



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 5799/1
File Number: 2011/006905-1
Duration of Permit: From 25 January 2014 to 25 January 2016

PERMIT HOLDER

Shire of Westonia

LAND ON WHICH CLEARING IS TO BE DONE

Carrabin-Westonia Road reserve PIN 11712551 (WESTONIA 6423)
Carrabin-Westonia Road reserve PIN 11726656 (WESTONIA 6423)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.18 hectares of native vegetation within the area hatched yellow on attached Plan 5799/1.

CONDITIONS

1. Weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

DEFINITIONS

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

fill means material used to increase the ground level, or fill a hollow;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in the former Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.

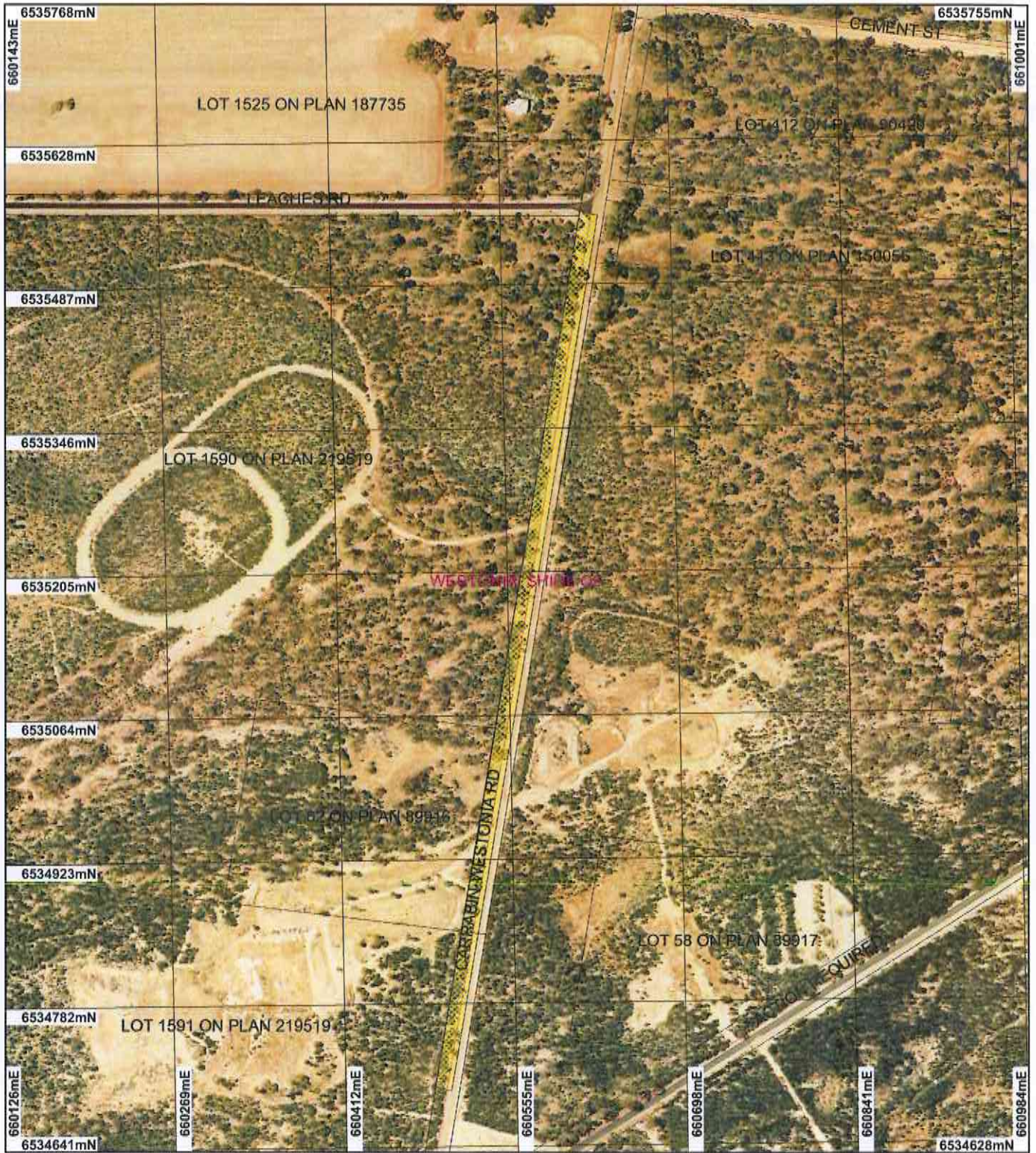
A handwritten signature in cursive script, appearing to read "M Warnock", written over a horizontal line.

