



1. Application details

1.1. Permit application details

Permit application No.: 1807/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Allan Deane

1.3. Property details

Property: LOT 7114 ON PLAN 118193 (WANDERING 6308)
Local Government Area: Shire Of Wandering
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.5		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
<p>Mattiske Vegetation Complexes:</p> <ul style="list-style-type: none"> - Michibin (Mi) - Open woodland of <i>Eucalyptus wandoo</i> over <i>Acacia acuminata</i> with some <i>Eucalyptus loxophleba</i> on valley slopes, with low woodland of <i>Allocasuarina huegeliana</i> on or near shallow granite outcrops in arid and perarid zones. - Yalanbee (Y6) - Woodland of <i>Eucalyptus wandoo-Eucalyptus accedens</i>, less consistently open forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica-Corymbia calophylla</i> on lateritic uplands and breakaway landscapes in arid and perarid zones. <p>Beard Vegetation Association 4: Medium woodland; <i>marri</i> and <i>wandoo</i></p>	<p>The proposal is to clear 0.5 hectares of native vegetation for the purpose of constructing two dams for fire fighting purposes.</p> <p>The vegetation under application comprises <i>Wandoo woodland</i>. The eastern area under application has very limited understorey comprising <i>Acacia pulchella</i>, <i>Macrozamia riedlei</i> and grasses, with large patches of bare earth. The area has been historically cleared through ringbarking and grazing.</p> <p>The western area under application was burnt twelve months ago and has some remnants of dead understorey present. The vegetation under application is dominated by sparse <i>Allocasuarina spp</i>, with some <i>Wandoo</i>.</p>	<p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)</p>	<p>Vegetation clearing description based on a site visit conducted by DEC officers on 17/05/07.</p> <p>The majority of the area to be cleared is in a degraded condition, with some areas of good condition which were confined to the northeast portion of the eastern area under application. Due to the recent fire in the western area under application and a poor rain season, there is little evidence of regrowth, so it is difficult to assign a condition rating, however it is likely to be degraded to good.</p> <p>The optimal location of the proposed dams within the applied area was determined by the land topography and the limited extent of vegetation cover. The applicant proposes to harvest timber from the area under application for fencing and firewood purposes prior to dam construction.</p>

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 vegetation under application is 0.5ha which is considered to be in degraded condition with some small areas of good vegetation, with understorey limited to *Acacia spp*, *Macrozamia riedlei* and grasses. Vegetation outside the area under application was observed as being in good condition and is not of the same degraded condition as that in the applied area.

Given the small area under application is mostly of a degraded condition and the low species diversity of the

vegetation under application, it is not considered likely to be representative of an area of higher biological diversity, especially when compared to remnant vegetation in the local area that is in good or better condition.

Methodology DEC Site visit - 17/05/07

(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 (5km radius) there are three recorded species of Priority (4) Fauna, the Western Brush Wallaby (*Macropus ima*), the White-browed Babbler (*Pomatostomus superciliosus*), and the Bush Stone-curlew (*Burhinus grallarius*).

The vegetation under application has been historically cleared through ringbarking and grazing and has an understorey limited to very occasional *Acacia spp*, *Macrozamia riedlei* and native grass. The limited understorey within the vegetation under application is likely to limit the habitat value for ground dwelling fauna such as the Western Brush Wallaby.

During the site inspection no hollows were observed in trees that could potentially be utilized as habitat, with the trees under application not considered to be of hollow-bearing age. In addition the White-browed Babbler and Bush Stone-curlew require suitable understorey and midstorey vegetation coverage for nesting and foraging purposes (Simpson & Day 2004). Due to the sparse understorey within the vegetation under application, it is not considered likely to provide suitable habitat for these bird species.

Although the vegetation under application may provide some foraging habitat for fauna species in the local area, it is not considered likely to be significant, given the lack of hollows, limited understorey and the limited size of the area under application.

Methodology DEC Site visit - 17/05/07
GIS Databases:
SAC Bio datasets 02/05/07

(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 no known populations of Declared Rare Flora (DRF) within a 20km radius of the area under application. There is one species of Priority listed flora (*Eucalyptus latens*) (P4) which has four known populations located approximately 4.3km northwest of the western applied area.

Given the absence of DRF within the proximity of the applied area and that there were no visual sightings of the Priority flora during the site inspection, it is not considered likely that the vegetation under application includes, or is necessary for the continued existence of, rare flora.

Methodology GIS Database:
Declared Rare and Priority Flora List - CALM 01/07/05
SAC Bio datasets 27/05/07

(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 occurrences of Threatened Ecological Communities (TEC) within the local area (20km), the closest is located approximately 50km northeast of the area under application. This TEC is associated with a wetland on clay soils. Given that the applied area has ironstone gravel and sandy soils with no wetland vegetation observed during the site inspection, it is not considered likely that the vegetation under application comprises, or is necessary for the maintenance of, a TEC.

Methodology DEC Site visit - 17/05/07
GIS Database:
SAC Bio datasets 02/05/07
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 likely to be at variance to this Principle

Mattiske (1988) defines the vegetation under application as 'Michibin' and 'Yalanbee' complexes of which there is 26.5% and 51.4% respectively of pre-European extent remaining and which are described as being of 'vulnerable' and 'least concern' status respectively for biodiversity conservation (Department of Natural

Resources and Environment 2002).

The vegetation under application is also described as Beard vegetation association 4, which has a representation of 23.3% of pre-European extent remaining (Adapted from Shepherd et al. 2001) and which is considered to be of a 'vulnerable' status for biodiversity conservation (Department of Natural Resources and Environment 2002). The vegetation under application is also within the Shire of Wandering of which there is 61.3% of pre-European extent remaining and the local area (10km radius) has 34% remaining.

