



Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 5449/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Alida Parke

1.3. Property details

Property: LOT 7100 ON PLAN 225837 (LAKE MUIR 6258)
Local Government Area: Shire of Manjimup
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.06		Mechanical Removal	Hazard reduction or fire control

1.5. Decision on application

Decision on Permit Application: Refuse
Decision Date: 5 September 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
Mapped Beard vegetation association 126: Bare areas; freshwater lakes (Shepherd et al, 2001).	The application is to clear 1.06 hectares of native vegetation within Lot 7100 for the purpose of a fire break and fenceline maintenance.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The vegetation within the area comprises of closed tall scrubs with the dominant species being Melaleuca (DEC, 2013). The application is a swamp, wetland area with the vegetation under application is an excellent (Keighery, 1994) condition (DEC, 2013).
Mapped Beard vegetation association 1134: Medium woodland; jarrah (south coast) (Shepherd et al, 2001).			
Mattiske vegetation complex Frankland Hills (FH5): Mosaic of low open woodland of Melaleuca cuticularis, tall shrubland of Melaleuca densa with occasional Eucalyptus rudis on valley floors in humid to semiarid zones (Mattiske and Havel, 1998).			The condition of the vegetation under application was obtained from a site inspection undertaken by the Department of Environment and Conservation (DEC) on the 8 March 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 at variance to this Principle

The application is to clear 1.06 hectares of native vegetation for the purpose of a fire break and fenceline maintenance. The applicant has requested the width of clearing to be 21 metres.

The area under application is a swamp, wetland area with the dominant species being Melaleuca (DEC, 2013). The vegetation under application is in an Excellent (Keighery, 1994) condition (DEC, 2013).

Several priority flora species have been recorded within 10 Kilometres of the application area. Most notably are Kunzea, Schoenus and Montia species. Two rare flora species have also been recorded within close proximity

to the application area. The three priority flora species and the two rare flora species occur in the same vegetation and soil complexes as the application area.

A recent site inspection undertaken by DEC (2013) of the application area considers that the vegetation under application comprises suitable habitat for two species of rare flora recorded in the local area.

Considering that the vegetation under application is in an excellent (Keighery, 1994) condition (DEC, 2013) and comprises suitable habitat for rare and priority flora, the application area is of high biodiversity values. The application is at variance to this principle.

An appropriately timed flora survey, in accordance with EPA Guidance Statement No.51, would determine the presence of rare and priority flora and likely impacts to their conservation status.

- Methodology** **References**
- DEC (2013)
 - Keighery (1994)GIS Database
 - Pre-European vegetation
 - Soils, Statewide
 - SAC Bio datasets (Accessed March, 2013)

(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**

Six fauna species rare or likely to become extinct have been recorded within 10 kilometres of the application area. Additionally, ten bird species protected under international agreement also occur within 10 kilometres of the application area (DEC, 2007-).

Approximately 70 percent of vegetation within a 10 kilometre radius of the application area remains. Considering this, the linear nature of the proposed clearing and the total required clearing of 1.06 hectares, the application is not likely to impact on significant fauna habitat in the local area.

The application is not likely to be at variance to this principle.

- Methodology** **References**
- DEC (2007-)
 - GIS Database
 - Pre-European vegetation

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

Comments **Proposal may be at variance to this Principle**

Rare flora species *Diuris* and *Caladenia* have been recorded within 10 kilometres of the application. Species *Diuris* is found in low-lying depressions in peaty and sandy clay swamps that contain water into summer (Brown et al, 1998). Species *Caladenia* inhabits *Melaleuca* and *Eucalyptus rudis* swamps and flats which are inundated for several months of the year with the soil being a shallow loamy clay over a granite outcrop (Brown et al, 1998).

The area under application is a swamp, wetland area with the dominant species being *Melaleuca* (DEC, 2013) and the vegetation under application is in an excellent (Keighery, 1994) condition (DEC, 2013). The soils within the applied area comprise of plains--swampy flats with shallow swamps and lakes, some lunettes: chief soils are various leached sands, which may have thin peaty surface horizons. (Northcote et al 1960 - 1968).

