



1. Application details

1.1. Permit application details

Permit application No.: 2099/1
 Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Manjimup

1.3. Property details

Property: LOT 783 ON PLAN 92096 (Lot No. 783 COLLIER MANJIMUP 6258)
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Local Government Area: Shire Of Manjimup
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.15		Mechanical Removal	Dam construction or 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 3: Medium forest; jarrah-marri	Vegetation within the area proposed to be cleared consists of Jarrah and Marri regrowth. There are some flora species associated with watercourses as well some introduced weeds and other grasses. The area has no overstorey species and little groundcover.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Condition of vegetation was classified by site photo's provided by the proponent.
CL1: Mosaic of open forest of Eucalyptus marginata subsp. marginata-Banksia spp. on well drained sites, with some Eucalyptus decipiens on lower slopes in southern areas, woodland of Eucalyptus rudis-Melaleuca preissiana-Banksia littoralis on depressions in perhumid and humid zones.			
YR: Mosaic of open woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla, open woodland of Melaleuca cuticularis, open woodland of Melaleuca preissiana-Banksia littoralis-Banksia seminuda, tall shrubland of Myrtaceae spp. and sedgelands on broad depressions in humid and subhumid zones.			

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 area proposed to be cleared is in degraded condition (Keighery, 1994). Site photo's show that vegetation consists of Jarrah regrowth with some wetland related species and other introduced flora.

The notified area is along a roadside at the edge of a larger intact reserve. Within the local area there are numerous State Forests, one nature reserve and other large holdings of vegetation. It is unlikely given the remaining vegetation of the proposed clearing area and the local surroundings that the notified area is likely to contain a high level of biological diversity.

Methodology SAC bio datasets, accessed 10 Jan 08
Site photo's, 2007
Keighery, 1994
GIS Databases:
- CALM Managed Lands and Waters
- 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 likely to be at variance to this Principle**

Within the local area there is a species rich record of native fauna including:

- Western Ringtail Possum (*Pseudocheirus occidentalis*)
- Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*)
- Baudins black Cockatoo (*Calyptorhynchus baudinii*)
- Chuditch (*Dasyurus geoffroii*)
- Peregrine Falcon (*Falco peregrinus macropus*)
- Scorpion fly (*Austromerope poultoni*)
- Brush-tailed phascogale (*Phascogale tapoatafa ssp.*)
- Quenda (*Isodon obesulus fusciventer*)

Given that the proposed clearing area is small (0.15ha), disturbed and consisting predominantly of jarrah regrowth it is unlikely to provide significant habitat for any of the above species. The proposed clearing is also unlikely to alter any ecological linkages within the local area due to its location at the edge of the reserve. The clearing as proposed is not likely to be at variance to this principle.

Methodology SAC Bio datasets, accessed 10 Jan 2008
Site photo's, 2007
GIS Databases:
- 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**

Within the local area (10km radius) there are three recorded species of Declared Rare Flora:

- *Caladenia harringtoniae*
- *Caladenia christineae*
- *Andersonia annelsii*

Two of these species, *C.harringtoniae* and *C.christineae* have habitat requirements similar to the characteristics found within the proposed clearing area. These species are often only in flower after a fire event, and are therefore difficult to survey. Advice from the Species and Communities Branch, DEC, stated that there are no known populations within the notified area and due to the size of the proposed clearing (0.15 ha) there is unlikely to be any significant impact on any local populations.

Methodology SAC Bio datasets, accessed 10 Jan 08
Site Photo's, 2007
GIS Databases:
- Manjimup 50cm Orthomosaic - DLI04

(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**

Within the local area (10km radius) there are no known Threatened Ecological Communities (TEC). Given the

large amount of surrounding secure vegetation across numerous vegetation complexes, it is unlikely that the proposed clearing would be at variance to this principle.

A priority ecological community (PEC) has been recorded 9km SE of the proposed clearing. This PEC is known as an epiphytic cryptogam which comprises liverworts, mosses and lichens found on the bark of mature (15 years or greater) trees in Karri forests. As the area proposed to be cleared consists of young Jarrah regrowth it is unlikely that this PEC would occur here.