M Warnock
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

27 December 2013

Plan 5799/1



LEGEND

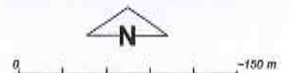
Clearing Instruments

- Areas Approved to Clear
- Road Centrelines
- Cadastre

Cadastre for labelling

- Local Government Authorities

Westonia 50cm Orthomosaic - Landgate 2004



Scale 1:5000

(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 27/12/13

M Warnock

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 acknowledged by the agency acronym in the legend.



Government of Western Australia
Department of Environment Regulation

WA Crown Copyright 2002



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5799/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Westonia

1.3. Property details

Property: CARRABIN-WESTONIA ROAD RESERVE (WESTONIA 6423)
Local Government Area: Shire of Westonia

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 27 December 2013

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: 36 - Shrublands; thick, acacia-casuarina alliance (Shepherd et al. 2001).	The clearing consists of 0.18 hectares of native vegetation within Carrabin-Westonia Road reserve, Westonia, for the purpose of road widening.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The application is to clear 0.18 hectares of native vegetation for the purpose of road widening.
Beard Vegetation Association: 536 - Medium woodland; morrell and rough fruited mallee (Eucalyptus corrugata) (Shepherd et al. 2001).		To	An application was submitted for a proposed clearing of 3.5 hectares along an 8.5 kilometre stretch of Carrabin-Westonia Road reserve. The application has been amended and reduced to 0.18 hectares of proposed clearing along the west side of a 900 metre portion at the northern end of the originally applied area.
		Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994).	The vegetation description and condition were determined through aerial imagery and Department of Parks and Wildlife advice (DPaW 2013).

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 amended application is to clear up to 0.18 hectares of native vegetation over approximately 900 metres of the west side of Carrabin-Westonia Road reserve, Westonia, for the purpose of road widening.

Numerous priority flora species are recorded within the local area (10 kilometre radius). There are six species of priority 3 and 4 flora on the same mapped soil and vegetation type as the application area ranging from 350 metres to 5 kilometres from the application area. The application area may provide habitat for these priority flora species, however the conservation status of these species is not likely to be affected by the proposed clearing.

There are four rare flora species mapped within the local area (10 kilometre radius), the closest of which is located approximately 150 metres from the application area. There are several populations of this species within close proximity to the application area occurring on the same mapped soil and vegetation type. A targeted flora survey was conducted on 19 December 2013 and this species was not found within the application area (Fry 2013). The application area does not contain suitable habitat for the remaining three rare flora species.

Carrabin-Westonia Road is mapped as having medium high to high conservation value on both sides of the road (RCC 2007). The vegetation structure is relatively intact, supports several native species and has few weeds.

The local area (10 kilometre radius) is extensively cleared for agriculture and supports approximately 25 percent native vegetation cover. The application area has been mapped as Beard Vegetation Associations 36 and 536, which retain approximately 24 and 36 per cent of their respective pre-European extents within the Avon Wheatbelt bioregion (Government of Western Australia 2013).

The application area is adjacent to large remnants of vegetation which are likely to provide significant fauna habitat. The proposed clearing is not likely to significantly impact fauna in this area.

The disturbance caused by the proposed clearing will increase the risk of weeds being introduced into the adjacent vegetation. Weed management practices will assist in mitigating this risk.

Considering the small size and lineal nature of the proposed clearing and the availability of habitat in adjacent vegetation remnants in equal or better condition, the area under application is not likely to contain high biodiversity values in comparison to other vegetation remnants in the local area.

Therefore, the application is not likely to be at variance to this principle.

