



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2647/1  
 Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Kay Elizabeth and Kenneth Norman Gwynne

### 1.3. Property details

Property: LOT 2 ON DIAGRAM 96686 (Lot No. 2 MUIRILLUP BOORARA BROOK 6262)  
 LOT 2 ON DIAGRAM 96686 (Lot No. 2 MUIRILLUP BOORARA BROOK 6262)  
 Local Government Area: Shire Of Manjimup  
 Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.9		Mechanical Removal	Timber Harvesting

## 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: 27 - Low woodland, paperbark (Melaleuca sp.) (Shepherd 2007)	The proposal is to clear 2 ha of native vegetation within a 5 ha area for silvicultural thinnings.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Description and condition of the vegetation under application was determined from site inspection (DEC 2008).
Mattiske Vegetation Complex: 269 (Collis / Cob) - Tall open forest of Eucalyptus diversicolor - Corymbia calophylla on crests of hills arising above the southern coastal plain in the hyperhumid zone (Mattiske and Havel 1998).	The area under application was clear felled ~60 years ago and currently supports predominantly open Karri (Eucalyptus diversicolor) regrowth with some Marri (Corymbia calophylla) at a basal area of between 15-40m <sup>2</sup> (DEC 2008).  In addition to Karri and Marri the area under application supports a middle storey of Karri Oak (Allocasuarina decussate), Karri Wattle (Acacia pentadenia) and Snoddy Gobble and ground cover vegetation comprises Karri Wattle (A. pentadenia), Hibbertia sp. and some introduced grasses (DEC 2008).  Vegetation within the area under application is considered to be in Good (Keighery 1994) condition (DEC 2008).		

## 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 under application supports open regrowth forest of Karri and Marri over a middle storey of Karri Oak,

Karri Wattle, Peppermint and some Snoddy Gobble and a ground cover of Karri Wattle, Hibbertia and some introduced grasses. The area was clear felled ~60 years ago and is considered to be in good (Keighery 1994) condition (DEC 2008).

Given the vegetation condition within the area under application and the history of disturbance on site the area under application is not considered likely to support high floral diversity.

The area under application is surrounded by State Forest and National Parks and within a 10 km radius of the area under application ~32,155 ha or ~85% of native vegetation is within conservation estate or other Department of Environment and Conservation managed land. Given the level of vegetation reservation within the local area these areas are considered to present higher quality habitat for indigenous fauna than that present within the area under application.

Given the area under application is not considered likely to support high floral diversity or high quality habitat for indigenous fauna, clearing as proposed is not considered likely to support high biodiversity and thus clearing is not considered likely to be at variance to this principle.

**Methodology**    **References:**  
- DEC (2008)  
- Keighery (1994)  
**GIS Databases:**  
- Deep River 50cm Orthomosaic - Landgate 2004  
- CALM Managed Lands and Waters - CALM 01/06/05

**(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**  
Five indigenous fauna species of conservation significance have been recorded within a 10 km radius of the area under application.

The area under application supports open regrowth forest of Karri and Marri, and was previously clear felled ~60 years ago. Vegetation is considered to be in good (Keighery 1994) condition (DEC 2008).

Given the lack of watercourses within the area under application the site is not considered to support suitable habitat for Balstons Pygmy Perch (*Nannatherina balstoni*) (VU), Western Mud Minnow (*Galaxiella munda*) (VU) or Black-striped Minnow (*Galaxiella nigrostriata*) (P3) and given the vegetation structure and composition and history of disturbance on site the site is not considered likely to support suitable habitat for either the Brush-tailed Phascogale (*Phascogale tapoatafa*) (VU) or Tingle Moggridgea Spider (*Moggridgea tingle*) (EN) (DEC 2006; DEC 2008).

Given that the area under application does not comprise significant habitat for fauna indigenous to Western Australia clearing as proposed is not considered likely to be at variance to this principle.

**Methodology**    **References:**  
- DEC (2006)  
- DEC (2008)  
- DEC fauna habitat notes. February 2007  
- Keighery (1994)  
**GIS Databases:**  
- SAC Bio datasets 18/09/2008  
- Hydrography linear - DOW 13/7/06  
- Hydrography linear (hierarchy) - DoW 13/7/06  
- Deep River 50cm Orthomosaic - Landgate 2004

**(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**  
Two species of rare flora are known to occur within a 10 km radius of the area under application. The closest known record of rare flora is *Meziella trifida*, located ~ 1 km south of the area under application.

