



1. Application details

1.1. Permit application details

Permit application No.: 2316/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Trevor John Waugh

1.3. Property details

Property: LOT 9185 ON PLAN 201680 (YANMAH 6258)
 LOT 9185 ON PLAN 201680 (YANMAH 6258)
 LOT 9185 ON PLAN 201680 (YANMAH 6258)
 ROAD RESERVE (MANJIMUP, SHIRE OF)
 ROAD RESERVE (GLENORAN 6258)

Local Government Area: Shire Of Manjimup

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.5	22	Mechanical Removal Mechanical Removal	Fence Line Maintenance Fence Line Maintenance

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: - Unit 3 (Nornalup): Medium forest; jarrah ? marri; - Unit 1114 (Nornalup): Tall forest; karri & marri (Corymbia calophylla) (Hopkins et al., 2001; Shepherd, 2006). Mattiske: - Bevan (BE1): Tall open forest of Corymbia calophylla-Eucalyptus marginata subsp. marginata on uplands in perhumid and humid zones; - Crowea (CRb): Tall open forest of Corymbia calophylla-Eucalyptus diversicolor on upper slopes with Allocasuarina decussata-Banksia grandis on upper slopes in hyperhumid and perhumid zones; (Havel & Mattiske Consulting, 1998).	The proposal involves the clearing of approximately 2.5 hectares and 22 native trees for the purpose of fence line erection and fire breaks. The vegetation under application comprises isolated boundary trees and the edge of a forest block, surrounded by cleared paddock.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Description of the clearing application area is based on orthomosaic mapping.

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 at variance to this Principle**

The proposal is for the clearing of approximately 2.5 hectares along the perimeter of an isolated private forest and 22 native trees along the property boundary fence. The boundary fence line is predominantly parkland cleared, whilst the vegetation under application within the native forest appears to be in good condition (Keighery, 1994).

The area under application is located within the Warren Bioregion, which retains approximately 86.8% (Shepherd, 2006) of the pre-clearing extent. The local area (10 kilometre radius) is approximately 75% vegetated, with the majority of that vegetation managed by DEC as State Forest.

Given the scale (2.5 hectares & 22 native trees) and condition of the vegetation under application, the proposed clearing does not hold a high level of biological diversity and is not at variance to this Principle.

Methodology Keighery (1994);
Shepherd (2006);

GIS Databases:
- CALM Managed Lands and Waters - CALM 1/6/04;
- Manjimup 50cm ORTHOMOSAIC - DLI04

(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 at variance to this Principle**

There are several records of threatened and priority fauna species within a 10 kilometre radius of the proposed clearing; however given the scale (2.5 hectares & 22 trees) and the percentage of surrounding remnant vegetation (75% in 10 kilometre radius), the area under application is not considered to be significant habitat for fauna indigenous to Western Australia and is therefore not at variance to this Principle.

Methodology Keighery (1994);

GIS Databases:
- Threatened Fauna - SAC Biodataset - 22/8/07;
- CALM Managed Lands and Waters - CALM 1/6/04
- Manjimup 50cm ORTHOMOSAIC - DLI04

(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**

Several populations of *Caladenia christineae* (DRF) and *Caladenia harringtoniae* (DRF) have been recorded within 10 kilometres of the area proposed for clearing; however given the scale (2.5 hectares & 22 trees) and parkland cleared nature of the area under application, the proposed clearing is unlikely to be necessary for the continued existence of rare flora and is therefore not likely to be at variance to this Principle.

Methodology GIS Databases:
- DEFL, SAC Bio Dataset - 22/8/07

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

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

There are no known records of Threatened Ecological Communities (TECs) within 10 kilometre radius of the proposed clearing; therefore the area under application is unlikely to comprise the whole or part of, or be necessary for the maintenance of local TECs, and is therefore not likely to be at variance to this Principle.

Methodology GIS Databases:
- TEC Database, SAC Bio Dataset - 22/8/07;
- Threatened Ecological Communities - CALM

(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**

Pre-European	Current extent (ha)	Remaining %	% in reserves/DEC-	area (ha)
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managed land

IBRA Region:				
- Warren	833,981	663,141	79.5*	82.4
Local Government Authority:				
-Shire of Manjimup	696,702	589,728	84.6*	59.4
Vegetation type:				
Beard:				
- Unit 3 (Nornalup)	2,661,403	1,846,588	69.4*	26.4
- Unit 1144 (Nornalup)	160,315	127,463	79.5*	42.6
Mattiske:				
- Bevan (BE1)	767,844	657,120	85.6**	N/A
- Crowea (CRb)	527,433	428,454	81.2**	N/A

* (Shepherd, 2006)

** (Mattiske & Havel, 1998)

The application is located within the Warren Bioregion in the Shire of Manjimup. The extent of native vegetation in these areas is 79.5% and 84.6% (Shepherd, 2006), respectively.