Methodology References:
Government of Western Australia 2013
RCC 2007
GIS Databases:
- Pre-European Vegetation
- SAC Biodatasets
- Soils, Statewide
- Westonia 50cm Orthomosaic - Landgate 2004

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments **Proposal is not likely to be at variance to this Principle**
There are five recorded conservation significant fauna species within the local area (10 kilometre radius); Forest Red-Tailed Black Cockatoo (*Calyptorhynchus banksii* subsp. nano; rare or likely to become extinct, Wildlife Conservation Act 1950 (WC Act); Vulnerable, Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)), Malleefowl (*Leipoa ocellata*; rare or likely to become extinct, WC Act; Vulnerable, EPBC Act), Rainbow Bee-Eater (*Merops ornatus*; Migratory, EPBC Act), Peregrine Falcon (*Falco peregrinus*; Other Specially Protected Fauna, WC Act), Tree-stem Trapdoor Spider (*Aganippe castellum*; Priority 4) (DPaW 2007-).

The Forest Red-Tailed Black Cockatoo's distribution does not extend as far east as the proposed clearing, and therefore this record is likely to be an incorrect recording. Carnaby's Cockatoo (*Calyptorhynchus latirostris*; rare or likely to become extinct, WC Act; Endangered, EPBC Act) has not been recorded within the local area (10 kilometre radius) and the application area does not contain suitable trees for breeding (Fry 2013).

Malleefowl occur within shrublands dominated by acacia, and occasionally in woodlands dominated by eucalypts such as Wandoo, Marri and Mallet (Benshemesh 2007). Malleefowl are unlikely to construct mounds and breed within the application area given the proximity of the road and the surrounding vegetation in better condition than the application area.

The proposed clearing is adjacent to large remnants of vegetation which are likely to provide significant fauna habitat. The proposed clearing is not likely to significantly impact fauna in this area.

Considering the above, and the small size and lineal nature of the application area, the vegetation under application is not likely to provide significant fauna habitat.

Therefore, the application is not likely to be at variance to this principle.

Methodology References:
Benshemesh 2007
DPaW 2007-
GIS Databases:
- Westonia 50cm Orthomosaic - Landgate 2004

(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 mapped within the local area (10 kilometre radius), the closest of which is located approximately 150 metres from the application area. There are several populations of this species within close proximity to the application area occurring on the same mapped soil and vegetation type.

This species is known from 24 natural populations within the central eastern Wheatbelt. Fourteen of these populations occur on road reserves. This species occurs on soil types from sandy loams to loams and clays in open mallee woodland with a mixed Acacia scrub understorey (DEC 2008). There is evidence of this species favouring disturbed areas and can be considered a disturbance opportunist (DPaW 2013). A targeted flora survey was conducted on 19 December 2013 and this species was not found within the application area.

The application area does not contain suitable habitat for the remaining three rare flora species.

Considering the above, the application is not likely to be at variance to this principle.

Methodology References:

DEC 2008

DPaW 2013

GIS Databases:

- 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 (TEC) within the local area (10 kilometre radius). The closest mapped TEC is approximately 200 kilometres from the application area.

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

Methodology GIS Databases:

- 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

Aerial photography (Westonia 50cm Orthomosaic - Landgate 2004) indicates the local area (10 kilometre radius) is approximately 25 percent vegetated.

The IBRA Bioregion (Avon Wheatbelt) and the local government agency (Shire of Westonia) retain approximately 19 percent and 40 percent of their respective pre-European extents (Government of Western Australia 2013).

The application area is mapped as Beard Vegetation Associations 36 (approximately one quarter of the application area) and 536, which retain approximately 72 785 hectares (24 percent) and 3 970 hectares (36 percent) of their pre-European extents within the Avon Wheatbelt IBRA Bioregion respectively.

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

Although the proposed clearing is within an extensively cleared area, the application area is not considered to be significant as a remnant, due to the small size, lineal nature, level of disturbance and the availability of fauna and flora habitat in better condition in adjacent vegetation remnants.

