



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1033/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Peter-Chris & Mary Elizabeth Walker

### 1.3. Property details

Property: LOT 1731 ON PLAN 123504 ( WILGA WEST 6243)

Local Government Area: Shire Of Donnybrook-Balingup

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
300		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 CC1 Catterick: Open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla mixed with Eucalyptus patens on slopes, Eucalyptus rudis and Banksia littoralis on valley floors in the humid zone.	The proposal includes 300ha of remnant vegetation that has been thinned in the past. The over storey is predominantly Eucalyptus marginata and Corymbia calophylla. Other species found during a site visit included	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The vegetation was observed through a site visit in August 2006. The site visit reported that although the area had been thinned, denser areas occurred near waterways and the condition ranged between 'good and excellent' (Keighery, 1994). The mid storey was missing in parts, however there was a lack of weeds and ground cover was present. (Site Visit report trim ref DOC 5249)
Mattiske WG Wilga: Woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla on sandy-gravels on low divides in the subhumid zone. (Mattiske Consulting, 1998)	* Xanthorrhoea preisii (grass tree) * Microzamia riedlei (zamia palms) * Acacia pulchella (prickly moses) * Drosera spp * Persoonia longifolia (snottygobble) * Pteridium esculentum (bracken)		
Beard Unit 3: Medium forest; jarrah-marri (Hopkins et al, 2001, Shepherd et al 2001)	There were also wetland species found in the low lying areas.		

## 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 proposed area to be cleared is a large area (300 ha) with vegetation in Good to Excellent condition (Keighery, 1994). It is likely given the size of the proposed clearing and the quality of the vegetation that the area under application provides significant fauna habitat and consists of a large diversity of flora species, therefore the clearing is at variance to this principle.

Methodology Site Visit (2006)

**(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 at variance to this Principle**

The proposed area to be cleared is a large area (300 ha) with vegetation ranging from 'Good to Excellent' condition (Keighery, 1994). It is likely given the size of the proposed clearing and the quality of the vegetation that there is notable habitat for fauna within this area. However, the land and vegetation surrounding the proposed clearing, is contained within the Wilga State Forest, and is of comparable or better condition and provides significant habitat for fauna. Clearing of the proposed area will impact on the contiguous nature of the vegetation.

The proposed clearing is surrounded by secured tenure of protected reserve, as such, mature animals with established micro-habitats will be most vulnerable to the proposed clearing. Therefore given the large scale clearing it is highly likely significant habitat for local native fauna will be impacted.

**Methodology** Site Visit, 2006  
GIS Database:  
- CALM Managed Lands and Waters - 01/07/05  
- Bridgetown Dinninup 50cm Orthomosaic - DLI 03

**(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 significant flora species or Declared Rare Flora within a 10km radius of the proposed clearing, therefore it is unlikely that the proposed clearing is necessary for the continued existence of rare flora.

**Methodology** GIS Database:  
- Declared Rare and Priority Flora List - CALM 01/07/05

**(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 a 10km radius of the proposed clearing.

**Methodology** GIS Databases:  
- Threatened Ecological Communities - 12/04/05

**(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 (ha)	Current Extent remaining (ha)	Remaining Veg (ha) %	Status	
<b>IBRA Region</b>				
Jarrah Forest	4,544,335	2,665,480	58.7	Least Concern
<b>Shire of Donnybrook- Balingup</b>				
	155,142	111,737	72	Least Concern
<b>Beard Unit 3</b>				
Mattiske Complex	3,046,385	2,197,837	72.1	Least Concern
<b>Catterick -CC1</b>				
Wilga - WG	274,435	192,294	70.1	Least Concern
	381,574	272,761	71.5	Least Concern

The above table shows that all vegetation groupings fall within the status of Least Concern with large amounts of representative vegetation remaining throughout local and regional levels.

Clearing the proposed area would result in a 0.2% reduction of vegetation within the shire boundary.

**Methodology** Shepherd, 2001  
Hopkins, 2001  
GIS Databases:  
- Mattiske Vegetation - CALM 24/03/98  
- Pre-European Vegetation - DA 01/01  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00  
- Local Government Authorities - DLI 08/07/04

**(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 at variance to this Principle**

A report from DAWFA (2006) indicates that the property is dominated by the Wilga Wet Flats Phase which is marked with vegetation such as paperbarks, sedges, rushes, flooded gums and tea-tree (DAFWA, 2006). In addition there are minor perennial watercourses running throughout the proposed clearing area. The proposed clearing is therefore at variance to this principle.

**Methodology** Site Visit Report, 2006  
DAFWA Advice, 2006  
GIS Databases:  
- Bridgetown Dinninup 50cm Orthomosaic - DLI 03  
- Hydrography, linear - 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 at variance to this Principle**

The proposed clearing has been assessed by the Department of Agriculture and Food for impacts on land degradation.

