



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2350/1  
 Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: MR Mark James Purling

### 1.3. Property details

Property: LOT 209 ON PLAN 21543 (Lot No. 209 TAMMA BAKERS HILL 6562)  
 LOT 209 ON PLAN 21543 (Lot No. 209 TAMMA BAKERS HILL 6562)  
 Local Government Area: Shire Of Northam

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.4		Mechanical Removal	Grazing & Pasture

## 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
Mattiske vegetation complex: Coolakin complex- Woodland of Eucalyptus wandoo with mixtures of Eucalyptus patens, Eucalyptus marginata subsp. thalassica and Corymbia calophylla on the valley slopes in arid and perarid zones.	The applied area of 0.4ha is located within Lot 209 (2.5ha) on plan 21543. The purpose for the clearing is grazing and pasture.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition of the native vegetation under application was sourced from the Site Inspection (2008). The vegetation was considered to be in overall very good condition.
Beard vegetation association 4- Medium woodland; Marri and Wandoo.	The proposed clearing of 0.4ha is in very good condition, consisting predominately of Eucalyptus wandoo with E. marginata. The middle storey consists of immature E. wandoo and a small population of Dryandra sessilis. The ground is sparsely covered with native Hakea, Melaleuca and Macrozamia species with minimal weed invasion. The area under application is re-growth with evidence of past logging (Site inspection 2008).		
Hedde vegetation complex: Yalanbee complex in low rainfall- No description available.			
	Mr Purling advised that the mature trees would be retained.		

## 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 proposed clearing of 0.4ha is in very good condition, consisting predominately of Eucalyptus wandoo with E. marginata. The middle storey consists of immature E. wandoo and a small population of Dryandra sessilis. The ground is sparsely covered with native Hakea, Melaleuca and Macrozamia species with minimal weed invasion. The area under application is considered re-growth with evidence of past logging (Site inspection

2008).

The closest record of a Priority species is *Asterolasia grandifolia* (P4), recorded 1.7km south of the applied area. *A. grandifolia* is a slender open shrub with pink flowers that are in bloom from July to October (West Australian Herbarium).

The applied area does have potential to provide suitable habitat for the shield-backed trapdoor spider (Vulnerable). However, it is not considered likely to provide suitable habitat for larger species such as the bush stoned-curlew (P4).

Given the small size and low species density of the area under application it is not considered likely that it comprises of a high level of biological diversity.

**Methodology**    **References**  
- Site Inspection (2008)  
- West Australian Herbarium (2008)

**(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**

There are two records of two fauna species of conservation significance within the local area (5km radius) including:

- Shield-backed trapdoor spider (*Idiosoma nigrum*) (Vulnerable) with the nearest record being 2km south.
- Bush stone-curlew (*Burhinus grallarius*) (P4) with the nearest record being 3.9km south.

The bush stone-curlew prefers open woodlands near watercourses or swamps and requires fallen logs for nesting. Although there were several fallen logs within the applied area it is not considered likely to provide sufficient habitat due to the distance to the nearest watercourse or wetland.

The area under application may provide suitable habitat for the shield-backed trapdoor spider (DEC 2008). However, given the high level of native vegetation within the local area and the small area applied to be cleared it is not considered likely to be significant.

Given the small area applied to be cleared, the distance from the nearest wetland and the high amount of remnant vegetation within the local area it is not considered likely that the vegetation under application comprises the whole or a part of, or is necessary for the maintenance, a significant habitat for fauna indigenous to Western Australia.

**Methodology**    **References:**  
- Site Inspection (2008)  
- DEC (2008)  
**GIS Databases:**  
- SAC Biodata sets16/01/2008

**(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**

The nearest Declared Rare Flora (DRF), *Acacia aphylla* is located approximately 7.6km east of the area under application. *A. aphylla* is a shrub that ranges from 0.9 to 2.5m high that is in flower from August to October and occurs predominately on granite outcrops and hills.

*A. aphylla* occurs within the same vegetation association as the applied area but in a different soil type. *A. aphylla* specimens recorded in the area grows in association with granite outcrops or boulders.

Given *A. aphylla* occurs within a different soil type as the area under application and that there are no granite outcrops or boulders within the applied area the vegetation applied to be cleared is not considered likely to include of be necessary for the continued existence of rare flora.

**Methodology**    **Reference:**  
- Site Inspection (2008)  
- West Australian Herbarium (2008)  
**GIS Database:**  
- SAC Biodatasets 13/3/08  
- 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 (TEC) in the local area (5km radius). The closest TEC is identified as Species Community Type 3c- Eucalyptus calophylla; Xanthorrhoea preissi woodlands and shrublands, located approximately 39km west of the applied. SPC 3a occurs within a different soil type and vegetation association than the area under application.

Given the site inspection (2008) identified the applied area as open wandoo woodland, it is not considered likely that the vegetation under application comprises the whole or part of, or is necessary for the maintenance of a TEC.

**Methodology** Reference:  
 - Site Inspection (2008)  
 GIS Database:  
 - SAC Bio Datasets 130308

**(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 within the area under application is identified as a component of Beard vegetation association 4 and Mattiske vegetation complex- Coolakin complex, which have current representation levels of 23.3% and 42.9% respectively (Shepherd 2006, CALM 1998).

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present Pre-European settlement (Commonwealth of Australia 2001).

