



1. Application details

1.1. Permit application details

Permit application No.: 2645/1
 Permit type: Area Permit

1.2. Proponent details

Proponent's name: MR Maurice James Humphrey

1.3. Property details

Property: LOT 4302 ON PLAN 229252 (CROWEA 6258)
 Local Government Area: Shire Of Manjimup
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
49.41		Mechanical Removal	Timber Harvesting

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: 3 - Medium forest; jarrah-marri; 1144 - Tall forest; karri & marri (<i>Corymbia calophylla</i>) (Shepherd et al. 2006).	The proposal is to clear 49.4 ha for silvicultural thinnings.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Description and condition of the vegetation under application was determined from DEC (2008) and Bunnings Treefarms (1997).
Mattiske Vegetation Complex: 143 - Tall open forest of <i>Corymbia calophylla</i> - <i>Eucalyptus marginata</i> subsp. <i>marginata</i> on uplands in perhumid and humid zones; 156 - Tall open forest of <i>Eucalyptus diversicolor</i> - <i>Corymbia calophylla</i> on slopes and low woodland of <i>Agonis juniperina</i> - <i>Callistachys lanceolata</i> on lower slopes in hyperhumid and perhumid zones; 166 - Tall open forest of <i>Corymbia calophylla</i> - <i>Eucalyptus diversicolor</i> on upper slopes with <i>Allocasuarina decussata</i> - <i>Banksia grandis</i> on upper slopes in hyperhumid and perhumid zones; 179 - Tall open forest of <i>Eucalyptus diversicolor</i> with mixtures of <i>Corymbia calophylla</i> on valley slopes and low forest of <i>Agonis juniperina</i> - <i>Banksia seminuda</i> - <i>Callistachys lanceolata</i> on valley floors in the perhumid zone (Mattiske Consulting, 1994).	The area under application supports predominantly regrowth stands of Karri (<i>Eucalyptus diversicolor</i>), Marri (<i>Corymbia calophylla</i>) and Jarrah (<i>Eucalyptus marginata</i>) (DEC 2008) which were thinned ~40-50 years ago and time since last burn ranges from 4 to 10 years (Bunnings Treefarms, 1997). In addition to the dominant production timber species (Karri, Jarrah and Marri) the area also supports Blackbutt (<i>Eucalyptus patens</i>) and understorey species including <i>Banksia grandis</i> , <i>Macrozamia reidleyi</i> , <i>Hovea elliptica</i> , <i>Acacia urophylla</i> , <i>Persoonia longifolia</i> , <i>Podocarpus drouynianus</i> , <i>Anarthria proliferata</i> , <i>Agonis linearifolia</i> , <i>Dasyopogon bromeliifolius</i> , <i>Agonis parviceps</i> and <i>Patersonia</i> sp. (Bunnings Treefarms, 1997; DEC 2008). The area under application is infected by <i>Phytophthora</i> sp. along its boundaries and supports minimum weed invasion along its boundaries (Bunnings Treefarms, 1997).		

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 proposal is to clear 49.41 hectares of native vegetation for the purpose of silviculture. The vegetation under application is in very good (Keighery, 1994) condition. The local area is well vegetated with approximately 90% native vegetation remaining within a 10km radius.

The area under application supports tall closed forest dominated by Karri, Marri and Jarrah. The area was thinned approximately 40-50 years ago and time since last burn ranges from 4 to 10 years (Bunnings Treefarms 1997). *Phytophthora* sp. is known to occur along the boundaries of Lot 4302 (Bunnings Treefarms 1997) and the extent of *Phytophthora* spread within the vegetation has not been mapped for several years (DEC 2008).

Given the history of disturbance associated with silviculture within the area under application, and the occurrence of *Phytophthora* within the vegetation under application, the site is not considered to support

exceptionally high diversity in relation to nearby native vegetation. Dieback conditions will be placed on the permit to prevent the spread of Phytophthora to uncontaminated areas.

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

Methodology References:
Bunnings Treefarms (1997)
DEC (2008)
Keighery (1994)

GIS Databases:
- CALM Managed Lands and Waters - CALM 01/06/05
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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 local area is approximately 90% vegetated, with 85% occurring within DEC managed lands.

Additionally, the presence of disease and the history of disturbance to this area, the vegetation under application is not likely to be significant habitat for fauna indigenous to Western Australia in a local context.

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

Methodology GIS Databases:
- SAC Biodatasets - accessed 24 Sept 08
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06
- Topographic contours statewide - DOLA and ARMY 12/09/02

(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**
Two species of rare flora, Caladenia christineae and Kennedia glabrata, and 4 priority flora species are known to occur within a 10 km radius of the area under application.

Given that the area under application lacks the required habitat for these species (winter wet flats and rocky outcroppings) it is not considered likely that these species occur within the area under application (Brown et.al. 1998). Therefore, clearing is not likely to be at variance to this principle.

Methodology References:
- Brown et al (1998)
GIS Databases:
- SAC Biodatasets - accessed 24 Sept 08
- Mattiske Vegetation - CALM 1/03/1998
- Pre European Vegetation - DA 01/01
- Soils, Statewide DA 11/99

(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**
No known Threatened Ecological Communities (TECs) are located within a 10 km radius of the area under application. Therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Databases:
- SAC Biodatasets - accessed 24 Sept 08

(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**

	Pre-European area (ha)	Current extent (ha)	Remaining %	% in reserves/DEC-managed land
Bioregion:				
Warren *	833,981	663,141	79.5	67.9
Shire of Manjimup *	696,702	589,728	84.6	52.2

Local Area (10 km radius)	37,867.77	31,145.97	82.3	-
Beard vegetation associations **				
3	2,661,405	1,863,719	70.0	18
1144	160,314	131,412	81.97	34.32
Mattiske vegetation complex ***				
143 (Bevan 1)	767,844	657,120	85.6	-
156 (Lefroy)	201,286	164,947	81.9	-
166 (Crowea)	527,433	428,454	81.2	-
179 (Pemberton)	258,061	169,317	65.6	-

* (Shepherd 2007)

** (Shepherd et al., 2001; Hopkins et al., 2001)

*** (Mattiske Consulting, 1998)

The local area (10km radius) retains approximately 90% native vegetation, with approximately 85% of which, within DEC managed lands.

