GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5179/1
Permit Holder:	Shire of Moora
Duration of Permit:	21 December 2012 – 21 December 2017

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. **Purpose for which clearing may be done**
   Clearing for the purpose of road upgrades and drainage.

2. **Land on which clearing is to be done**
   Wirrilda Road reserve, Koojan (PIN: 11428655 and PIN: 11428656)
   Lot 3528 on Deposited Plan 206043, Koojan

3. **Area of Clearing**
   The Permit Holder must not clear more than 0.5 hectares of native vegetation within the area shaded yellow on attached Plan 5179/1.

4. **Application**
   This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. **Type of clearing authorised**
   This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Local Government Act 1995* or any other written law.

6. **Compliance with Assessment Sequence and Management Procedures**
   Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

7. **Avoid, minimise etc clearing**
   In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:
   (a) avoid the clearing of native vegetation;
   (b) minimise the amount of native vegetation to be cleared; and
   (c) reduce the impact of clearing on any environmental value.

8. Fauna management

(a) Prior to undertaking any clearing authorised under this Permit, the area(s) shall be inspected by a *fauna specialist* who shall identify *habitat tree(s)* suitable to be utilised Carnaby's cockatoo (*Calyptorhynchus latirostris*).

(b) Prior to clearing, any *habitat tree(s)* identified by condition 8(a) shall be inspected by a *fauna specialist* for the presence of fauna listed in condition 8(a).

(c) Where fauna are identified in relation to condition 8(b) of this Permit, the Permit Holder shall ensure that:

(i) no clearing of the identified *habitat tree(s)* occurs, unless first approved by the CEO

(ii) where fauna are identified in relation to condition 8(b) of this Permit, the Permit Holder shall ensure that no taking of identified fauna occurs unless first approved by the CEO.

PART III - RECORD KEEPING AND REPORTING

9. Records must be kept

The Permit Holder must maintain the following records in relation to fauna management pursuant to condition 8 of this Permit:

(a) the location of each habitat tree identified recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;

(b) the species name of fauna reasonably likely to utilise, or that have been observed utilising, the habitat tree(s).

10. Reporting

(a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:

(i) of records required under condition 9 of this Permit; and

(ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.

(b) If no clearing authorised under this Permit was undertaken 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June.

(c) Prior to 21 September 2017, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

fauna specialist means a person with training and specific work experience in fauna identification or faunal assemblage surveys of Western Australian fauna; and

