



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4607/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Origin Energy Resources Limited**

1.3. Property details

Property: Production Licence L11
Local Government Area: Shire of Irwin
Colloquial name: Beharra Springs Gas Production Facility

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.2		Mechanical Removal	Petroleum Production and Associated Infrastructure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 17 November 2011

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
<p>Beard vegetation associations have been mapped for the whole of Western Australia. One Beard vegetation association has been mapped within the application area:</p> <p>378: Shrublands; scrub-heath with scattered <i>Banksia</i> spp., <i>Eucalyptus todtiana</i> and <i>Xylomelum angustifolium</i> on deep sandy flats in the Geraldton Sandplain Region (GIS Database).</p> <p>Mattiske Consulting Pty Ltd undertook a threatened and priority flora search over the application area in July 2011 and identified one vegetation structural community.</p> <p>H4: Heath dominated by a mix of species including <i>Banksia telmatiaea</i>, <i>Regelia ciliata</i> and <i>Melaleuca seriata</i> with occasional scrub or open scrub of <i>Hakea obliqua</i> subsp. <i>parviflora</i> on grey or brown sand on lower slopes, flats and drainage basins (Mattiske Consulting, 2011).</p>	<p>Origin Energy Resources Limited (Origin) has applied to clear up to 2.5 hectares of native vegetation for the purpose of petroleum production and associated infrastructure. Clearing is for the construction of a new workshop, accommodation camp upgrade, septic system upgrade and vehicle weed hygiene wash down bay at the Beharra Springs Gas Production Facility. The application area is located approximately 31 kilometres south-east of Dongara.</p> <p>Vegetation will be cleared using a dozer, grader and other equipment as required. Vegetation will be stockpiled.</p>	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994).</p> <p>To:</p> <p>Pristine: No obvious signs of disturbance (Keighery, 1994).</p>	<p>The vegetation condition was assessed by botanists from Mattiske Consulting (2011).</p>

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 Leseur Sandplain subregion of the Geraldton Sandplains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). This subregion contains shrub-heaths rich in endemics occurring on a mosaic of lateritic mesas, sandplains, coastal sands and limestones (CALM, 2002). The subregion exhibits extremely high floristic endemism and is also regarded as having particularly high floristic diversity (CALM, 2002).

The vegetation within the application area is broadly mapped as Beard vegetation association 378, which has 64.1% of its pre-European vegetation extent remaining (Shepherd, 2009; GIS Database). Large scale structural vegetation mapping and flora surveying has previously been undertaken by botanists from Woodman

Environmental Consulting (WEC) over an area south of Beharra Springs and the application area (WEC, 2009). Botanists from Mattiske Consulting (2011) conducted a threatened flora search of the application area in July 2011 and described the vegetation present as corresponding to WEC's structural community type H4. Structural community H4 was a dominant plant community in the WEC survey area and was widespread in the locality (WEC, 2009).

No Declared Rare Flora, Threatened Ecological Communities or Priority Ecological Communities were recorded during the flora search undertaken by Mattiske Consulting (2011) or have previously been recorded within the application area (GIS Database).

The original application area contained five locations of the Priority 2 flora species *Schoenus* sp. Eneabba with a total of approximately 30 individual plants (Mattiske Consulting, 2011). Advice from the Department of Environment and Conservation (DEC) stated *Schoenus* sp. Eneabba is known from approximately seven populations and there is very little information in regards to the size of the populations or the total number of plants for this species. The plants within the application area represent a new population and the taking of all plants at this location is considered significant to the conservation of the species (DEC, 2011a). DEC recommended that the south-east corner of the original application area be avoided so four of the five locations of *Schoenus* sp. Eneabba would not be impacted (DEC, 2011a). Following the DEC advice, Origin reduced their application area to exclude the south-east corner as recommended (Origin, 2011). There are now four known locations of the species outside the application area and the clearing is unlikely to result in the localised extinction of this population or significantly impact on the conservation of the species.

The presence of introduced flora species was not recorded during the Mattiske Consulting flora survey except that no Declared Plant species, as listed by the Department of Agriculture and Food, were recorded within the application area (Mattiske Consulting, 2011). Care must be taken to ensure that the proposed clearing activities do not spread or introduce weed species to non-infested areas. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The fauna diversity of the application area is likely to be similar to that of the surrounding area. The fauna habitats provided by the vegetation in community type H4 are likely to occur throughout the Northern Sandplains area where this structural community occurs. There are no notable fauna habitat features within the application area that would encourage a higher level of faunal diversity compared to surrounding areas, such as wetlands, watercourses, ridges or hill tops (Mattiske Consulting, 2011; GIS Database).

Although the application area occurs within a subregion and locality known for its high biodiversity, the vegetation type mapped within the application area is not of elevated conservation significance compared to other vegetation types of the Cooljarloo area (WEC, 2009). The application area is adjacent to the Beharra Springs Gas Production Facility and contains disturbance from existing access tracks and infrastructure (GIS Database). Origin have sought to reduce the impact of the clearing by utilising the existing access tracks as part of the application area (Origin, 2011).