The assessment found that the clearing of such a large amount of native vegetation has the potential to alter the nutrient concentrations within the soil. The effect of this is a high risk of eutrophication causing land degradation.

During the assessment a site visit was undertaken and it was noted that some areas on the property were waterlogged and earthworks have been employed in the past to try and control the waterlogging. Given the vegetation of the land and the proposed use for the land, it is thought that the risk of waterlogging is high.

This assessment also found that the risk of wind erosion was low to moderate as was the the risk of water erosion.

Salinity advice provided by the Department of Water (DOW) revealed that clearing within this environment is highly likely to initiate salt release into the waterways to the southeast and southwest.

**Methodology** DAFWA Advice, 2006  
Salinity, DOW, 2006  
GIS Databases:  
- Geology, Statewide - DMPR 01/12/99  
- Groundwater Salinity, Confined Aquifers - WRC 10/01  
- Hydrogeology, Statewide - WRC 05/02/02  
- Soils, statewide - DA 11/99  
- WIN Groundwater Sites, Other-non DEWCP  
- WIN Groundwater Sites, Monitoring - non DEWCP  
- Topographic Contours, Statewide - DOLA 12/09/02  
- Evaporation Isoleths - BOM 09/98  
- Isohyets - BOM 09/98  
- Hydrography, linear (hierachy) - DOW  
- Rivers, 250K - GA

**(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 proposed area to be cleared is surrounded by the Wilga State Forest.

The proposed clearing of 300 hectares adjoining the State Forest will impact on the contiguous links resulting in loss of fauna corridors. Impacts associated with weed invasion and edge effects will decrease environmental values within the adjoining State Forest.

In addition, impacts associated with land degradation including eutrophication, waterlogging and salinity will also devalue the surrounding State Forest.

**Methodology** DAFWA, 2006  
GIS Database:  
- CALM Managed Lands and Waters -01/07/05

**(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 at variance to this Principle**

The proposed clearing area has a clay soil type with a clay and bedrock aquifer. There is a shallow groundwater depth on the property and salinity has been recorded as 300mm TDS, which is noteworthy considering the topography of the property, which is on a hilltop.

Salinity advice provided by DOW stated that the clearing of large amounts of native vegetation is highly likely to initiate salt release into the waterways to the southeast and southwest.

The combination of these factors, plus the size of the clearing, indicates that the proposed clearing is at variance to this principle.

**Methodology Salinity, DOW, 2006**

**GIS Databases:**

- Geology, Statewide - DMPR 01/12/99
- Groundwater Salinity, Confined Aquifers - WRC 10/01
- Hydrogeology, Statewide - WRC 05/02/02
- WIN Groundwater Sites, Other-non DEWCP
- WIN Groundwater Sites, Monitoring - non DEWCP
- Topographic Contours, Statewide - DOLA 12/09/02
- Evaporation Isopleths - BOM 09/98
- Isohyets - BOM 09/98
- Hydrography, linear (hierachy) - DOW
- Rivers, 250K - GA

**(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 may be at variance to this Principle**

An assessment carried out by the Department of Agriculture and Food (DAFWA) found that surface water flows may contribute to stream flows which could result in localised flooding. This may effect local roads and water erosion may occur. DAFWA have placed the risk of flooding as low to moderate.

**Methodology DAFWA, 2006**

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

**Comments**

The proposed area to be cleared does not lie within a RIWI or CAWSA area. As the clearing is for the purpose of agriculture no works approval is required.

The Land Conservation District Committee (LCDC) submitted a proposal raising concerns regarding the presence of significant species. DEC has not requested a survey of these species as the initial assessment indicated that the application would be refused. In addition the LCDC raised concerns about the impact on riparian areas, DEC concurs with these concerns and have noted this under principles (f), (g) and (i).

The Shire of Donnybrook advised that they were not able to make an informed comment on the proposal due to insufficient information.

**Methodology**

**GIS Databases:**

- CAWSA Part IIA Clearing Control Catchments - DOW
- RIWI Act, Areas - WRC 05/04/02

**4. Assessor's comments**

Purpose	Method	Applied area (ha)/ trees	Comment
Grazing & Pasture	Mechanical Removal	300	Assessment against clearing principles has found the proposed clearing to be at variance to principles (a), (b), (f), (g), (h) and (i).

**5. References**

- DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM ref DOC 11330
- 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.

- 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. Salinity and Water Report, 2006, Department of Water, DEC TRIM ref DOC 11789
- 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.
- Site Visit Report, 2006, Department of Environment and Conservation. DEC TRIM Ref DOC 5249

## 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)

