



## 1. Application details

### 1.1. Permit application details

Permit application No.: 322/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: MR William Locke Brockman

### 1.3. Property details

Property: LOT 101 ON PLAN 27461 (Lot No. 101 PEMBERTON-NORTHCLIFFE COLLINS 6260)  
Local Government Area: Shire Of Manjimup  
Colloquial name: Karri plantation

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
15.5		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 1144: Tall forest karri - marri	The area under application was rated to be in Pristine condition (Keighery BJ, 1994) by DoE officers in the Site Report produced in September 2004 for a CAWS application. The area consists of an over-storey of mature Karri with a dense mid-storey of Allocasuarina spp., Agonis spp. and B.grandis. Pasture was noted on the edge of the vegetation.	Pristine: No obvious signs of disturbance (Keighery 1994)	Contrary to the Site Report's finding the applicant believes the area under application has been continuously farmed since 1850 and that it has never been fenced off from stock. He does not believe it is in pristine condition. The Department has considered the applicants comments and stands by it's original conclusions, that the vegetation is in a pristine condition (Keighery BJ, 1994).
Mattiske CRb: Tall open forest of Corymbia calophylla-Eucalyptus diversicolor on upper slopes with Allocasuarina decussata-Banksia grandis on upper slopes in hyperhumid and perhumid zones.			

## 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 may be at variance to this Principle

The area proposed for clearing was rated as being in pristine condition (Keighery BJ, 1994) in the Site Visit Report. The site report identified the vegetation to be a good representation of the Mattiske complex CRb, although some weed encroachment was noted around the edges of the vegetation. Although the applicant informed the Department that the area was subject to thinning in the past and has never been fenced off from grazing stock, the Department still believes the vegetation is in an excellent condition and that any areas that were thinned in the past have regenerated well.

This section of vegetation also borders a large area of state forest. System one-five, seven-twelve areas located near the area under application include the Pemberton National Park, System 2 (Comments good) located - 1.183km W, 5.581 km NNE and 0.535km SSW of the area.

The applicant originally proposed to broadacre clear all vegetation to the eastern boundary of the property. After negotiations with the Department, the applicant has now agreed to retain a 100m strip of vegetation from the eastern border. Although this strip is proposed for thinning the Department believes that once the silviculture operation is completed, the vegetation will regenerate as successfully as it did in the past. The retention of the 100m strip should reduce edge effects to the neighbouring reserve.

Given the condition of vegetation was rated as pristine (Keighery BJ, 1994) and because several conservation areas border the property, the area proposed for clearing is seen to have a high level of biological significance.

For these reasons it can be concluded the proposal may be at variance to this principle.

**Methodology** EPA (2000) - Position Statement No 2  
Keighery (1994)  
CALM Report 2005  
GIS Database:  
- System 1 to 5 and 7 to 12 Areas - DEP 06/95

**(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**

CALM advice was received on the 12/05/05. CALM believes the vegetation is likely to have a modified understorey as a consequence of past management practices, including thinning. CALM acknowledges the applicant's comments regarding the past management of thinning and grazing, however after reviewing the DoE's Site Report photos of the area, believes the vegetation was in good condition.

CALM (2005) reports:

The vegetation that is proposed to be cleared, and referred to by the proponent as 'The Plantation' is likely to have a modified understorey as a consequence of past management practices purported to include thinning for timber production and stock grazing. As a consequence, its value as significant habitat for local fauna, has probably been compromised to some degree.

The area proposed for clearing borders a large area of state forest which as a whole, is likely to support meta-populations of fauna. The property itself also borders state forest on three of its boundaries.

The local area has had approximately 20% of vegetation cleared.

Although the area under application has been recognised as an ecological stepping stone between two reserves, there are several other areas of vegetation existing within the local area, that could be used as alternative transport corridors by fauna.

CALM have advised they believe the existing trees, within the proposed area, are not of a sufficient age to be considered good habitat trees for the bird populations of the area. CALM also identified the possibility of quokka populations being within the local area. Discussions with CALM confirmed the proposed clearing was too far away from the watercourse to the south of the property to impact on any quokka populations inhabiting the area.

In conclusion the local area is well vegetated and other linkages exist between the two reserves. There are two alternative corridors (one north and one south) close to the property, which could be used by fauna to gain access to the state forests.

