



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2466/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: **Barrick Gold of Australia**

### 1.3. Property details

Property: M36/208  
Local Government Area: Shire of Leonora  
Colloquial name: Lawlers Gold Mine

### 1.4. Application

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

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

**28:** Open Low Woodland; mulga. According to the Shared Land Information Platform (SLIP, 2007), Beard vegetation association 39 is a low woodland dominated by *Acacia aneura*.

**39:** Shrublands; mulga scrub. According to the Shared Land Information Platform (SLIP, 2007), Beard vegetation association 39 is a scrub dominated by *Acacia aneura* with sub-dominants *A. quadrimarginea*, *Eremophila forrestii* over *Ptilotus obovatus*.

A vegetation flora survey was undertaken over the application area and surrounding vegetation in September 2004 (Jims Seeds, Weeds & Trees, 2004). As a result of this vegetation survey, four vegetation types were identified of which one occurs within the application area.

**Granite Sand Flats:** Flat stretching plains of coarse red granite sands, with occasional *Acacia aneura* and *Acacia quadrimarginea* over ground hugging shrubs including *Senna artisemoides ssp filifolia*, *Euphorbia drummondii*, *Eremophila fraseri*, *Helipterum craspedioides*, *Sida calyxhymania*, *Sida excedentifolia*, *Abutilon oxycarpum*, *Ptilotus aevroides* and *P. obovatus*.

**Clearing Description** Barrick Gold of Australia (Barrick) have applied to clear 43 hectares to extend an Tailings Storage Facility (TSF).

**Vegetation Condition** Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)

**Comment** The condition of vegetation within the application area was observed by the assessing officer during a site visit on 10 June 2008. The assessing officer noted that the area was heavily overgrazed by goats, rabbits and kangaroos and there was a distinct lack of understorey shrubs and grasses. Two minor drainage lines that occur within the area have been cut off both upstream and downstream by existing mining infrastructure which has resulted in ponding of water and some minor erosion. Weeds are present within the application area.

## 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 Eastern Murchison Interim Biogeographic Regionalisation of Australia (IBRA) sub-region (GIS Database). This sub-region is characterised by internal drainage and extensive areas of elevated red desert sandplains with minimal dune development (CALM, 2002). Salt lake systems are associated with the occluded paleodrainage system. Broad plains of red-brown soils and breakaway complexes as well as red sandplains are widespread. Vegetation is dominated by mulga woodlands and is often rich in

ephemerals, hummock grasslands, saltbush shrublands and *Halosarcia* shrublands. The bioregion is rich and diverse in both its flora and fauna but most species are wide ranging and usually occur in adjoining regions (CALM, 2002).

A flora and vegetation survey conducted over the application area and surrounding vegetation identified one vegetation type as occurring within the application area (Jims Seeds, Weeds & Trees, 2004). This vegetation type was extensively recorded within the survey area. Within this vegetation type a total of 44 flora species were identified. It is not expected that all of these flora species would be located within the area applied to clear. The species count recorded is not a particularly high level of floral species diversity compared to that which could be expected given the bioregional description. As a result of a site visit conducted by the assessing officer it was observed that the area is heavily degraded, and is subject to intense overgrazing by feral goats, rabbits and kangaroos. There is very little understorey remaining and signs of erosion are present. These disturbances are likely to result in a very low level of floral and faunal diversity.

The vegetation recorded within this vegetation type is typical of the flora of the East Murchison sub-region. However, the past disturbances and current grazing pressures that occur within the application area suggests that the vegetation of the application area is likely to be low in floral species diversity.

More than 40 per cent of the Murchison's original mammal fauna is now regionally extinct (CALM, 2002). Given the degraded nature of the vegetation within the application area it is unlikely that the area would be high in faunal diversity.