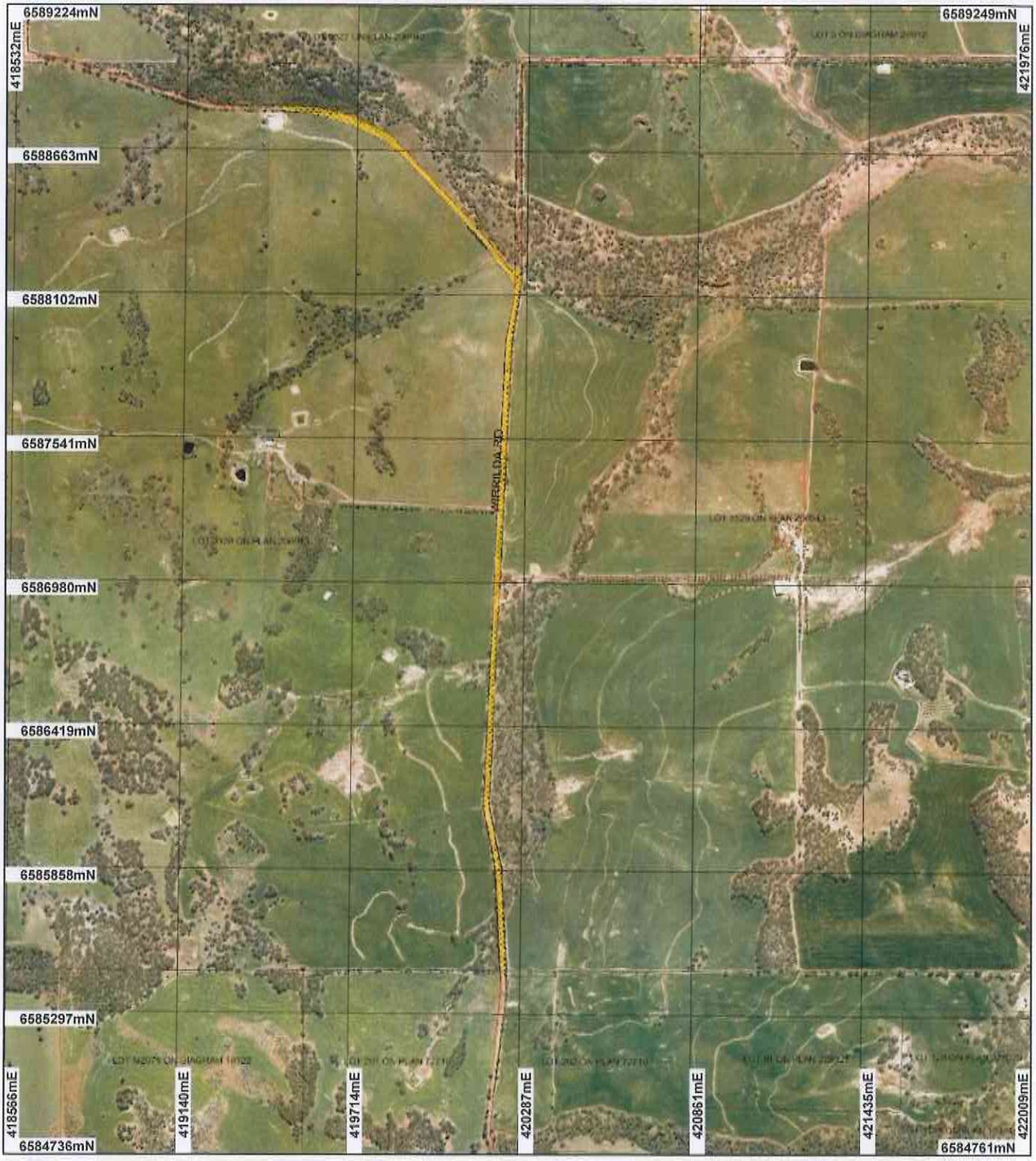
habitat tree(s) means trees that have a diameter, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater, that contains or has the potential to develop hollows or roosts suitable for native fauna.

M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

Officer delegated under Section 20
of the Environmental Protection Act 1986

29 November 2012

Plan 5179/1



LEGEND

- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Cadastre for labelling
- Moora 50cm Orthomosaic - Landgate 2008

N

0 500 m

Scale 1:20000
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Warnock Date 29/11/12

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowleged by the agency acronym in the legend.

Department of Environment and Conservation

Our environment, our future

* Project Data. This data has not been quality assured. Please contact map author for details.

Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5179/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Moora

1.3. Property details

Property: ROAD RESERVE (KOOJAN 6510)
LOT 3528 ON PLAN 206043 (House No. 371 WIRRILDA KOOJAN 6510)
Local Government Area: Shire of Moora
Colloquial name: Wirrilda Road reserve, Koojan

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.5		Mechanical Removal	Road construction or maintenance

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 29 November 2012

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
Beard Vegetation Association: 7 - Medium woodland; York Gum (E. loxophleba) & wandoo (Shepherd et al. 2001).	The application is to clear 0.5 hectares of native vegetation within the Wirrilda Road reserve and Lot 3528 on Deposited Plan 206043, Koojan, for the purpose of road upgrade and drainage. The vegetation consists of sparse Wandoo woodland with sparse shrubland of Acacia, Hakea and Hypocalymma species.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994) To Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Vegetation description and condition was determined through aerial imagery and site inspection (DEC 2012).

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal is not likely to be at variance to this Principle

The application is to clear up to 0.5 hectares of native vegetation within the Wirrilda Road reserve and Lot 3528 on Deposited Plan 206043, Koojan, for the purpose of road upgrade and drainage. The vegetation under application is in completely degraded to good (Keighery 1994) condition.