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

Methodology CALM (2002)
DEC (2011a)
Mattiske Consulting (2011)
Origin (2011)
Shepherd (2009)
WEC (2009)
GIS Database:
- IBRA WA (Regions - Subregions)
- Mingenew 1.4 m Orthomosaic - Landgate 2001
- Pre-European Vegetation
- Threatened and Priority Flora
- 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**
No targeted fauna surveys have been undertaken over the application area. The vegetation type identified within the application area, H4, is considered to be widespread in the Northern Sandplains area and not restricted to the surrounding area (WEC, 2009; Mattiske Consulting, 2011). Therefore, the fauna habitats that this vegetation type provides are not likely to be locally restricted.

Nearby wetlands in the Dongara area provide significant habitat for bird species (Australian Heritage Database, 2011). However, the application area is not associated with a wetland (GIS Database) and therefore does not provide this potentially significant fauna habitat.

The application area contains existing disturbance from previous access tracks and is adjacent to the Beharra Springs Gas Production Facility (Origin, 2011). This disturbance somewhat diminishes the quality of fauna habitat and its potential to be significant habitat for native fauna.

A search of the Department of Sustainability, Environment, Water, Population and Communities' (SEWPAC) Protected Matters Database and the Department of Environment and Conservation's (DEC) NatureMap Database using a 10 kilometre buffer revealed two Threatened, five Migratory and two Priority fauna species:

- Australian Bustard (*Ardeotis australis*);
- Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*);
- Cattle Egret (*Ardea ibis*);
- Fork-tailed Swift (*Apus pacificus*);
- Great Egret (*Ardea alba*);
- Malleefowl (*Leipoa ocellata*);
- Rainbow Bee-eater (*Merops ornatus*);
- Rufous Fieldwren (*Calamanthus campestris* subsp. *montanellus*); and
- White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (DEC, 2011b; SEWPAC, 2011).

All of these bird species are highly mobile and/or widely distributed and while the application area may provide some foraging habitat for some of these species, it is unlikely to be core habitat.

Given the relatively small size of the application area and its lack of notable habitat features, it is unlikely to be considered significant habitat for fauna indigenous to Western Australia.

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

Methodology Australian Heritage Database (2011)
DEC (2011b)
Mattiske Consulting (2011)
Origin (2011)
SEWPAC (2011)
WEC (2009)
GIS Database:
- Hydrography, Linear

(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 known records of Declared Rare Flora (DRF) within the application area (GIS Database). The nearest record of DRF is approximately 7 kilometres east (GIS Database).

The desktop survey compiled by Mattiske Consulting (2011) highlighted four DRF species with the potential to occur within the application area. A Threatened and Priority flora search was undertaken over the application area in July 2011 by botanists from Mattiske Consulting and no DRF were recorded (Mattiske Consulting, 2011).

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

Methodology Mattiske Consulting (2011)
GIS Database:
- Threatened and Priority Flora

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

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

A search of available databases revealed there are no known Threatened Ecological Communities (TECs) within the application area (GIS Database). The nearest recorded TEC is located approximately 30 kilometres south-east of the application area (GIS Database). At this distance, the proposed clearing is unlikely to impact on the TEC.

No floristic TECs were recorded in the application area during the flora survey undertaken by botanists from Mattiske Consulting (Mattiske Consulting, 2011).

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

Methodology Mattiske Consulting (2011)
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 clearing application area falls within the Geraldton Sandplains Interim Biogeographic Regionalisation for Australia (IBRA) bioregion in which approximately 45% of the pre-European vegetation remains (see table) (Shepherd, 2009; GIS Database). This gives it a conservation status of 'Depleted' according to the Bioregional Conservation Status of Ecological Vegetation Classes (Department of Natural Resources and Environment, 2002).

The vegetation of the clearing application area has been broadly mapped as Beard vegetation association 378 'Shrublands; scrub-heath with scattered *Banksia* spp., *Eucalyptus todtiana* and *Xylomelum angustifolium* on deep sandy flats in the Geraldton Sandplain Region' (GIS Database). According to Shepherd (2009) approximately 64.1% of Beard vegetation association 378 remains at the state and bioregional levels and 66.6% remains at a subregional level. This vegetation association would be given a conservation status of 'Least Concern' (Department of Natural Resources and Environment, 2002).

Whilst the subregion has been extensively cleared, the proposed clearing of 2.5 hectares of native vegetation is unlikely to be a significant reduction to current vegetation levels. The vegetation under application is not likely to be a significant remnant of vegetation in an area that has been extensively cleared.

