



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2433/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: MR Ronald Shane & Kareen Murray Love

### 1.3. Property details

Property: LOT 501 ON PLAN 18005 ( BADGINGARRA 6521)  
LOT 501 ON PLAN 18005 ( BADGINGARRA 6521)  
Local Government Area: Shire Of Dandaragan  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
29		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
Beard Vegetation type 1031: Mosaic: Shrublands; hakea scrub-heath / Shrublands; dryandra heath	The area under application consists of isolated paddock trees, with no understorey or middle storey. The three species observed were Eucalyptus todtiana, Banksia menziesii and Nuytsia floribunda.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Condition and species of vegetation were obtained during a site visit in 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 proposed to be cleared is in 'degraded' condition (Keighery, 1994) and consists of scattered paddock trees. There is no understorey or middle storey and the area has been, and is currently, grazed by stock.  
  
There were three main species of native vegetation observed during a site visit (2008), Blackbutt (Eucalyptus todtiana), Banksia (Banksia menziesii) and Christmas Tree (Nuytsia floribunda).  
  
Vegetation in a nearby paddock which had been ungrazed was in 'very good' condition (Keighery, 1994) and was more distinctive of vegetation from that region, with hakea scrub heath, shrublands and mallees.  
  
Given these factors the area proposed to be cleared is not considered to have high levels of biodiversity and is therefore not likely to be at variance with this principle.

**Methodology** Keighery, 1994  
Site Visit Report, 2008  
DAFWA, 2008  
Shepherd, 2006  
GIS Databases:  
- Badgingarra 50cm Orthomosaic - Landgate 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 not likely to be at variance to this Principle**  
The area proposed to be cleared is in a 'degraded' condition (Keighery, 1994) and consists mainly of scattered

blackbutts (*Eucalyptus todtiana*) and banksias (*Banksia menziesii*). There is no understorey or middlestorey, and very little leaf litter. The paddock trees are isolated with no connecting canopy and there are few dead trees and logs.

Surrounding vegetation within the local area (10km radius) offers fauna habitat in better condition with larger vegetated areas and connected remnants

Given these factors the application area is unlikely to provide significant habitat for native fauna.

**Methodology** Site Visit Report, 2008  
 GIS Databases:  
 - SAC Biodatasets - accessed 17 June 08  
 - Badgingarra 50cm Orthomosaic - Landgate 2006

**(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**  
 Within the local area (20km radius) there are four known species of rare flora recorded:  
 - *Eucalyptus absita*  
 - *Dryandra serratuloides* subsp *perissa*  
 - *Eucalyptus crispata*  
 - *Eucalyptus leprophloia*  
 The preferred habitat characteristics of these species is not found within the area proposed to be cleared, therefore it is unlikely that they would be found in the application area.

**Methodology** Site Visit Report, 2008  
 GIS Databases:  
 - Soils, Statewide - 1999  
 - SAC Biodatasets - accessed 17 June 2008  
 - Badgingarra 50cm Orthomosaic - Landgate 2006

**(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 records of Threatened Ecological Communities (TEC) within the local area (20km radius). The area proposed to be cleared does not contain habitat characteristics associated with likely TEC's. It is considered that the proposed clearing is unlikely to be at variance to this principle.

**Methodology** GIS Databases:  
 - SAC Biodatasets - accessed 17 June 2008  
 - Badgingarra 50cm Orthomosaic - Landgate 2006  
 -

**(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 may be at variance to this Principle**  
 The area proposed to be cleared is in 'degraded' condition (Keighery, 1994) and consists mainly of scattered blackbutts (*Eucalyptus todtiana*) and Banksia's (*Banksia menziesii*).

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves DEC Managed Land
IBRA Bioregions*				
Geraldton Sandplain	4,026,769	2,215,659	55.0	N/A
Shire*				
Dandaragan	230,480	72,544	31.5	N/A
Beard Vegetation Complex*				
1031	269,490	93,959	34.9	38.1

\* (Shepherd et al. 2006)

The above figures of remaining vegetation, are above those targeted by the Government (EPA, 2000), however, the area does fall within the Intensive Land Use Zone identified within the Environmental Protection Authority (EPA) Position Statement No.2 on Agriculture Regions. This position statement was implemented due to high levels of

native vegetation clearing which has 'led to a reduction in biodiversity and increase in land salinisation' (p.7 EPA, 2000), and it was recommended that land within this zone be managed to maintain environmental values.