The application area is located within a highly cleared and fragmented landscape. The local area has approximately 10 per cent native vegetation remaining. The road reserve is within a landscape that has been impacted by nearby agricultural land uses and road networks.

There are numerous records of priority flora within the local area (10 kilometre radius). The closest record of priority flora located on the same soil and vegetation type as the application area is Calothamnus sp. (priority 4), which is located approximately 3.8 kilometres northwest of the application area. The proposed clearing is unlikely to impact upon this species.

Trees containing hollows suitable to be utilised by fauna were observed during a Department of Environment and Conservation site inspection (DEC 2012). Several Carnaby's Cockatoos were observed during this site inspection.

Although the area under application is located within an extensively cleared landscape and may contain trees suitable for breeding cockatoos, the majority of the area under application is in a completely degraded condition and contains very limited species diversity.

Therefore the proposed clearing is not likely to be at variance to this principle.

Methodology

References:
DEC 2012
Keighery 1994
GIS datasets:
- Moora 50cm Orthomosaic - Landgate 2008
- NLWRA, Current extent of Native Vegetation
- Pre European Vegetation
- SAC Biodatasets
- Soils Statewide

(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 may be at variance to this Principle

The application area is located within a confirmed breeding area of Carnaby's Cockatoo (Calyptorhynchus latirostris; rare or likely to become extinct, Wildlife Conservation Act 1950; endangered, Environment Protection and Biodiversity Conservation Act 1999). The vegetation under application comprises York gum and Wandoo. Both of these species are utilised as habitat by Carnaby's Cockatoo (DSWEPC 2011). Trees containing hollows suitable to be utilised by fauna were observed during a Department of Environment and Conservation site inspection and several Carnaby's Cockatoos were observed.

Fauna management practices requiring the applicant to check habitat trees prior to clearing will ensure that no fauna is harmed during the clearing process.

Given the above, this proposed clearing may be at variance to this principle.

Methodology

References:
DSWEPC 2011
GIS datasets:
- Carnaby's Cockatoo - Confirmed Breeding Areas.
- NLWRA, Current extent of Native Vegetation

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments

Proposal is not likely to be at variance to this Principle

There are four rare flora species located within the local area (10 kilometre radius) but only two species are located on the same soil and vegetation complex as the application area. The closest recorded species, Chorizema sp, was located approximately 10 kilometres east of the application area. There is no ecological linkage between this record and the application area. This species is found in red loam, brown sandy clay and in scrub or open tree mallee (DEC 2009). Given that this habitat is unrepresented in the application area, it is unlikely that the application area would provide habitat.

Given the above, it is unlikely that the proposed clearing is at variance to this principle.

Methodology

References:
DEC 2009
GIS datasets:
- Moora 50cm Orthomosaic - Landgate 2008
- NLWRA, Current extent of Native Vegetation
- Pre European Vegetation
- SAC Biodatasets
- Soils Statewide

(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 records of threatened ecological communities within 10 kilometres of the application area and

therefore the proposed clearing is not likely to be at variance to this principle.

Methodology GIS datasets:
- SAC Biodatasets

(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 is located within an extensively cleared and fragmented landscape. The Shire of Moora retains approximately 16 per cent of pre-European levels of vegetation and the local area retains approximately 10 per cent native vegetation.

Beard vegetation type 7 is poorly represented with approximately 12 per cent of the pre-European extent remaining within the bioregion. Approximately one per cent of this is located within DEC managed lands.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

The area under application is located within an area that has been extensively cleared however due to the majority of the area being completely degraded it is not considered to be a significant remnant.