Six alien weed species were identified within the survey area by Jims Seeds, Weeds & Trees (2004), including *Emex australis* (Double Gee), a Declared Weed for some parts of the State (not the Shire of Leonora). Weeds have the potential to alter the biodiversity of an area, competing with native vegetation for available resources and making areas more fire prone. This in turn can lead to greater rates of infestation and further loss of biodiversity if the area is subject to repeated fires. No major infestations were observed during a site visit by the assessing officer, although wild melon (*Citrillus lanatus*) was present at several locations. It is not expected that the clearing of vegetation will lead to an infestation of weeds within the application area or surrounding vegetation if adequate soil hygiene measures are implemented.

Therefore, the vegetation within the application area is highly degraded and not likely to be an area of high biodiversity.

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

**Methodology** CALM (2002)  
Jims Seeds, Weeds & Trees (2004)  
GIS Database:  
- Interim Biogeographic Regionalisation of Australia (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**

The assessing officer has conducted a search of the Western Australian Museum's online fauna database between the coordinates 120.3°E, 22.85°S and 120.8°E, 28.29°S, representing a 50 kilometre square search area around the application area.

This search did not reveal any fauna of conservation significance that may occur within the application area (Western Australian Museum, 2008). During a site visit the assessing officer noted that the value of the vegetation as fauna habitat was poor due to degradation from overgrazing and adjacent mining infrastructure.

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

**Methodology** Western Australian Museum (2008)

**(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, no Declared Rare or Priority flora species have been identified within the application area. The nearest known population is located 15 kilometres north of the application area (GIS Database).

A vegetation survey was conducted by Jims Seeds, Weeds & Trees over the application area and surrounding vegetation in September 2004. This survey involved a desktop assessment of available databases and a field based survey to identify vegetation types and search for conservation significant flora (Jims Seeds, Weeds & Trees, 2004).

As a result of this search, a population of *Baeckea sp.* Melita Station (P3) was located approximately 9.5 kilometres north of the application area, a population of *Eremophila pungens* (P4) was located approximately 2.5 kilometres east of the application area and several populations of *Grevillea inconspicua* (P4) were located on drainage lines, rocky outcrops and creeklines. No species of conservation significance are located within the application area and it is not expected that the proposed clearing will impact on the populations identified above.

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

**Methodology** Jims Seeds, Weeds & Trees (2004)  
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**

According to available databases, no Threatened Ecological Communities (TEC) occur within the application area. The closest TEC occurs approximately 50 kilometres west of the application area (Depot Springs stygofauna community) (GIS Database).

A vegetation survey by Jims Seeds, Weeds & Trees (2004) did not locate any TEC within the application area or within the survey area.

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

**Methodology** Jims Seeds, Weeds & Trees (2004)  
GIS Database:  
- Threatened Ecological Communities

**(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**

According to available databases, the application area falls within the Murchison IBRA Bioregion (GIS Database). This bioregion's vegetation extent remains at approximately 100% of its Pre-European extent (see table). Beard vegetation association's 28 and 39 occur within the application area (GIS Database). These vegetation associations remain at approximately 100% of their Pre-European extent. Whilst neither vegetation association is well represented in conservation estate, their conservation status is under no threat given they both remain virtually uncleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-european % in IUCN Class I-IV Reserves*
IBRA Bioregion – Murchison	28120558	28120558	~100	Least Concern	1.1
Beard veg assoc. – State					
28	395899	395899	~100	Least Concern	0
39	6613602	6613496	~100	Least Concern	7.2
Beard veg assoc. - bioregion					
28	224294	224294	~100	Least Concern	0
39	1148411	1148411	~100	Least Concern	0

\* Shepherd et al. (2006)

\*\* Department of Natural Resources and Environment (2002)

Therefore, the application area is not part of a remnant of native vegetation in an area that has been extensively cleared.

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

**Methodology** Department of Natural Resources and Environment (2002)  
Shepherd et al (2006)

- GIS Databases:  
- Interim Biogeographic Regionalisation of Australia  
- 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 databases, two minor, non-perennial drainage lines occur within the application area (GIS Database).