	Pre-European Area (ha)*	Current Extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in IUCN Class I-IV Reserves (and Post Clearing %)
IBRA Bioregion – Geraldton Sandplains	3,136,025	1,410,755	~45.0	Depleted	15.4 (34.0)
IBRA Subregion – Leseur Sandplain	1,171,770	503,894	~43.0	Depleted	17.9 (41.2)
Local Government – Shire of Irwin	236,968	117,293	~49.5	Depleted	12.2 (24.4)
Beard Veg Assoc. – State					
378	95,109	60,940	~64.1	Least Concern	14.1 (22.0)
Beard Veg Assoc. – Bioregion					
378	95,109	60,940	~64.1	Least Concern	14.1 (22.0)
Beard Veg Assoc. – Subregion					
378	90,923	60,509	~66.6	Least Concern	14.8 (22.2)

* Shepherd (2009)

** Department of Natural Resources and Environment (2002)

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)
Shepherd (2009)
GIS Database:
- IBRA WA (Regions - Subregions)
- Pre-European Vegetation

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

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

According to available databases there are no watercourses or wetlands within the application area (GIS Database). The vegetation within the application area is not considered to be growing in association with any watercourse or wetland (Mattiske Consulting, 2011).

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

Methodology Mattiske Consulting (2011)
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

There are no watercourses or sand dunes within the application area, which lowers the risk of water and wind erosion (Origin, 2011; GIS Database).

The proposed clearing activities are not likely to result in large areas of disturbed or open land with infrastructure to be constructed on the cleared areas. Origin will also be undertaking the proposed works in a staged approach which reduces the area that is exposed at any one time (Origin, 2011). Given the small size of the proposed activities, the clearing is not likely to result in appreciable land degradation.

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

Methodology Origin (2011)
GIS Database:

- Hydrography, Linear

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

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

The proposed clearing is not located within a conservation reserve (GIS Database). The nearest conservation area is Yandanogo Nature Reserve which is located approximately 4 kilometres west of the application area (GIS Database). The Arrowsmith Lake Area is another nearby conservation area which is located approximately 6 kilometres south-west of the application area (GIS Database). The Arrowsmith Lake Area is listed on the Register of National Estate for its natural values including unique flora and large populations of waterfowl and land birds (Australian Heritage Database, 2011). Despite the close proximity to several conservation areas, it is considered that the proposed clearing is low impact and of a small scale and will not significantly impact on the environmental values of the nearby conservation areas.

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

Methodology Australian Heritage Database (2011)
GIS Database:

- DEC Tenure
- Register of National Estate

(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

There are no surface water bodies within, or in close proximity to, the application area (Origin, 2011; GIS Database). Therefore, it is unlikely the clearing of native vegetation associated with this proposal will cause a deterioration in surface water quality.

According to available databases the application area is not located with a Public Drinking Water Source Area (PDWSA) (GIS Database). The nearest PDWSA is Allanooka - Dongara Water Reserve, which is approximately 27 kilometres north of the application area (GIS Database).

The small area of the proposed clearing is unlikely to cause deterioration in the quality of underground water.

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

Methodology Origin (2011)
GIS Database:

- Hydrography, Linear
- Public Drinking Water Source Areas (PDWSAs)

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

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

The application area is located within the Arrowsmith River catchment area of the Greenough River basin (GIS Database). Given the size of the area to be cleared (2.5 hectares) in relation to the size of the catchment area (160,418 hectares) (GIS Database), the proposed clearing is not likely to increase the potential of flooding on a local or catchment scale.

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 one Native Title Claim (WC04/2) 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 petroleum 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 19 September 2011 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received.

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

4. References

- Australian Heritage Database (2011) Department of Sustainability, Environment, Water, Population and Communities. <http://www.environment.gov.au/heritage/index.html> (Accessed 17 October 2011).
- CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions. Geraldton Sandplain 3 (GS3 - Lesueur Sandplain Subregion). Department of Conservation and Land Management, Western Australia.
- DEC (2011a) Clearing Permit Advice for CPS 4607/1 from Species and Communities Branch. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Mines and Petroleum. Department of Environment and Conservation, Western Australia.
- DEC (2011b) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. <http://naturemap.dec.wa.gov.au/default.aspx> (Accessed 18 October 2011).
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske Consulting (2011) Threatened and Priority Flora Search of the Beharra Springs Office Upgrade and Wolf Dwindip 1 Survey Areas. Unpublished Report Prepared by Mattiske Consulting Pty Ltd for Origin Energy Limited, August 2011.
- Origin (2011) Documentation Supporting Clearing Permit Application for CPS 4607/1. Prepared by Origin Energy Resources Limited, September 2011.
- SEWPAC (2011) Protect Matters Search Tool. Coordinates 115-08-30 E, 29-27-43 S, Within a 10 Kilometre Radius. Search Conducted 18 October 2011.
- Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- WEC (2009) Cooljarloo West Project Flora and Vegetation Assessment. Report Prepared by Woodman Environmental Consulting for Tiwest Pty Ltd, September 2009.

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.