Methodology SAC bio datasets, accessed 10 Jan 08
GIS Databases:
- Pre-European Vegetation
- Mattiske Vegetation

(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	Current extent (ha)	Remaining (ha)	Conservation** (%)	% In reserves status	DEC Managed Land
Mattiske Vegetation Complex					
CL1	15,189	11,267	74.2	Least concern	
YR	19,272	12,674	65.8	Least concern	
Beard Vegetation Complex					
3	2,661,403	1,846,588	69.4	Least Concern	26.4

As the area proposed to be cleared is small (0.15ha) and local and regional vegetation figures are of 'least concern' it is unlikely that the proposed clearing represents a significant remnant of native vegetation.

Methodology Shepherd et al, 2001
GIS Databases:
- Pre-European Vegetation
- Mattiske 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 proposed to be cleared is associated with a small stream which appears to be an extension to the mapped Balbarup Brook.

The clearing is proposed to remove sedges and other watercourse related species found along the creek. Given the proposed clearing lies within a watercourse the clearing is at variance to this principle.

Methodology Site photo's, 2007
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**
The area proposed to be cleared is mapped as having marine limestone and sandstone geology with a lithology of surficial sediment. Soils are mottled or a brown earth containing ironstone gravels. Given the geology and nature of soil it is unlikely to be prone to wind erosion. Site photo's show areas of water accumulation do not result in water erosion.

Given the dense nature of the soil waterlogging may be an issue however as the proposed clearing is along a roadside there is an infrastructure of drains and culverts to assist with the dispersal of water.

As the proposed area to be cleared is small (0.15 ha), and the local area is well vegetated salinity is not likely to be affected.

Given the above factors the clearing as proposed is unlikely to be at variance to this principle.

Methodology Site photo's, 2007

- GIS Databases:
- Soils, Statewide
 - Hydrogeology, Statewide
 - Geology, Statewide
 - Manjimup 50cm Orthomosaic - DLI04
 - Groundwater Salinity, 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

Within the local area (10km radius) the following conservation areas have been recorded:

- Tone State Forest
- Palgarup State Forest
- North Donnelly State Forest
- Donnelly State Forest
- Faunadale Nature Reserve

As the proposed clearing area is small (0.15ha) and unconnected with any of the conservation areas it is unlikely, in this well-vegetated region, to be providing additional habitat, significant ecological linkages or buffering functions to these conservation areas.

- Methodology** SAC Bio datasets, accessed 10 Jan 08
 Site photo's, 2007
 GIS Databases:
 - CALM Managed Lands and Water
 - Manjimup 50cm Orthomosaic - DLI04

(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 area proposed to be cleared lies within Zone B of the CAWSA boundaries and a non-assessed Public Drinking Water Source Area. Due to the small size (0.15 ha) of the clearing no licence is required.

Groundwater Salinity within this region is mapped as being 500-1000 Total dissolved salts per mg/L. Clearing of the amount proposed is unlikely to alter salinity levels.

As clearing is partly within a minor watercourse there may be a small on flow of sedimentation related to the clearing, however this is expected to be short term and minimal due to the amount of vegetation being cleared.

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

- Methodology** Site photo's, 2007
 GIS Databases:
 - Groundwater Salinity, Statewide
 - Hydrography, linear
 - CAWSA Part IIA Clearing Control Catchments
 - Public Drinking Water Source Areas (PDWSAs)
 - RIWI Act, Groundwater Areas

(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 small scale of clearing (0.15ha) it is unlikely that clearing of native vegetation will lead to an increased incidence or severity of flooding.

- Methodology** Site photo's, 2007

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

Comments

The area proposed to be cleared lies within Zone B of the CAWSA boundaries. Under the licencing requirements for these areas a licence is not required when the total clearing area is less than 0.2 ha. As this proposal is for 0.15 the Shire is exempt from this licensing requirement. The area also within a non-assessed Public Drinking Water Source Area.

The clearing as proposed is not likely to increase the incidence of flooding however as the land use after

clearing is for Dam construction this may have a greater possibility in relation to flooding incidents. However, given the small size of the dam and the conditions within the Permit to obstruct or interfere it is unlikely that flooding will be an issue in relation to this application.

Methodology

4. Assessor's comments

Purpose	Method Applied	area (ha)/ trees	Comment
Dam construction or maintenance	Mechanical Removal	0.15	Construct dam (sump)

5. References

- DEC, 2008, SAC bio datasets, accessed on 10th January 2008
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- 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 Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.
- 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, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Shire of Manjimup, 2007, Site photo's, TRIM ref DOC 33356

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)