The proposed clearing is unlikely to be at variance to this principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Avon Wheatbelt	9 517 110	1 732 027	18	10
Shire*				
Shire of Moora	376 192	59 426	16	22
Beard Vegetation Association in Bioregion*				
7	114 190	17 225	12	1

(Government of Western Australia 2011)

Methodology References:
Commonwealth of Australia 2001
(Government of Western Australia 2011)
GIS datasets:
- Moora 50cm Orthomosaic - Landgate 2008
- NLWRA, Current extent of Native Vegetation
- Pre European Vegetation
- SAC Biodatasets
- Soils Statewide

(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

There is one minor, perennial watercourse intersecting the application area. However, the purpose of the proposed clearing is to upgrade an existing road and therefore there is likely to be road side infrastructure, such as drains and culverts, already in place to minimise impacts to this watercourse.

Therefore the proposed clearing is not likely to be at variance to this principle.

Methodology GIS datasets:
- Hydrography, Linear
- ANCA wetlands
- RAMSAR wetlands

(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 is located over two soil types. The first soil type is Qb29 which Northcote et al (1960-1968) describes as rolling to hilly with some steep slopes; gneissic rock outcrops common: chief soils are hard neutral red soils with others. The other soil type, Uf1, Northcote et al (1960-1968) describes as undulating terrain with

ridges, spurs, and lateritic mesas and buttes: chief soils on the broad undulating ridges and spurs are hard, and also sandy, neutral, and also acidic, yellow mottled soils all containing ironstone gravels.

Given the small, linear area under application and the existing road infrastructure it is unlikely that land degradation would be a significant issue and the proposed clearing is therefore unlikely to be at variance to this principle.

Methodology References:
Northcote et al 1960-68
GIS datasets:
- Soils statewide

(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**
There is one unnamed nature reserve located approximately 9.5 kilometres east of the application area. There is no ecological linkage between the application area and this nature reserve. Therefore, this application is unlikely to be at variance to this principle.

Methodology GIS datasets:
- DEC Tenure

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments **Proposal is not likely to be at variance to this Principle**
One minor, perennial watercourse intersects the application area, with several others minor watercourses surrounding the area. During the works, the proposed clearing may cause short term water quality issues, such as localised surface water sedimentation; however, these issues are likely to be minimal as existing road infrastructure will prevent any significant water quality issues. Therefore, the proposed clearing is unlikely to be at variance to this principle.

Methodology GIS datasets:
- Hydrography, linear

(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**
Given the linear shape of the application area, the proposed clearing is unlikely to cause or exacerbate flooding and therefore is not likely to be at variance to this principle.

Methodology GIS datasets:
- Hydrography, linear

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

Comments

The applicant has advised that due to the increase in heavy haulage traffic the Shire of Moora proposes to upgrade the area under application to a 7 metre wide pavement with 1.5 metre shoulders. The centre line of the road will be offset within the road reserve to allow for as little vegetation as possible to be removed (Shire of Moora 2012a).

No public submissions have been received in responses to this application.

The Shire of Moora has obtained a letter from the owner of Lot 3528, consent to the resumption of land by the Shire for the purpose of roadworks (Shire of Moora 2012b).

Methodology References:
Shire of Moora 2012a
Shire of Moora 2012b

4. References

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: http://naturemap.dec.wa.gov.au/. Accessed 14/08/2012
DEC (2009) Prostrate flame flower (Chorizema humile) Recovery Plan. Commonwealth Department of Environment, Water, Heritage and the Arts, Canberra.

DEC (2012) Site Inspection Report for Clearing Permit Application CPS 5179/1, Wirrilda Road reserve and Lot 3528 on Deposited Plan 206043, Koojan. Site inspection undertaken 27 August 2012. Department of Environment and Conservation, Western Australia (DEC REF: A539776).
DSEWPC (2011) Draft Referral Guidelines for three threatened black cockatoo species, July 2011. Department of Sustainability, Environment, Water, Populations and Communities. Commonwealth of Australia.
Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
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.
Shire of Moora (2012) Clearing Permit Application CPS 5179/1 - Wirrilda Road reserve and Lot 3528 on Deposited Plan 206043 Koojan (DEC REF: A527597).
Shire of Moora (2012b) Land resumption authorisation of Lot 3528 on Deposited Plan 206043, Koojan (DEC Ref:A570614)

5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)