James Best

(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 area under application is located within and adjacent to the Turner River. The Turner River is a relatively large watercourse that flows during flood events into the Indian Ocean approximately 20 kilometres downstream.

Local flooding occurs seasonally in the Pilbara region as a result of cyclonic activity and sporadic thunderstorms and it is likely that the Turner River may experience seasonal flooding during high rainfall periods however it is not likely that the proposed clearing will increase the incidence or intensity of this flooding.

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

Methodology GIS Database:
- Hydrography, linear

Officer James Best

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

Comments

There is one Native Title Claim (WC99/3) 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 is one 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 8 November 2010 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received to the proposed clearing.

Methodology GIS Database
- Aboriginal Sites of Significance
- Native Title Claims

4. References

Astron Environmental Services (2010) Turner River M45/1193. Level 1 Vegetation and Flora Survey. Prepared for Dumpna Pty Ltd - August 2010.

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Pilbara 1 (PIL4 - Roebourne 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.

Department of Water (2010). Advice provided to the Department of Mines and Petroleum for Clearing Permit Application CPS 4034/1 on 16 November 2010.

Dumpna Pty Ltd (2010) Turner River Sand Project, Clearing Permit (Purpose Permit) Application. Supporting Documentation.

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.

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.

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.