



1. Application details

1.1. Permit application details

Permit application No.: 2255/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Nathaniel James Muir

1.3. Property details

Property: LOT 2 ON DIAGRAM 15636 (MIDDLESEX 6258)

LOT 2 ON DIAGRAM 15636 (MIDDLESEX 6258)

Local Government Area: Shire Of Manjimup

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.285		Mechanical Removal	Dam construction or maintenance
0.4		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 Vegetation Association 1144 (Nornalup): Tall forest; karri & marri (Corymbus calophylla) (Hopkins et al. 2001; Shepherd et al. 2001).	The proposal involves clearing approximately 0.4 hectares for the purpose of dam construction.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The description of the clearing application area is based on a site inspection undertaken by DEC officers on 10 January 2008.

Mattiske Vegetation Complex:
 - Pemberton (PM1): Tall open forest of Eucalyptus diversicolor with mixtures of Corymbia calophylla on valley slopes and low forest of Agonis juniperina-Banksia seminuda-Callistachys lanceolata on valley floors in the perhumid zone (Mattiske Consulting, 1998).

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 0.4 hectares for the purpose of dam construction. The vegetation under application is considered to be in good condition (Keighery, 1994; DEC Site Visit, 2008).

The applied area is located within a predominantly cleared area on the outskirts of the Manjimup townsite. The local area is approximately 50% vegetated, with the majority of that vegetation managed by DEC as State Forest and National Park.

Given the scale (0.4 ha) and the surrounding local vegetation the proposed clearing does not hold a high level of biodiversity and is therefore not at variance to this Principle.

Methodology Keighery (1994);
DEC Site Visit (2008);

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**
The proposal is for the clearing of approximately 0.4 hectares for the purpose of dam construction. The vegetation under application is considered to be in good condition (Keighery, 1994; DEC Site Visit, 2008).

There are several records of threatened and priority fauna within close proximity to the applied area (10 km radius). The local area is approximately 50% vegetated, with the majority of that vegetation managed by DEC as State Forest and National Park; therefore given the scale (0.4 ha) and the surrounding local vegetation the area under application is not considered significant habitat for fauna indigenous to Western Australia and is therefore not at variance to this Principle.

Methodology Keighery (1994);
DEC Site Visit (2008);

GIS Databases:
- Threatened Fauna, SAC Bio Dataset - 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**
There are currently no known records of declared rare or priority flora within a 10 km radius of the proposed clearing; therefore it is considered unlikely the applied area will be necessary for the continued existence of rare flora when considering the scale (0.4 ha), grazing history and the percentage of surrounding local vegetation (50% in 10 km radius).

Methodology GIS Databases:
- DEFL, SAC Bio Dataset - 22/8/07;
- 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**
There are no known records of Threatened Ecological Communities (TECs) within 10 km radius of the proposed clearing; therefore the applied area is unlikely 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-managed land	area (ha)
Warren	833,981	663,141	79.5*	82.4
Shire of Manjimup	696,702	589,728	84.6*	59.4
Vegetation type:				
Beard: Unit 1144 (Normalup)	160,315	127,463	79.5*	42.6

Mattiske: Pemberton (PM1) 258,061 169,317 65.6** N/A

* (Shepherd, 2006)

** (Mattiske Consulting, 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 scale (0.4 ha) and percentage of vegetation remaining in the local area (50% in 10 km 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 Consulting (1998);

GIS databases:

- Interim Biogeographic Regionalisation of Australia - EM 18/10/00;
- Mattiske Vegetation - CALM 24/3/98;
- Pre-European Vegetation - DA 01/01;
- 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**

The applied area is a catchment dam, i.e. not associated with a watercourse, and is not considered a watercourse for the purposes of the RIWI Act (DoW, 2008); therefore the proposal is not associated with a watercourse or wetland and is not at variance to this Principle.

Methodology DoW (2008);

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 dissected hilly areas with hard acidic yellow mottled soils, containing ironstone gravels (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 application is for 0.4 ha in a grazed area and the surrounding vegetation in the local area (50% in 10 km radius), the proposed clearing is not likely to cause appreciable land degradation and is therefore not likely to be at variance to this Principle.

Methodology Northcote et al. (1960-68);

GIS Databases:

- Hydrogeology, Statewide - DoW;
- Groundwater Salinity, Statewide - DoW;
- CALM Managed Lands and Waters - CALM 1/07/05;

(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 area under application does not lie within or adjacent to areas set aside for conservation. Given the application is for 0.4 ha in a grazed area and the surrounding vegetation in the local area (50% in 10 km radius), the proposed clearing is not likely to impact on the environmental values of any nearby conservation areas.

Methodology GIS Databases:
- Register of National Estate - EA 28/01/03;
- 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 area under application falls within the Donnelly River water catchment area. This area is not managed as a Public Drinking Water Source Area (PDWSA).
The soils of the area under application are described as dissected hilly areas with hard acidic yellow mottled soils, containing ironstone gravels (Northcote et al. 1960-68).

The local area has an average annual rainfall between 1100 - 1000mm with regional groundwater salinity ranging between 500 to 1000 mg/L.

The slope of the area under application is 230 to 245 metres AHD (Australian Height Datum) over 100 metres.

Given the scale (0.4 ha) and the remaining surrounding vegetation in the local area (50% in 10 km radius), the proposed clearing is not likely to cause deterioration in the quality of surface or underground water and is therefore not likely to be at variance to this Principle.

Methodology GIS Databases:
- Hydrographic Catchments, Catchments - DoW;
- Rainfall, Mean Annual - DoW;
- Groundwater Salinity, Statewide - DoW;
- Geomorphic Wetlands, Augusta to Walpole - DoE 18/6/03;
- CALM Managed Lands and Waters - CALM 1/07/05;

(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 scale (0.4 ha) and the remaining surrounding vegetation in the local area (50% in 10 km radius), the proposed clearing 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:
- CALM Managed Lands and Waters - CALM 1/07/05;
- Topographic Contours, Statewide - DOLA 12/9/02

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

Comments
DoW (2008) advises the proposal is a catchment dam that will fill from overland flow, i.e. does not involve a watercourse, and thus does not require a) a surface water licence; or b) a permit to construct a new dam.

The property is zoned Rural under the Shire of Manjimup TPS.

Methodology No public submissions have been received for the proposal.
DoW (2008);

GIS Database:
- Town Planning Scheme Zones - MFP 08/98

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Dam construction or maintenance	Mechanical Removal	0.285	
Dam construction or maintenance	Mechanical Removal	0.4	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.

5. References

DEC Site Visit (2007). Site Inspection Report, Department of Environment and Conservation (DEC). Bunbury, Western Australia. TRIM Ref: DOC43059.
Department of Water (DoW) (2008). TRIM Ref: DOC44086.
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 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.

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.

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)