A site inspection by DEC staff assessed the vegetation found within the application area. It was found that the level of biological diversity was not significant and the environmental values of the property were low. In compliment with this assessment, a site inspection by the Department of Agriculture and Food (DAFWA) found that the application area was degraded, there was no evidence of salinity and advised that clearing was unlikely to cause salinity.

The surrounding area (10km radius) has been heavily cleared, however there are still islands of vegetation, both large and small, of remnant vegetation. These islands appear to be characteristic of the local vegetation types and in 'very good' condition (Keighery, 1994) or better. In a local context vegetation type 1031 is well represented with vegetation of better condition than that identified in the application area.

As the area proposed to be cleared has reduced biological diversity and has low environmental value it is not considered to be significant remnant vegetation. Additionally, the local area retains islands of characteristic remnant vegetation providing environmental benefit within the local area to a greater degree than vegetation within the proposed clearing.

**Methodology** Keighery, 1994  
EPA, 2000  
GIS Databases:  
- SAC Bio Datasets - accessed 20 May 2008  
- Badgingarra 50cm Orthomosaic - Landgate06

**(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 within or associated with the proposed clearing. The clearing is therefore not likely to be at variance to this principle.

**Methodology** Site Visit Report, 2008  
GIS Databases:  
- Badgingarra 50cm Orthomosaic - Landgate06  
- Hydrography, linear\_1

**(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 proposed to be cleared has been inspected by the Department for Agriculture and Food (DAFWA). DAFWA (2008) found that the proposed clearing area consisted of yellow deep sands and gravelly pale deep sands, with an underlying sedimentary formation being the Parmelia System which has a groundwater flow system.

Given the soil type and exposed flat surface that clearing would create, DAFWA advice (2008) states that the proposed clearing may be subject to wind erosion. This can be managed by retaining the grasses currently on the property while planting out the perennial crop.

DAFWA also advised that though there may be some increase in recharge to the groundwater system the impact will be negligible and salinity is unlikely to be an issue.

**Methodology** DAFWA, 2008

**(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 proposed to be cleared lies approximately 6km from the nearest conservation area and forms no buffer or obvious ecological linkage to surrounding conservation areas. It is unlikely that the proposed clearing is at variance to this principle.

**Methodology** GIS Databases:  
- CALM Managed Lands and Waters 03  
- SAC bio datasets - accessed 21 May 2008

**(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**

A report by DAFWA (2008) advises that the proposed clearing may increase recharge, however as the Parmelia Formation is such a large groundwater flow system the impact of clearing is likely to be negligible.

As there are no wetlands or watercourses nearby, the proposed clearing will not affect sedimentation, turbidity or nutrient increase in water quality.

**Methodology** DAFWA, 2008  
GIS Databases:  
- Badgingarra 50cm Orthomosaic - Landgate 2006  
- Hydrography, linear 2004

**(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**

As the application area lies within an elevated undulating landscape with sandy soils that provide good drainage it is unlikely that the proposed clearing will cause or exacerbate flooding.

**Methodology** DAFWA, 2008

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

**Comments**

DAFWA have advised that the clearing may be at variance as wind erosion was likely to be increased. However, DAFWA have advised that planting of perennial pasture, which is the purpose of the clearing, will reduce the risk of wind erosion.

The area proposed to be cleared lies within EPA Position Statement No. 2. This policy from the EPA is not supportive of clearing areas of biodiversity value for the purpose of agriculture, in areas of current, and historical, intensive land use. The vegetation within the application area has been assessed as not being significant due to its low biodiversity and environmental values.

**Methodology** DAFWA, 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 is may be at variance to principle (g) and is not likely to be at variance to the remaining principles.

#### **5. References**

- Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- DAFWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture and Food Western Australia. DEC TRIM ref 54211.
- 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.
- 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., 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.

#### **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)