The area under application comprises suitable habitat for rare flora species *Diuris* and *Caladenia*. A recent site inspection undertaken by DEC (2013) of the application area also noted that the vegetation under application is suitable habitat for both rare flora species.

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

An appropriately timed flora survey, in accordance with EPA Guidance Statement No.51, would determine the presence of rare flora and likely impacts to their conservation status.

- Methodology** **Reference**
- Brown et al (1998)
 - DEC (2013)
 - Keighery (1994)
 - Northcote et al (1960-68)
 - GIS Database

- SAC Bio datasets (Accessed March, 2013)

(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 threatened ecological communities within 10 kilometres of the application area, thus the application is not likely to be at variance to this principle.

Methodology GIS Database:
- SAC Bio datasets (Accessed March, 2013)

(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 vegetation under application is represented by Beard vegetation association 126 and 1134 where there is 42 and 83 percent of their pre-European vegetation remaining within the Jarrah Forest IBRA Bioregion (Government of Western Australia, 2011). The vegetation under application is also represented by Matiske vegetation complex Frankland Hills of which there is 58 percent of its pre-European extent remaining (Matiske and Havel, 1998).

The two mapped Beard Vegetation associations and Matiske vegetation complexes are above the threshold level (30 percent) recommended in the National Objectives Targets for Biodiversity Conservation, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

The application falls within the Shire of Manjimup which has 84 percent of its pre-European vegetation remaining. Approximately 70 percent of vegetation within a 10 kilometre radius of the application area remains.

Given that the mapped vegetation associations/complexes are above the recommended 30 percent threshold and that the application does not occur within an extensively cleared landscape, the vegetation under application is not likely to be significant as a remnant in an extensively cleared landscape.

The application is not likely to be at variance to this principle.

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion				
Jarrah Forest	4,506,657	2,473,560	55	68
Shire				
Shire of Manjimup	697,370	589,098	84	92
Beard Vegetation Association in Bioregion				
126	23,503	9,957	42	38
1134	37,489	31,142	83	87
Matiske Vegetation Complex				
FH5 (Frankland Hills)	21,444.66	12,611.79	58.8	16.8

Methodology References
- Commonwealth of Australia (2001)
- Government of Western Australia (2011)
- Matiske and Havel (1998)
GIS databases:
- IBRA Australia
- 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 at variance to this Principle

The area under application is a swamp, wetland area with the dominant species being Melaleuca (DEC, 2013).

A Ramsar Wetland, namely the Muir-Byenup System, borders the southern and eastern boundary of the application area. The closest point of the proposed clearing is approximately 30 metres from the mapped wetland.

The Muir-Byenup System Ramsar Wetland comprises a suite of partly inter-connected lakes and swamps of

varied size (up to 10 631 hectares), salinity (saline to fresh), permanence (permanent to seasonal) and substrate (peat and inorganic), in an internally-draining catchment. Vegetation communities of the sites wet flats are among the few remaining in non-coastal parts of South-Western Australia and the site has some of the largest natural sedgeland in Western Australia.

The vegetation under application is considered wetland vegetation, therefore the application is at variance to this principle.

Methodology GIS Database
- Hydrography, linear
- Wetlands, Ramsar

(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 within the applied area are described as plains--swampy flats with shallow swamps and lakes, some lunettes: chief soils are various leached sands, which may have thin peaty surface horizons. (Northcote et al 1960 - 1968).

The Muir-Byenup System Ramsar Wetland borders the southern and eastern boundary of the application area. The closest point of the proposed clearing is approximately 30 metres from the mapped wetland.

The groundwater salinity within the area under application has been recorded between 3000-7000 Mg/L which is considered to be brackish to saline. It is unlikely the removal of 1.06 hectares of native vegetation will result in a rise in groundwater levels, therefore land degradation in the form of salinity is not likely to be significant.

Given the soils and size of the proposed clearing, the proposed clearing is not likely to cause land degradation in the form of increased groundwater salinity, wind or water erosion.

