



## 1. Application details

### 1.1. Permit application details

Permit application No.: 364/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Leslie Norman and Ida Blanche Turner

### 1.3. Property details

Property: LOT 1455 ON PLAN 207830 ( NEEDILUP 6336)  
Local Government Area: Shire Of Jerramungup  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
268		Burning	Cropping

## 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 519. Shrublands; mallee scrub, Eucalyptus eremophila	A site visit supports that the area contains Beard vegetation association 519.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	During the site visit it was observed that there had been a fire through the area within the previous five years and regeneration is of a high quality. A broad (approx 30 m) fire break had also been cleared across part of the remnant bushland.

## 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**  
A site visit indicated that the vegetation was in good condition and consisted of a wide variety of native species. There was evidence that a fire had been through the area in the past and that the vegetation had regenerated with little weed colonisation. The highly cleared nature of the catchment means that this remnant is an important local representation of the vegetation type. The proposal is at variance to this Clearing Principle as the vegetation has a high degree of biodiversity compared to other native vegetation in the local area.

**Methodology** Site visit

### (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 may be at variance to this Principle**  
The proponent indicated in his application that this land was cleared in the 60's by chaining ploughing and burning. However, aerial imagery suggests that natural regeneration has evolved to a point where it could be utilised by local fauna such as the endangered red-tailed phascogale and Western rosella (inland species). In addition, the vegetation is likely to be habitat for priority species such as the Shy Heath Wren, Western Brush Wallaby and Western Whipbird. In a 10km radius around the proposed clearing there is very little remaining native vegetation. In this context the vegetation that is proposed to be cleared is likely to be significant to local fauna and a fauna survey should be carried out to determine the presence of any significant species. The proposal may be at variance with the Clearing Principle.

**Methodology** CALM 2005

### (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, significant flora.

**Comments** **Proposal may be at variance to this Principle**  
There appears to be a medium probability of the proposed clearing being at variance with this principle. CALM

recommends that a flora survey be undertaken at the appropriate time of the year by a suitably qualified botanist, to determine whether the proposed clearing is likely to impact on any declared rare flora species protected by the Wildlife Conservation Act.

**Methodology** CALM 2005

**(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant ecological community.**

**Comments Proposal is not at variance to this Principle**

The nearest Threatened Ecological Community is 50km to the North West. While this site has not been surveyed, there appears to be a low probability of the proposed clearing being at variance with this Principle.

**Methodology** CALM 2005

**(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 at variance to this Principle**

The Mallee Bioregion is highly cleared with only 19.5% remaining. The Shire of Jerramungup is 'depleted' with 43.8% remaining. The vegetation association is fairly well represented. The proposal is not at variance to this principle as the vegetation is fairly well represented. However, if this vegetation was cleared, there would be less than 20ha of vegetation on the property (less than 2%). With the current situation, the property has approximately 29% native vegetation cover (ie 288ha of vegetation on 996ha property). Also, the area within 10km of the proposal is highly cleared, which makes this native vegetation a significant stepping stone.

	Pre-European	Current	Remaining	Conservation	% in
reserves/CALM-					
	area (ha)	extent (ha)	%*	status**	managed land
IBRA Bioregion-Mallee	7,130,281***	806,971***	19.5***	Vulnerable	
Shire of Jerramungup	657,594	287,902	43.8	Depleted	
Beard veg type-519	2,221,704	1,346,958	60.6	Least Concern	18.9

\* (Shepherd et al. 2001) \*\* (Department of Natural Resources and Environment 2002) \*\*\* In intensive land use zone.

**Methodology** Shepherd et al (2001), Department of Natural Resources and Environment (2002)

**(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**

The area of proposed clearing is situated at the top of the Needilup Creek and the Nyerilup Creek watershed, which are significant tributaries of the Upper Gairdner Ri ver. Creeks that are likely to be affected are of first order and under natural vegetation cover are unlikely to have distinct or well developed low flow channels. Flows are also likely to be ephemeral, that is flow occurs immediately after storm rainfall events of sufficient intensity. Clearing across such streams presents a high risk of increasing erosion and therefore downstream sediment deposition. Sediment export from the highly cleared Upper Gairdner catchment is already considered very high as evidenced by extensive sand plumes moving downstream of the South Coast Highway. Stream buffers are essential for maintenance of the natural waterways in this part of the catchment. The Fitzgerald Biosphere Group have opposed any clearing on the basis of the vulnerability of the catchment and waterways. The proposal is at variance to this Principle as the vegetation provides a buffer for watercourses, which are likely to become saline and suffer from sedimentation if the vegetation is cleared. However, the impact could be managed if sufficient stream buffers were retained.