The clearing proposal, therefore is unlikely to be at variance to this principle.

**Methodology** DoE Site Visit (08/09/04)  
CALM Report 2005

**(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 two populations of *Asplenium aethiopicum* (Priority 4) which are located 5.5 km WSW of the area under application. Both populations are vegetatively linked to the area under application largely over Warren National Park. There are no other records of Declared Rare or Priority listed flora with the local area (10km radius).

CALM advice was received on 12/05/05, and provided the following recommendations.

CALM Report (2005):

Given the likely (modified) condition of the vegetation proposed to be cleared and the paucity of records showing flora taxa of special conservation significance in the vegetation associations of the area, there is a low likelihood of any threatened flora taxa being present on the land under assessment. The proposal is not likely to be at variance to this principle.

Due to the fact no significant flora species have been identified within the proposed area, and given the distance from the recognised priority species, it is unlikely the proposed clearing will be at variance to this principle.

**Methodology** CALM Report 2005  
GIS databases:  
- Declared Rare and Priority Flora List - CALM 13/08/03

**(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 occurrences of Threatened Ecological Communities within a 10 km radius of the proposed clearing.

**Methodology** GIS databases:  
- Threatened Ecological Communities - CALM 15/7/03

**(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**

Pre-European	Current extent (ha)*	Remaining (ha)*	Conservation** (%)*	status
IBRA Bioregion Warren	836,270	724,014	86.6	Least Concern
Shire of Manjimup	705,670	591,748	83	Least Concern
Vegetation type: Beard Unit 1144	201,257	140,235	69.7	Least Concern
Mattiske: CRb	527,433	428,454	81.2	Least Concern

\* (Shepherd et al. 2001)

\*\* (Department of Natural Resources and Environment 2002)

\*\*\* Within the Intensive Landuse Zone

The property under application has a total of 24.91 ha (44%) native vegetation remaining, and if implemented this clearing proposal will leave 15.52ha. It should be noted that of the remaining 15.52ha, the applicant is going to apply to thin 6ha.

CALM advice was received on the 12/05/05, and the following recommendation was provided.

CALM (2005) reports:

The vegetation type that is proposed to be cleared has not been extensively cleared in the past and this clearing application is unlikely to significantly impact on the type of vegetation's residual representation and/or reservation.

All complexes identified have more than 50% of the pre-European vegetation still remaining and are classed as being of 'Least Concern' by the vegetation classes of the Department of Natural Resources and Environment 2002.

The State Government's National Objectives Targets for Biodiversity Conservation 2001-2005 includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750.

All vegetation complexes have more than 50% of vegetation remaining and therefore it can be concluded the proposal is not at variance to this principle.

**Methodology** EPA (2000)  
Department of Natural Resources and Environment (2002)  
Hopkins et al (2001)  
Shepard et al. (2001)  
GIS database:  
-Local Government Authorities - DLI 8/07/04  
-Mattiske Vegetation - CALM 24/03/98  
-Interim Biogeographic Regionalisation of Australia - EM 18/10/00  
-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 Warren River is 195 m south west of the property and there is a minor perennial watercourse 271m north west of area under application.

The proposal does not include any vegetation growing in or in association with either of the identified

watercourses.

It can therefore be concluded the proposal is unlikely to be at variance to this principle.

**Methodology** GIS databases:  
- Hydrography Linear - DoE 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 not likely to be at variance to this Principle**

DAWA advice was received on the 14/02/05 and the following recommendation was provided.  
DAWA (2005) reports:

Water erosion: There is a chance of increased water erosion in the southeastern section of the clearing proposal. The reports states that the risk can be managed through the maintenance of appropriate levels of ground cover. The proposed use is grazing which should ensure ground cover all year.

Waterlogging: Drainage in the area concerned is well defined and the soils are well drained loamy earths. Provided that appropriate management is applied, there is deemed to be no significant waterlogging risk associated with this proposal.

Salinity: Drainage is well defined in this area, the soil has limited salt store, and in a high rainfall zone. The proposal is not expectd to contribute to salinity.

Wind erosion: there is a limited risk of wind erosion as the proposed cleared areas have loamy textured surface soils. The proximity to surrounding vegetation to the proposed area, reduces the risk, and maintenance of ground cover will further limit the risk of wind erosion.