Although the Beard vegetation association is below the recommended 30% of pre-European extent, Mattiske vegetation representations have a greater accuracy for the Darling Scarp Bioregion, based on the scale of vegetation mapping. The identified Mattiske vegetation complex has a representation above the recommended minimum level of 30%, as recognised by the State Government (Commonwealth of Australia 2001)

Given the small area applied to be cleared and the current representation level of the Mattiske vegetation complex-Coolakin complex, it is not considered likely that the vegetation under application is significant as a remnant.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregions				
Jarrah Forest**	2,390,590	1,642,606	68.7	
Shire of Northam **	141,410	33,229	22.1	
Beard Vegetation type:**				
4	1,054,316	245,361	23.3	18.2
Mattiske vegetation complex*				
- Coolakin complex	1,338,912	573,908	42.9	
Hedde Vegetation complex***				
Yalanbee complex	No Information			

CALM 1998\*  
 Shepherd 2006\*\*  
 EPA 2006\*\*\*

**Methodology** References:  
 - CALM (1998)  
 - Commonwealth of Australia (2001)  
 - EPA (2006)  
 - Shepherd (2006)  
 GIS Databases:  
 - Hedde Vegetation Complexes DEP 21/06/95  
 - Interim Biogeographic Regions of Australia EA 18/10/00  
 - SAC Bio Datasets 14/03/08

**(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 or watercourses mapped within the local area (2km radius). A site inspection (2008) confirmed there is no wetland dependent vegetation growing within the applied area. Therefore, it is not considered likely that the vegetation is growing in, or in association with, an environment associated with a watercourse or wetland.

**Methodology References:**

- Site Inspection (2008)

GIS Databases:

- Geomorphic wetlands (Mgt Categories)- Swan Coastal Plain DEC

- Hydrography, hierarchy - DOE 01/02/04

**(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 under application gently slopes in a southerly direction which may contribute to water erosion. However, this will be mitigated by the fact that all mature trees within the area will be retained. The soils within the area are also mapped as having a low risk of salinity.

Given that the mature trees will be retained it is not considered likely that the proposed clearing will cause appreciable land degradation.

**Methodology Reference**

- Site Inspection (2008)

GIS Database

- Salinity Risk LM 25m - DOLA 00

**(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**

There are no Bush Forever sites or DEC managed lands within the local (2km radius). The closest DEC managed area is classed as a nature reserve which is located approximately 2.6km west of the applied area.

Given no Bush Forever sites or DEC managed lands occur within the local area and the distance to the nearest conservation reserve, the proposed clearing of the vegetation is not considered likely to have an impact on the environmental values of any adjacent or nearby conservation area.

**Methodology GIS databases:**

- Bushforever - MFP 07/01

- DEC Managed Lands and Waters - CALM 1/07/05

- System 6 Conservation Reserves - DEP 06/95

**(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 prescribed groundwater area or a Public Drinking Water Source Area. The nearest watercourse is located approximately 3.2km to the north east of the area under application.

The soils within the area under application may have higher risks of water erosion due to the undulating topography of the land. However, all mature trees within the area will be retained which will greatly reduce the risk of water erosion. Therefore, water erosion is not considered likely to cause deterioration in surface water quality through sedimentation.

The soils within the applied area are mapped as having low risks of salinity. Therefore, salinity is not likely to cause deterioration in ground water quality as a result of the proposed clearing.

Based on the limited area applied to be cleared and the fact that mature trees will be retained, the proposed clearing is not considered likely to cause deterioration in the quality of surface water or groundwater.

**Methodology GIS Databases:**

- Hydrography, linear (hierarchy) - DOE 13/4/05

- RIWI Act, Groundwater Areas - WRC 13/06/00

- Public Drinking Water Source Areas (PDWSA's) - DOE 09/08/05

**(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**

There are no wetlands or watercourses mapped within the local area (2km radius). A site inspection (2008) confirmed there is no wetland dependent vegetation growing within the applied area.

Given the distance to the nearest wetland or watercourse and the small area of vegetation applied to be cleared the proposed clearing is not considered likely to cause, or exacerbate, the incidence or intensity of flooding.

**Methodology GIS Databases:**

- Hydrography, linear - DOE 1/2/04
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE 15/9/04

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

**Comments**

Submission (2008) advised that the vegetation be retained due to its condition and clearing may cause problems for neighbours down slope. The submission also recommends that if the application is granted the proponent be made to carry out revegetation works on Lot 209 equal in the area to that proposed to be cleared.

There are no aboriginal sites of significance within the applied area.

The applied area is zoned special rural and is freehold land.

**Methodology GIS Databases:**

- Aboriginal Sites of Significance- DIA 20/03/03
- Cadastre
- Town Planning Scheme Zones- MFP 08/98

**4. Assessor's comments**

Purpose	Method	Applied area (ha)/ trees	Comment
Grazing & Pasture	Mechanical Removal	0.4	The assessable criteria have been addressed and the clearing as proposed is not considered likely to be at variance to any of the clearing Principles.

**5. References**

Commonwealth of Australia (2001) National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS, Canberra.

EPA (2006) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.

Gibson N., Keighery B., Keighery G., Burbidge A. and Lyons M. (1994). A Floristic Survey of the Southern Swan Coastal Plain. Western Australian Department of Conservation and Land Management and the Western Australian Conservation Council.

Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

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. (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.

Site Inspection (2008) Site Inspection Report, Department of Environment and Conservation (DEC), Western Australia, TRIM Ref DOC49541.

Submission (2008) Direct interest submission received 24/03/08, TRIM Ref DOC48887.

Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.calm.wa.gov.au/> (Accessed xx/xx/xxxx).

## 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)