Therefore, the proposed clearing is not likely 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	1 778 407	19	10
Shire*				
Shire of Westonia	331 938	130 985	40	19
Beard Vegetation Association in Bioregion*				
36	300 997	72 785	24	13
536	11 171	3 970	36	32

*Government of Western Australia 2013

Methodology References:
Commonwealth of Australia 2001
Government of Western Australia 2013
GIS Databases:
- NLWRA, Current extent of Native Vegetation
- Pre-European Vegetation
- Westonia 50cm Orthomosaic - Landgate 2004

(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 are numerous watercourses located within the local area (10 kilometre radius), however there are no watercourses intersecting the application area and the proposed clearing is not likely to involve any riparian vegetation.

Therefore, the application is not likely to be at variance to this principle.

Methodology GIS Databases:
- 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**
Approximately two thirds of the application area (northern portion) has soil mapped as Oc33, which Northcote et al (1960 - 1968) describes as undulating plains with some low gilgais: chief soils seem to be hard alkaline red soils in intimate and complex association with calcareous earths.

The remaining third of the application area (southern portion) has soil mapped as Ms8, which Northcote et al (1960 - 1968) describes as Gently sloping to gently undulating plateau areas or uplands with long and very gentle slopes and, in places, abrupt erosional scarps: chief soils are (i) on depositional slopes, sandy yellow earths containing some ironstone gravels, and yellow earthy sands often with ironstone gravels at depths below 6-7ft; and (ii) on erosional ridges and slopes, ironstone gravels, all underlain by hardened mottled-zone material by depths of 12-24 in.

The mean annual rainfall mapped over the application area is 400mm.

Given the linear area under application and as the land will be compacted and maintained as a road, the proposed clearing is not likely to result in appreciable land degradation.

Therefore, the application is not likely to be at variance to this principle.

Methodology References:
Northcote et al. 1960 - 1968
GIS Databases:
- Mean annual rainfall
- 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 may be at variance to this Principle

There are several DPaW managed lands within the local area (10 kilometre radius). The closest of these is Carrabin Nature Reserve, which is located approximately 850 metres from the application area.

The proposed clearing is unlikely to have a direct impact on any conservation areas. However, there is a risk of clearing activities spreading weeds into surrounding vegetation remnants which act as ecological stepping stones between conservation areas, which may result in indirect impacts to conservation areas.

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

Appropriate weed control actions will help to mitigate this risk.

Methodology GIS Databases:
- DEC Tenure

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

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

The groundwater salinity within the application area is mapped as highly saline with 14000 - 35000 mg/L of Total Dissolved Solids. Given the linear area under application and that the majority of the application area is adjacent to vegetation, deterioration in underground water is likely to be negligible.

The proposed clearing is unlikely to impact upon surface water quality as there are no watercourses mapped in close proximity and the clearing is expected to be completed in dry summer months.

Given the above, the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Databases:
- Groundwater Salinity
- Hydrography, Linear
- Westonia 50cm Orthomosaic - Landgate 2004

(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

Considering the small size and lineal nature of the proposed clearing, the applied clearing is not likely to cause or exacerbate flooding and is therefore not likely to be at variance to this principle.

Methodology GIS Databases:
- Hydrography, Linear

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

Comments

The application area is located within the Westonia Groundwater Area covered by the Rights in Water and Irrigation Act 1914.

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

Methodology GIS Databases:
- RIWI Act areas

4. References

- Benshemesh (2007) National Recovery Plan for Malleefowl. Department for Environment and Heritage, South Australia.
Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
DEC (2008) Resinous Eremophila (Eremophila resinosa) Interim Recovery Plan 2008-2013. Interim Recovery Plan No. 266. Department of Environment and Conservation.
DPaW (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.der.wa.gov.au/>. Accessed 10/10/2013.
DPaW (2013) Regional advice received for Clearing Permit Application CPS 5799/1. Received 1/11/2013. Department of Parks and Wildlife, Western Australia. DER REF: A691299.
Fry (2013) Flora Survey Conducted on Carrabin - Westonia Road, Shire of Bruce Rock, 20 December 2013 (DER Ref: A708471).

Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. 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.

RCC (2007) Roadside Vegetation and Conservation Values in the Shire of Westonia. Roadside Conservation Committee, Western Australia.

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.

5. Glossary

Term	Meaning
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation (now DER)
DER	Department of Environment Regulation (formerly DEC)
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