Given the above information it can be concluded the proposal is unlikely to be at variance to the principle.

**Methodology** Department of Agriculture Report 2005  
GIS database:  
- Topographic Contours, Statewide - DOLA 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 may be at variance to this Principle**

The Warren State Forrest borders the property to the east and south, Gloucester National Park is located 2.3 km north east, Brockman National Park 0.5 km south west and Warren National Park located 1.2 km west of the area under application. All of these National Parks are vegetatively linked to the area under application.

Seven Registered National Estates are found in the local area (10km radius). These include Warren National Park 1.2 km west, East Brook area 2.3 km north east, D Entrecasteaux Area located 8.4 km south west, Karri Management priority Areas 7.7 km south west, Crowea Area 7.5 km south east, Pemberton National Park 5.6 km south east (also a System 5 conservation area) and Giblett - Hawke Area located 0.972 km west of the area under application. All Registered National Estate areas are linked vegetatively to the area under application.

The proposed broad acre clearing will further reduce the connectivity between Warren National Park and the East Brook area (Registered National Estates), however other links between the two will still exist.

The Department has negotiated with the applicant not to broadacre clear the last 100m (approximately 6ha) strip of vegetation to the eastern boundary of the property. The applicant does intend to thin this 6ha, however has agreed to retain the remaining vegetation on completion of the thinning operation. This retained area will reduce edge effects to the conservation areas.

The proposed clearing may impact on the environmental values of the recognised adjacent and nearby conservation areas, in reducing the connectivity between them, and for this reason it can be concluded the proposal may be at variance to this principle.

**Methodology** GIS database:  
- CALM Managed Lands and Waters - CALM 1/06/04  
- Register of National Estate - EA 28/01/03.

**(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**

PDWSAs found within the area under application include the Warren River Water Reserve, CAWS area

(surface water). The CAWS licence has been granted.

The area under application is well drained with a high relief and rainfall. The risk of significant increased salinity as a result of the proposed clearing is low.

DAWA advice was received on the 14/02/05 and the following recommendation was provided.  
DAWA (2005) reports:

Eutrophication: Provided the appropriate fertilizer application techniques are applied, the risk of eutrophication will not be excessive. The soils have high phosphorus retention capabilities, and are not prone to excessive leaching. The application of fertilizer through top dressing does risk nutrients washing into waterbodies by overland flow, however the 175m buffer between the bottom of the clearing and the Warren River should reduce the risk. Leaving more vegetation buffer at the bottom edge of this property will further reduce the risk.

The proposed clearing will increase runoff, however as per the DAWA report, the existing 175m vegetative buffer will act as a filter, decreasing the nutrient load prior to the runoff entering the watercourse.

It can be concluded the proposal is unlikely to be at variance to this principle.

**Methodology** DAWA Report (2004)  
GIS databases:  
- CAWSA Part2A clearing control catchment - DoE 17/11/05  
- Public Drinking Water Source Areas (PDWSAs) - DOE 29/11/04  
- Evaporation Isopleth - BOM 09/98  
- Hydrogeology, statewide - WRC 05/02/02  
- Hydrographic Catchments, Catchments - DoE 3/4/03  
- Rainfall, Mean Annual - BOM 30/09/01  
- Soils, statewide - DA 11/99

**(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**  
Due to the scale of the proposed clearing, flooding is unlikely to occur

**Methodology** Hydrogeological advice (R. Smith, Supervising Hydrogeologist, DoE, pers. comm. 2004)

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

**Comments**

The property is zoned rural.

A Native Title Claim, South West Boojarah, exists over the property, however the claim is extinguished by freehold land.

The application submitted to the Department included areas to be broadacre cleared and areas to be thinned. Mr Brockman has been informed the Department will only be assessing the vegetation to be broadacre cleared. The applicant is aware he is required to apply to CALM for a Commercial Producers Licence, and that the areas proposed for thinning will be assessed by CALM.

A submission was received on 03/01/05. It raised concerns for principles (a), (b), (c), (d). These have been addressed in the report under the relevant principles.

The submission requested consideration also be given to:

a. A site plan indicating slope direction, collection dam(s), and areas of proposed remnant vegetation (including understorey) preservation;

- DAWA (2005) Report identified slope of landscape to vary from 0-18%.