The application is not likely to be at variance to this principle.

Methodology References
- Northcote et al (1960-68)
GIS Database
- Groundwater Salinity, Statewide
- Hydrography, linear
- Soils, Statewide
- Wetlands, Ramsar

(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 at variance to this Principle

The southern and eastern boundary of the application area borders Lake Muir Nature Reserve. The vegetation under application is in an excellent (Keighery, 1994) condition (DEC, 2013) and is contiguous with the vegetation within the reserve.

The clearing, as proposed will impact on the adjacent Lake Muir Nature Reserve as the reserve is likely to become susceptible to invasive weed species, thus reduce the value of the vegetation. The application is at variance to this principle

Weed management practices could assist in mitigating the risk of weeds spreading to other vegetation areas.

Methodology References
- DEC (2013)
- Keighery (1994)
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 Muir-Byenup System Ramsar Wetland borders the southern and eastern boundary of the application area. The closest point of the proposed clearing is approximately 30 metres from the mapped wetland.

The proposed clearing may cause some short term localised surface water sedimentation that may impact upon the nearby Muir-Byenup System Ramsar Wetland, however these effects are likely to be negligible.

The application is not likely to be at variance to this principle

Methodology GIS Database
- Hydrography, linear
- Wetlands, Ramsar

(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 Muir-Byenup System Ramsar Wetland borders the southern and eastern boundary of the application area. The wetland comprises a suite of partly inter-connected lakes and swamps of varied size covering an area of approximately 10 631 hectares.

The proposed clearing of 1.06 hectares is not likely to increase the intensity of frequency or flooding to the local area.

The application is not likely to be at variance to this principle.

Methodology GIS Database
- Hydrography, linear
- Wetlands, Ramsar

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

Comments

The application area is within an Environmental Sensitive Area (ESA). ESA's are areas recognised as having high conservation values, such areas include Threatened Ecological Communities, Bushforever Sites and important Wetlands. They are gazetted under the Environmental Protection (Environmentally Sensitive Areas) Notice 2005.

The Shire of Manjimup (2013) has no objections to the application and there are no planning or other matters which would affect the proposal. The Shire of Manjimup's current fire management plan requires fire breaks to be at a minimum width of three metres.

The application falls within a priority not assigned Public Drinking Water Source Area. The Department of Water (DoW, 2013) advises the application is located within the Deep River Water Reserve, however the water resource is not currently being used as a public water supply.

On 4 April, 2013, DEC wrote to the applicant requesting a flora survey and an explanation on the necessity to construct a 21 metre wide firebreak which is not in accordance with the Shire of Manjimup's bushfire notice. A response was received from the applicant on 25 April, 2013. The applicant advised that they would not be undertaking a flora survey. Additionally, they advised the requirement for a 21 metre wide firebreak is to allow emergency vehicles to turn around in the event of a fire and it would also allow for constructing a fence that would prevent vermin entering the property.

A further letter was sent to the applicant dated 16 July, 2013, informing the applicant should they wish to continue with the application a flora survey will be required. The letter also notified the applicant that DER is of the opinion the Shire of Manjimup's Firebreak and Fuel Hazard Reduction Notice order are appropriate in this instance. The applicant was given 30 days to respond to DER's letter before a final decision was made. This time has passed and no additional information was received from the applicant.

Methodology References
- Department of Water (2013)
- Shire of Manjimup (2013)
GIS Database
- Environmental Sensitive Area

4. References

- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- 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 March 2013
- DEC (2013) Site Inspection Report for Clearing Permit Application CPS 5449/1, Lot 7100, Lake Muir. Site inspection undertaken 08/03/2013. Department of Environment and Conservation, Western Australia (DEC Ref.:A611741).
- Department of Water (2013) Advice received for Clearing Permit Application CPS 5449/1, Lot 7100, Lake Muir (DEC

Ref:A595868).

- 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.
- 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.
- 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 Manjimup (2013) Advice received for Clearing Permit Application CPS 5449/1, Lot 7100, Lake Muir (DEC Ref:A595868).

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)