The area under application supports open regrowth forest of Karri and Marri and lacks areas prone to inundation (DEC 2008).

Given the vegetation types and landforms present within the area under application the site is not considered to support suitable habitat for rare flora (Western Australian Herbarium 1998; Brown et.al. 1998). Given this clearing as proposed is not considered likely to be at variance to this principle.



**Methodology** References:  
 - DEC (2008)  
 - Brown et.al. (1998)  
 - Western Australian Herbarium (1998)  
 GIS Databases:  
 - SAC Bio datasets 18/09/2008  
 - Hydrography linear - DOW 13/7/06  
 - Hydrography linear (hierarchy) - DoW 13/7/06

**(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**  
 No Threatened Ecological Communities are located within a 10 km radius of the area under application. The nearest TEC is an occurrence of the Scott River Ironstone Association located ~84 km west of the area under application.

The area under application supports open regrowth forest of Karri and Marri (DEC 2008).

Given the distance to the nearest occurrence of the Scott River Ironstone Association and that the area under application supports a different vegetation community the area under application is not considered to comprise an occurrence of this or any other TEC and is thus not likely to be at variance to this principle.

**Methodology** References:  
 - DEC (2008)  
 GIS Databases:  
 - SAC Bio datasets 18/09/2008

**(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 area of vegetation under application is associated with Mattiske Vegetation Complex 269 (Collis) and Beard Vegetation Association 27, which have 85.7% and 72.3% pre-European vegetation extent remaining respectively (Shepherd 2007; Mattiske and Havel 1998).

The State government is committed to the National Objectives and Targets for Biodiversity Conservation, which includes targets that prevent the clearing of ecological communities with an extent below 30% of that present pre-1750 (Commonwealth of Australia 2001).

As both vegetation associations mapped within the area under application are above the minimum 30% pre-European extent, clearing as proposed is not considered likely to be at variance to this principle.

	Pre-European area (ha)	Current extent (ha)	Remaining %	% in reserves/DEC-managed land
Bioregion:				
Warren *	833,981	663,141	79.5	67.9
Shire of Manjimup *	696,702	589,728	84.6	52.2
Local Area (10 km radius)	37,955	35,736	94.1	-
Mattiske vegetation complex **				
269 - Collis	218,419	187,148	85.7	-
Beard vegetation associations *				
27	130,385	94,298	72.3	54.3

\* (Shepherd 2007)

\*\* (Mattiske and Havel 1998)

**Methodology** References:  
 - Shepherd (2007)  
 - Mattiske and Havel (1998)  
 - Commonwealth of Australia (2001)  
 GIS Databases:  
 - Interim Biogeographic Regionalisation of Australia - EA 18/10/00  
 - Local Government Authorities - DLI 8/07/04  
 - Mattiske Vegetation - CALM 1/03/1998  
 - Pre European Vegetation - DA 01/01

**(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**

The area under application is located between the Canterbury River ~1 km to the west and Shannon River ~7 km to the east. Several minor perennial watercourses which form tributaries of these rivers are located in the vicinity of the area under application with the nearest tributaries of the Canterbury and Shannon Rivers located ~200 m south and ~140 m east of the area under application, respectively.

The area under application supports open regrowth forest of Karri and Marri (DEC 2008).

Given vegetation within the area under application is not growing in, or in association with an environment associated with a watercourse or wetland clearing is not considered likely to be at variance to this principle.

**Methodology** References:  
- DEC (2008)  
GIS Databases:  
- Hydrography linear - DOW 13/7/06  
- Hydrography linear (hierarchy) - DoW 13/7/06

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments Proposal may be at variance to this Principle**

The area under application is associated with hard, and also sandy, yellow and yellow mottled soils (Northcote et.al. 1960.68).

The area under application is within the high rainfall zone of the south west receiving ~1050-1100 mm of rainfall and ~1200-1400mm of evaporation annually and is located in an area of high relief within the landscape with topography ranging from ~107-115 m above sea level.

Given the high level of rainfall the area receives, the sandy nature of soils on site and the slope of the land within the area under application clearing may expose soils prone to water born soil erosion.

Vegetation Management conditions will be placed on the permit to mitigate any impacts of water erosion. Therefore, the clearing may be at variance to this principle.