Therefore, the area is not considered to be extensively cleared and, given the history of disturbance and the presence of disease (Phytophthora) within the area, the vegetation under application is also not considered to be significant as a remnant in the local area.

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

Methodology

References:

Hopkins et al. (2001)

Shepherd et al. (2001)

Shepherd (2007)

Mattiske Consulting (1998)

GIS Databases:

- Interim Biogeographic Regionalisation of Australia - EA 18/10/00

- Local Government Authorities - DLI 8/07/04

- Mattiske Vegetation (01/03/1998)

- Pre European Vegetation - DA 01/01

- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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 may be at variance to this Principle**

The western side of the area under application supports a minor perennial watercourse which is a tributary of the Warren River (located ~1.3 km to the west). Therefore, the clearing as proposed may be at variance to this principle.

The Private Forest Management Plan for Lot 4302 addresses the retention of a buffer to the watercourse within the applied area (Bunnings Treefarms 1997). In order to ensure that an adequate buffer to the watercourse is retained, a condition has been placed on this permit stipulating no clearing is to occur within 30 m of any watercourse.

Methodology

References:

- Bunnings Treefarms (1997)

GIS Databases:

- Hydrography linear - DOW 13/7/06

- Hydrography linear (hierarchy) - DoW 13/7/06

(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**

Given the nature of the clearing, thinning (not clear felling), the proposal is not likely to result in appreciable land degradation as vegetation cover will persist throughout the property.

DAFWA (2008) advice stated that the proposed thinning is not likely to cause land degradation. DOW (2008) are not apposed the proposal provided a minimum basal area of 10m² is exceeded, which the Forest Management Plan indicates will be the case. Therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology

References:

DAFWA (2008)
DOW (2008)
Forest Management Plan (2008)

GIS Databases:

- Average Annual Rainfall Isohyets - WRC 29/09/98
- Annual Evaporation Contours (Isopleths) - WRC 29/09/98
- Soils, Statewide DA 11/99
- Topographic contours statewide - DOLA and ARMY 12/09/02

(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

The southern boundary of the area under application borders the Warren State Forest and the western boundary of the area under application borders timber production forests managed by Department of Environment and Conservation.

Given the history of disturbance associated within the area under application and the occurrence of Phytophthora within the vegetation, clearing within the applied area may result in spread of weeds and / or disease into the conservation areas.

Therefore the clearing as proposed may be at variance to this principle. Dieback and Weed Management conditions will be placed on this permit to reduce the potential for spread of weeds and disease.

Methodology GIS Databases:
- CALM Managed Lands and Waters - CALM 01/06/05

(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 may be at variance to this Principle

The western side of the area under application supports a minor perennial watercourse which is a tributary of the Warren River which is located ~1.3 km to the west. Clearing within the mapped watercourse may cause sedimentation of the waterway and therefore decrease the quality of water flowing into the Warren River. Therefore the clearing as proposed may be at variance to this principle.

The Private Forest Management Plan for Lot 4302 addresses the retention of a buffer to the watercourse within the applied area (Bunnings Treefarms 1997). In order to ensure that an adequate buffer to the watercourse is retained, to mitigate potential impacts on water quality, a condition will be placed on the permit stipulating no clearing is to occur within 30 m of this watercourse.

DOW (2008) are not against the proposal provided a minimum basal area of 10m² is exceeded, which the Forest Management Plan indicates will be the case. A condition will be placed on the permit requiring a minimum basal area of 18m².

Methodology References:
- Bunnings Treefarms (1997)
- DOW (2008)

GIS Databases:
- Evapotranspiration Isopleths - WRC 29/09/98
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Topographic Contours, Statewide - DOLA 12/09/02
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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 application is for thinning, the proposal is not likely to cause or exacerbate the incidence or intensity of flooding as a high proportion of vegetation cover will persist within the property. Therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Databases:
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

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

Comments

An Agreement to Reserve under the Soil and Land Conservation Act has been placed on the entire area under application. The site is zoned as 'area to be retained and protected as native vegetation' (Department of Agriculture and Foods 2004). The Department of Agriculture and Foods have stated the ATR covenant has been altered to allow for the proposed thinning (TRIM ref DOC72208).

Methodology

References:

- Department of Agriculture and Foods (2004)

4. Assessor's comments

Comment

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 may be at variance to principles (f), (h) and (i).

5. References

- Brown A., Thomson-Dans C. and Marchant N. (1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Bunnings Treefarms. (1997). Humphrey Private Forest Management Plan - Nelson Locations 4302, 8111, 8069 and 8066. Perth, Bunnings Treefarms. TRIM Ref. DOC58516.
- DEC (2008) Site Inspection Report for Clearing Permit Application CPS 2645/1, Lot 4302 Horne Road, Manjimup. Site inspection undertaken 15/09/2008. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC63479).
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALM Science 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 Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- Shepherd, D.P. (2007). 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.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

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)