A site visit by the assessing officer was conducted in June 2008. During this site visit, the assessing officer noted that these two drainage lines are highly degraded, and are cut off by an existing Tailings Storage Facility (TSF) to the west and a road to the north and east. As a result, water no longer flows through either drainage line. Any water falling within the application area ponds in these drainage lines before evaporating.

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

**Methodology** GIS Database:  
- Hydrography, Linear

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

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

The application area has been surveyed by the Department of Agriculture and Food (Pringle et al, 1994). The application area is composed of the Nubev land system (GIS Database):

The Nubev land system is described as gently undulating stony plains, minor limonitic low rises and drainage floors, supporting mulga and halophytic shrublands (Pringle et al, 1994). The Nubev Land System is comprised of five land units of which one is likely to occur within the application area - Stony Plain. Stony plains are gently undulating plains with abundant ironstone and quartz pebble mantles. Soils within this land unit are shallow red earths or red sand on hardpan. This description accurately describes the soils encountered by the assessing officer during a site visit. Pringle et al (1994) describe the land system as prone to overgrazing and subsequent land degradation. This overgrazing was evident during the assessing officer's site visit and some minor soil erosion was observed by the assessing officer within the two drainage lines that occur within the application area.

Post-clearing, the application area will be utilised for mine infrastructure (Tailings Storage Facility). Therefore, the clearing is not likely to promote land degradation.

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

**Methodology** Pringle et al (1994)  
GIS Databases:  
- Pre-European Vegetation

**(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 located approximately 50 kilometres to the north of Bulga Downs pastoral station, which is managed by the DEC for conservation purposes (GIS Database). At this distance it is not likely that the vegetation within the application area provides a buffer to a conservation area, or is important as an ecological link to a conservation area. The vegetation types within the application areas are well replicated in other land systems within the Murchison bioregion. Subsequently, their conservation status is under no threat.

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

**Methodology** GIS Database:  
- CALM Managed Lands and Waters

**(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 waterbodies or watercourses within, or in association with the application area (GIS Database). The application area occurs in a very arid climate. The Bureau of Meteorology have recorded an average yearly rainfall for Leinster of 290.8 millimetres (BoM, 2008), with most rainfall occurring in the summer months between December and March. This rainfall is likely to be associated with low pressure troughs bringing warm moist air from the tropics. Rainfall during these tropical thunderstorms is likely to be short and intense. Surface water run-off in these events is likely to be as sheet flow towards existing natural drainage lines.

The application occurs within a surface water management area (GIS Database). DoW (2007) advise that: 'in line with the administrative agreement between the Water and Rivers Commission (DoW) and the Department of Industry and Resources for mineral exploration and prospecting activities and mining operations in water resource areas of Western Australia - schedule AA1 "Exploration activities or mining operations that may disrupt the natural flow of any watercourse or hydrology of a wetland are prohibited unless written approval is first obtained from the Waters and Rivers Commission (DoW)".' It is the applicant's responsibility to determine whether a Beds and Banks permit is required.

The area is located in a RIWI Act Groundwater area. The proponent is required to obtain permits to extract groundwater in this area.

Groundwater in the application areas ranges from fresh to brackish (GIS Database). Given the small amount of clearing relative to the size of the groundwater basins, it is unlikely that the proposed clearing will lead to increased groundwater salinity.

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

**Methodology** BoM (2008)  
DoW (2007)  
GIS Database:  
- Public Drinking Water Source Areas (PDWSA's)  
- Hydrography, Linear  
- Surface Water Management Areas (DRAFT)  
- 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 is located within the Raeside-Ponton catchment area which is approximately 115,895 square kilometres in size (GIS Database). The removal of 43 hectares of native vegetation within this catchment area represents an extremely small amount of clearing in relation to the size of the catchment.

Given the low annual rainfall experienced by the catchment and its size, the proposed clearing is not likely to lead to an increase in the amount of run-off within the catchment. Therefore, there will not likely be any increase in flood height or duration within the catchment.

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

**Methodology** GIS Database:  
- Hydrographic Catchments - Catchments

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

**Comments**

There is a native title claim over the area under application: WC99/010 (GIS Database). The claim has been registered with the National Native Title Tribunal. However, the mining tenement 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*.