- No dams exist on the property

- The applicant has agreed to retain approximately 6ha of vegetation on the eastern border, once the area has been thinned.

b. A report on the existing environment at the site, including topography, surface hydrology (location of streams and other watercourses), soil mapping; etc

- Topography, surface hydrology (including location of streams and other watercourses) and soil mapping are identified in Principle 'f', 'g' and 'i'. DAWA (2005) Reports also identifies these issues.

c. Written description and mapping of the condition of vegetation on the site, using a recognised vegetation condition scale.

- The condition of vegetation is described in the vegetation description of this report and also in the Site Report

(2004) using Keighery BJ, 1994 .

d. An indication of the commonality of the community (or otherwise) of the vegetation community at the site with respect to surrounding vegetation communities.

- Identified in Principle 'a' and 'e'.

e. Information demonstrating why this land should be used for grazing and pasture, in preference to already cleared sites in the area

- The proposed land use cannot be assessed under the clearing principles of the Environmental Protection Act 1986.

f. A management plan for remaining vegetation

- Negotiation attempts made by the Department with the applicant were successful in the agreement to retain approximately 6ha of vegetation on the property once the area has been thinned of commercially viable trees.

g. A management plan covering key environmental issues such as: nutrient and irrigation management plan, including fertiliser loads and nutrients run-off, with particular regard to an explanation of how off-site effects will be managed; surface water run-off, weed control, proposed nutrient monitoring (including plant tissue analysis etc; and information on possible Aboriginal / European Heritage issues associated with the site.

- Best Management Practices cannot be assessed or enforced under the Clearing Regulations.

- No Aboriginal Sites of Significance or Heritage Sites were identified on the property.

**Methodology** GIS database:

- Town Planning Scheme Zones - MFP 8/98.

- Native Title Claims 19/12/04

#### 4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Grazing & Pasture	Mechanical Removal	15.5	<b>Grant</b>	<p>Assessment of the area under application found none of the clearing principles to be at variance to the proposal, however it was determined that principle's 'a' and 'h' may be at variance.</p> <p>The vegetation proposed for clearing was rated to be in pristine condition and considered to be a good representation of the identified vegetation complex. It should be noted the applicant has informed the Department that past management practices include thinning for timber production and stock grazing. The Department acknowledges this may have reduced the vegetation's biological value to some degree.</p> <p>The fact that this property also borders national parks on many of it's boundaries makes the 9.38ha proposed for clearing valuable in terms of it providing an ecological stepping stone between the reserves.</p> <p>Consideration must be demonstrated for existing vegetation within the local area (10km radius). Aerial photos show approximately 20% of the local area has been cleared, therefore a large majority of native vegetation is still remaining.</p> <p>CALM (2005) Report: The vegetation type that is proposed to be cleared has not been extensively cleared in the past and this clearing application is unlikely to significantly impact on this type of vegetation's residual representation and/or reservation.</p> <p>Although vegetation under application was identified as an ecological stepping stone between the reserves either side of the property, there are several other fauna corridors within the local area. To both the south and north of the property, vegetative links exist. To the south of the property, the Warren National Park is directly linked to the Brockman National Park and to north of the property, the Warren National Park is directly linked to the Warren State Forest.</p> <p>Negotiations with the applicant resulted in an agreement to retain a 100m strip of vegetation (approximately 6 ha) from the eastern boundary. This 6ha is proposed for a silviculture operation. On completion of the thinning operation the remaining vegetation will be left to rehabilitate, and will reduce edge effects to the neighbouring reserve.</p> <p>The Department recognises the proposed clearing may be detrimental to the existing reserves in the local area, by removing an ecological stepping stone. The Department has concluded that the other identified vegetative links within the local area will provide sufficient fauna corridors and linkage between the large areas of state forest.</p> <p>80% of vegetation within the local area still exists, with state forest making up a large proportion of this figure.</p>

The proposal is not at variance to any of the principles and it is therefore recommended a clearing permit be granted for this proposal.

## 5. References

- CALM (2005) Land clearing proposal advice. Department of Conservation and Land Management, Western Australia. DoE TRIM SWO25669
- DAWA (2005) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM SWO24388
- 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.
- Keighery, BJ (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske Consulting (2002) Review of Management Options for Poorly Represented Vegetation Complexes.
- 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
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)