The Beard vegetation association 4 and 'Michibin' complex have less than the 30% of pre-European extent remaining as recommended in the National Objectives Targets for Biodiversity Conservation 2001-2005 (AGPS 2001). The vegetation under application is located within a large portion of remnant vegetation which is considered to be significant in the local area, which has been extensively cleared for agriculture.

However, the proposed clearing of 0.5ha is not considered likely to impact this remnant. The proposal therefore is not likely to be at variance to this Principle.

	Pre-European (ha)	Current (ha)	Remaining %	Conservation status***	% in reserves
Jarrah Forest	4,554,335	2,665,480	58.7%*	Least concern	
Shire of Wandering	188,407	115,462	61.3%*	Least concern	
Local Area (~10km radius)	~31,400	~10,909	~34.0%	Depleted	
Mattiske vegetation complex					
Michibin (Mi)	1,345,524	356,512	26.5%	Vulnerable	
Yalanbee (Y6)	1,583,884	814,609	51.4%	Least concern	
Beard vegetation association 4	1,054,316	245,361	23.3%**	Vulnerable	6.3

* (Shepherd et al. 2001)

** (Adapted from: Shepherd et al. 2001)

*** (Department of Natural Resources and Environment 2002)

Methodology GIS Databases:
Department of Natural Resources and Environment (2002)
Mattiske Consulting (2006)
Shepherd et al (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 is not likely to be at variance to this Principle

There are no wetlands recorded within a 20km radius of the area under application, however there are five known watercourses. The closest of these watercourses is the Wandering Brook which is located approximately 9km west of the western area under application and the Hotham River which is situated approximately 6km to the southeast of the eastern applied area.

Given the distance to nearest watercourse, and that no wetland dependent vegetation was observed during the site visit, the vegetation under application is not considered likely to include vegetation growing in, or in association with, an environment associated with a watercourse or wetland.

Methodology DEC Site visit - 17/05/07
GIS Databases:
Hydrography, linear (hierarchy) - DOW

(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

Soils within the western area under application comprise ironstone gravels and sandy soils; and in the eastern applied area the chief soils are sandy or acidic mottled yellow soils containing ironstone gravels (Department of Agriculture 2004).

The area under application is associated with a low to nil risk of salinity and the proposed clearing of 0.5ha is not likely to impact upon the salinity risk. The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be wind erosion and water erosion. Given that the area under application is surrounded by *Wandoo* woodland which will reduce wind velocity, it is considered that the risk of wind erosion is low.

In addition the slope of the land will mean run off or water erosion will flow into the dam. Given this and the limited size of the areas under application, it is considered that the proposed clearing is not likely to cause water erosion resulting in appreciable land degradation.

Methodology DEC Site visit - 17/05/07
Department of Agriculture (2004)
GIS Databases:
Salinity Risk LM 25m - DOLA 00
Soils, Statewide - DA 11/99

(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 Moomagul Nature Reserve is located approximately 10.3km northeast of the eastern area under application and the Lol Gray State Forest is located approximately 14.2km southeast of the western applied area.

Given that the area under application is (0.5ha) and given the distance to the nearest conservation areas, it is not considered likely that the proposed clearing would impact on the environmental values of the nearest conservation reserves.

Methodology GIS Database:
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 is not located within a Public Drinking Water Source Area (PDWSA) and has a nil to low risk of salinity. The proposed clearing is therefore not likely to have an impact on ground water quality.

The nearest watercourses are the Hotham River which is situated approximately 6km to the southeast of the eastern applied area and the Wandering Brook which is located approximately 9km west of the western area under application. Given the distance to these watercourses, it is not considered likely that the proposed clearing would have an impact on the surface water quality of these water bodies.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be water erosion.

Given the small area under application, the proposed clearing is not considered likely to cause deterioration in the quality of surface or underground water.

Methodology DEC Site visit - 17/05/07
GIS Databases:
Groundwater Salinity, Statewide - DOW
Hydrography, linear (hierarchy) - DOW
Public Drinking Water Source Areas (PDWSAs) - DOW
Salinity Risk LM 25m - DOLA 00

(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 area under application is located approximately 6km to the northwest of the Hotham River and approximately 9km to the east of Wandering Brook at an elevation of 300m. Given that the area under application is 0.5ha, it is not considered likely that the proposed removal of vegetation would impact on peak flood height or duration.

Methodology GIS Databases:
Hydrography, linear (hierarchy) - DOW
Topographic Contours, Statewide - DOLA 12/09/02

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

Comments
No submissions received.

The lot under application is part of a Native Title Claim however, since it is privately owned Native Title is extinguished under the Native Title Act. Therefore the clearing as proposed should not fall under the future acts process of the Native Title Act 1993.

The area under application does not encroach upon a Proclaimed watercourse and does not intercept

Methodology groundwater, therefore a dam permit is not required from the Department of Water.
 GIS Databases:
 Native Title Claims - DLI 7/11/05

4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Dam construction maintenance	Mechanical Removal	0.5	The assessable criteria have been addressed. The proposed clearing is unlikely to be at variance to the clearing principles.	

5. References

AGPS (2001) The national objective and targets for biodiversity conservation 2001-2005. Commonwealth of Australia, Canberra.

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.

EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.

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.

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.

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001a) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia (updated 2005).

Simpson, K. & Day, N. (2004) Field Guide to the Birds of Australia, Penguin Group (Australia), Camberwell, Victoria.

Western Australia Department of Agriculture (2004) Soil-landscape mapping, Western Australia Department of Agriculture, Date accessed 01/05/04.

6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)