Given the percentage of vegetation remaining in the local area (75% in 10 kilometre radius), the proposed clearing is not considered significant remnant vegetation in an extensively cleared area and is therefore not at variance to this Principle.

Methodology Shepherd (2006);
Mattiske & Havel (1998);

GIS databases:

- Interim Biogeographic Regionalisation of Australia - EM 18/10/00;
- Pre-European Vegetation - DA 01/01;
- Mattiske Vegetation - CALM 24/3/98;
- Local Government Authorities - DLI 8/7/04

(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 at variance to this Principle**

A tributary of the Mount Brook traverses the property; however the area under application does not lie within or adjacent to locally mapped watercourses or wetlands; therefore the proposal is not in association with a watercourse or wetland and is not at variance to this Principle.

Methodology GIS Databases:
- Hydrography, Linear - DoE 1/2/04;
- Geomorphic Wetlands, Augusta to Walpole - DOE 18/6/03;
- Manjimup 50cm ORTHOMOSAIC - DLI04

(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 soils of the area under application are described as hard and sandy, neutral and also acidic, yellow and yellow mottled soils with smaller areas of red earths (Northcote et al., 1960-68).

The groundwater salinity is 500 to 1000 mg/L and the hydrogeology consists of rocks of low permeability with local aquifers in fractured and weathered rocks.

Given the scale (2.5 hectares and 22 native trees) and percentage of surrounding remnant vegetation (75% in 10 kilometre radius), the proposed clearing is unlikely to cause appreciable land degradation and therefore is not likely to be at variance to this Principle.

Methodology Northcote et al. (1960-68);
GIS Databases:
- Salinity Risk LM25m - DOLA 00;

- Hydrogeology, Statewide - DoW;
- Groundwater Salinity, Statewide - DoW

(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 majority of the local area (75% in 10 kilometre radius) is managed by the DEC as State Forest; the area under application does not lie within or adjacent to any of these area; therefore the proposed clearing is unlikely to impact on the environmental values of nearby areas managed for conservation and is not likely to be at variance to this Principle.

Methodology GIS Databases:
 - CALM Managed Lands and Waters - CALM 1/07/05

(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 soils of the area under application are described as hard and sandy, neutral and also acidic, yellow and yellow mottled soils with smaller areas of red earths (Northcote et al., 1960-68).

The groundwater salinity is 500 to 1000 mg/L and the hydrogeology consists of rocks of low permeability with local aquifers in fractured and weathered rocks.

Given the scale (2.5 hectares and 22 native trees) and percentage of surrounding remnant vegetation (75% in 10 kilometre radius), the proposed clearing is unlikely to cause deterioration in the quality of surface or underground water and therefore is not likely to be at variance to this Principle.

Methodology GIS Databases:
 - Hydrographic Catchments, Catchments - DoW;
 - Topographic Contours, Statewide - DOLA 12/9/02;
 - Groundwater Salinity, Statewide - DoW;
 - Hydrogeology, Statewide - DoW

(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 proposed clearing of 2.5 hectares and 22 native trees is unlikely to cause or exacerbate the incidence or intensity of flooding and is therefore not likely to be at variance to this clearing principle.

Methodology GIS Databases:
 - Topographic Contours, Statewide - DOLA 12/9/02

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

Comments
 The proponent wishes to clear within the adjacent road reserve in order to erect a fence. The Shire of Manjimup (2008) has authorised the proponent to clear within this area, on the proviso that certain terms and conditions are followed.

The area under application falls within Zone D of the Warren River Water Reserve, managed under the Country Areas Water Supply Act 1947; licences to clear will normally be granted in this zone where 10% of the native vegetation on a location or holding remains uncleared (WRC, 1996). Approximately 30% of native vegetation will remain on Lot 9185.

No public submissions have been received for this proposal.

Methodology WRC (1996);
 GIS Database:
 - CAWSA Part IIA Clearing Control Catchments - DoW

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Fence Line Maintenance	Mechanical Removal	2.5 22	The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing

is not or is not likely to be at variance to all ten clearing Principles.

Fence Line Mechanical
Maintenance Removal

5. References

- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- 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, E.M. and Havel, J.J. (1998). Vegetation mapping in the South West of Western Australia. Department of Conservation and Land Management, Perth.
- 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.
- Sac Bio Datasets (22/8/07). Department of Environment and Conservation, Sac Bio Datasets, Kensington, 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.
- Shire of Manjimup (2008). TRIM Ref: DOC45247.
- Water and Rivers Commission (WRC) (1996). Policy and Guidelines: Granting of Licences to Clear Indigenous Vegetation in Catchments Subject to Clearing Control Legislation, Regional Services.

6. 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)