**Methodology** Aerial photograph interpretation, site investigations across the Upper Gairdner River as part of a water quality monitoring project conducted in 1998-2000. GIS dataset: Hydrography linear Department of Environment(1/2/04).

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

**Comments Proposal is seriously at variance to this Principle**

Extensive clearing has occurred in the landscape surrounding Locations 1454 & 1455 therefore the clearing of the remnant could be expected to result in similar outcomes. Salinisation is significant in the catchment, as is excessive sedimentation of the waterways system. Considerable government and community resources have been put into this catchment to address these problems, including fencing of waterways and riparian revegetation.

The Commissioner for Soil and Land Conservation concludes that the proposed clearing of native vegetation on Kent Locations 1454 for cropping, grazing and pasture has the potential to cause on site and off site land degradation in the form of salinity. The proposal is seriously at variance with the Clearing Principle.

**Methodology** Upper Gairdner Catchment Group (1999), DAWA (2005a) DAWA (2005b)

**(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 adjacent conservation areas.

**Methodology** CALM 2005, GIS Database- CALM managed lands and waters- 1/6/04

**(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 Upper Gairdner River hosts a number of river pools currently threatened by excessive nutrients and sediment. Site visits suggest that tributaries carry these materials into the main river. There are water quality data for the main river channel and tributaries, including the Needilup Creek, to support these assertions. It is likely that the clearing will impact on water quality in the river system. The proposal is at variance with this Principle.

**Methodology** Water quality data 1998-2000 (WRC 2000), Site visits to waterways within the catchment by Water and Rivers Commission.

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.**

**Comments** **Proposal is not likely to be at variance to this Principle**

Clearing of catchment vegetation leads to increased surface runoff and the areas involved in CPS363 & CPS 364 may increase flows from significant storm events into the Needilup Creek. However, given the proportion of the area of the Needilup-Nyerilup catchments involved and the highly cleared state of the remainder of the catchment increases in flood risk are not likely to be a significant issue.

**Methodology** WRC (1999) Surface Water Hydrology, Unpublished report SWH 26

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

**Comments**

The proposal is not known to be at variance with any planning instrument or statutory decision.

**Methodology**

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Cropping	Burning	268	Refuse	<p>This proposal is seriously at variance with Clearing Principle (g), at variance with Principles (a), (f) and (i) and may be at variance with Principles (b) and (c). If this vegetation was cleared, there would be less than 20ha of vegetation on the property (less than 2%). With the current situation, the property has approximately 29% native vegetation cover (ie 288ha of vegetation on 996ha property). The clearing proposal would result in significant loss of biodiversity values plus an increase in land degradation.</p> <p>Based on this assessment, it is recommended that the permit application be refused. If the clearing permit application is not refused at this stage, it is recommended that there be a flora and fauna survey carried out to determine the presence of significant species, in accordance with the EPA guidelines (2004a and 2004b).</p>

**5. References**

- CALM (2005) Land Clearing Proposal Advice (TRIM AD98)
- DAWA (2005a) Land degradation assessment report. Department of Agriculture Western Australia. DoE TRIM ref AD130.
- DAWA (2005b) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref AD142.
- 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 (2004a) Guidance for the assessment of environmental factors (in accordance with the Environmental Protection Act 1986). Terrestrial fauna surveys for environmental impact assessment in Western Australia. No 56. Environmental Protection Authority, Perth.
- EPA (2004b) Guidance for the assessment of environmental factors (in accordance with the Environmental Protection Act 1986). Terrestrial flora and vegetation surveys for environmental impact assessment in Western Australia. No 51. Environmental Protection Authority, Perth.

Keighery, BJ (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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.

Upper Gairdner Catchment Group (1999); The Upper Gairdner Catchment Report; unpublished report for Water and Rivers Commission and the Natural Heritage Trust.

WRC (1999) Surface Water Hydrology, Unpublished report SWH 26.