**Methodology** References:  
- Northcote et al. (1960-68)  
GIS Databases:  
- Average Annual Rainfall Isohyets - WRC 29/09/98  
- Annual Evaporation Contours (Isopleths) - WRC 29/09/98  
- Soils, Statewide DA 11/99  
- Topographic contours statewide - DOLA and ARMY 12/09/02

**(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 is surrounded by State Forest and National Parks with Shannon National Park located ~230 m east being the closest conservation estate to the area under application.

Within a 10 km radius of the area under application ~32,155 ha or ~85% of native vegetation is within conservation estate or other Department of Environment and Conservation managed land.

The area under application is well connected to Shannon National Park and Boorara Gardner National Park which cover a large percentage of the local area (10 km radius). In order to prevent the potential spread of dieback and weeds into these conservation areas, hygiene procedures will be a condition of the permit.

As the connectivity of vegetation in the local area is largely intact, the proposed clearing is unlikely impact on the environmental linkage values of local conservation areas and is not considered likely to be at variance to this principle.

**Methodology** GIS Databases:  
- CALM Managed Lands and Waters - CALM 01/06/05



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

The area under application is located between the Canterbury River ~1 km to the west and Shannon River ~7 km to the east. Several minor perennial watercourses which form tributaries of these rivers are located in the vicinity of the area under application with the nearest tributaries of the Canterbury and Shannon Rivers located ~200 m south and ~140 m east of the area under application, respectively.

The area under application supports deep rooted perennial vegetation (Mattiske and Havel 1998) and within a 10 km radius of the area under application ~ 35,736 ha or 94% of the landscape retains native vegetation.

Given the area under application is associated with sandy soils (Northcote et.al. 1960.68), is within the high rainfall zone of the south west and is located in an area of high relief with sloping topography it is considered that the area under application may be prone to water born soil erosion. As the closest watercourse is 140m away from the proposed clearing, the impacts are likely to be minimal.

Additionally, vegetation management conditions will be placed on the permit to mitigate any impacts of water erosion that may affect these nearby watercourses.

**Methodology References:**

- Mattiske and Havel (1998)
  - Northcote et.al. (1960.68)
- GIS Databases:
- Evapotranspiration Isopleths - WRC 29/09/98
  - Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
  - Topographic Contours, Statewide - DOLA 12/09/02
  - NLWRA, Current Extent of Native Vegetation 20 Jan 2001
  - Hydrography linear - DOW 13/7/06
  - Hydrography linear (hierarchy) - DoW 13/7/06

**(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 associated with an area of steeply sloping relief with topography ranging from ~107-115 m above sea level and is associated with hard, and also sandy, yellow and yellow mottled soils (Northcote et.al. 1960.68).

Given the topography of the area under application and the sandy nature of soils on site it is considered unlikely that clearing as proposed will cause or exacerbate the incidence of flooding. Thus clearing is considered not likely to be at variance to this principle.

**Methodology References:**

- Northcote et.al. (1960-68)
- GIS Databases:
- Topographic Contours, Statewide - DOLA 12/09/02

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

**Comments**

A submission has been received from the Shire of Manjimup (submission 2008) stating that in the event of a permit being granted by Department of Environment and Conservation the applicant is to confer with the Shire of Manjimup with respect to the need to comply with requirements relating to the Town Planning Scheme, local laws and legislation regarding the movement of heavy vehicles on shire roads.

**Methodology References:**

- submission (2008)

**4. Assessor's comments**

**Comment**

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 may be at variance to principle (g) and (i).

**5. References**

Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.  
Commonwealth of Australia (2001) National Targets and Objectives for Biodiversity Conservation 2001-2005, AGPS,

Canberra.

- DEC. (2006). NatureBase - Fauna Species Profile: Brush-tailed Pahscogale. Accessed at <http://www.naturebase.net/content/view/840/1288/>. Accessed 12/09/2008. Department of Environment and Conservation, Western Australia.
- DEC. (2008). Regional Advice Report, clearing permit application CPS2647/1. Perth, Western Australia, Department of Environment and Conservation. TRIM Ref. DOC63481.
- 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, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- 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. (2007). 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.
- 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.
- Submission. (2008). Shire of Manjimup: Application to clear native vegetation - Lot 2, Location 12085 Murillup Road, Boorara Brook. TRIM Ref. DOC64362.
- Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.calm.wa.gov.au/> (Accessed 07 October 2008).

## 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)