No Aboriginal sites of significance occur within the application area. It is the proponent's responsibility to comply with the *Aboriginal Heritage Act, 1972* and ensure that no sites of aboriginal significance are damaged through the clearing process.

The application occurs in a surface water management area (GIS Database). DoW (2007) advise that "in line with the administrative agreement between the Water and Rivers Commission (DoW) and the Department of Industry and Resources for mineral exploration and prospecting activities and mining operations in water resource areas of Western Australia - schedule AA1 "Exploration activities or mining operations that may disrupt the natural flow of any watercourse or hydrology of a wetland are prohibited unless written approval is first obtained from the Waters and Rivers Commission (DoW)".' It is the applicant's responsibility to determine

whether a Beds and Banks permit is required. The application area is located in a RIWI Act Groundwater area. The proponent is required to obtain permits to extract groundwater in this area.

**Methodology** No submissions were received from interested third parties during the public submission period.  
DoW (2007)  
GIS Database:  
- Native Title Claims  
- Aboriginal Sites of Significance (STATUS)  
- Surface Water Management Areas (DRAFT)

#### 4. Assessor's comments

##### Comment

The proposal has been assessed against the Clearing Principles and has been found not likely to be at variance to Principles (a), (b), (c), (d), (f), (g), (h), (i) and (j) and is not at variance to Principle (e).

It is recommended that should a permit be granted, conditions be imposed on the permit with regard to recording the total area cleared and reporting this area to the Department of Industry and Resources.

#### 5. References

- BoM (2008). Bureau of Meteorology Website - Climate Averages by Number, Averages for LEINSTER AERO.
- Department of Conservation and Land Management (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions.
- 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.
- DoW (2007). Advice to assessing officer, Native Vegetation Assessment Branch, Department of Industry and Resources (DoIR), received 21/12/07. Department of Water, Western Australia.
- Jims Seeds, Weeds & Trees (2004). Flora Survey of the Lawlers Gold Mine Leases, September 2004. Unpublished report prepared for Barrick Gold of Australia by Jims Seeds, Weeds & Trees, Kalgoorlie, 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.
- Pringle HJR, Van Vreeswyk AME and Gilligan SA (1994). An inventory and condition survey of rangelands in the north-eastern Goldfields, Western Australia. Technical Bulletin No. 87. Department of Agriculture, Western Australia.
- Shepherd, D.P. (2006). 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- SLIP (2008). Shared Land Information Platform <http://spatial.agric.wa.gov.au/slip/home.htm> Accessed 17/6/08
- Western Australian Museum (2008). Faunabase - Western Australian Museum, Queensland Museum and Museum & Art Gallery of NT Collections Databases. <http://www.museum.wa.gov.au/faunabase/prod/index.htm> Accessed 17/6/08. Western Australian Museum.

#### 6. Glossary

##### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government.
<b>CALM</b>	Department of Conservation and Land Management, Western Australia.
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia.
<b>DA</b>	Department of Agriculture, Western Australia.
<b>DEC</b>	Department of Environment and Conservation
<b>DEH</b>	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
<b>DEP</b>	Department of Environment Protection (now DoE), Western Australia.
<b>DIA</b>	Department of Indigenous Affairs
<b>DLI</b>	Department of Land Information, Western Australia.
<b>DoE</b>	Department of Environment, Western Australia.
<b>DoIR</b>	Department of Industry and Resources, Western Australia.
<b>DOLA</b>	Department of Land Administration, Western Australia.
<b>DoW</b>	Department of Water
<b>EP Act</b>	Environment Protection Act 1986, Western Australia.
<b>EPBC Act</b>	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
<b>GIS</b>	Geographical Information System.
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia.
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>RIWI</b>	Rights in Water and Irrigation Act 1914, Western Australia.

s.17 Section 17 of the Environment Protection Act 1986, Western Australia.  
TECs Threatened Ecological Communities.

### 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.