



## 1. Application details

### 1.1. Permit application details

Permit application No.: 146/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Michael Combes

### 1.3. Property details

Property: LOT 1387 ON PLAN 110200 ( QUEENWOOD 6239)  
Local Government Area: Shire Of Donnybrook-Balingup  
Colloquial name: Bangadang Rd

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
28		Mechanical Removal	Horticulture

## 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 Unit 1184: Medium woodland-fringing; jarrah, marri, Eucalyptus rudis & Agonis flexuosa (Hopkins et al. 2001).	The vegetation under application has undergone several disturbances resulting in a simplification of the vegetation species composition and structure. These disturbance factors may include grazing, logging, fires and possibly dieback in some areas.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	Belinda Walker (DoE) and Judith Carter (DoE) undertook initial site visit on the 4th of November 2004. The proponents, Michael and Heather Combes, accompanied the officers.
Mattiske Vegetation Complex Balingup (BL): Open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla on slopes and woodland of Eucalyptus rudis on the valley floor in the humid zone. (Mattiske Consulting 1998)	The vegetation consists of small Jarrah and Marri (mostly Marri) trees with some distance between each tree or stands of trees. The understorey is dominated by Darwinia citriodora (0.5-1.5m tall) with the occasional Xanthorrhoea spp. Other species sighted include Thelymitra macrophylla, Thysanotus rectantherus, Patersonia occidentalis and Comesperma ciliatum. The western and eastern areas under application are on slopes. The western area has a steeper slope and both areas are on either side of a stream. There are potential water erosion problems associated with the western area due to the steep slope. The proponent intends to retain banks of vegetation to mitigate this problem.		
Hedde Vegetation Complex Lowdon. (Hedde et al. 1980).			

### 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 vegetation has low species biodiversity with the understorey dominated by *Darwinia citriodora* and the overstorey consisting of small marri and few jarrah trees (DoE site visit 2004). It consists of a single vegetation type (Heddle et al. 1980; Hopkins et al. 2001; Mattiske Consulting 1998). Three priority listed flora species have been identified in the local area (10km radius) but no Declared Rare Flora.
- The area under application is therefore unlikely to represent an area of higher biodiversity than other nearby areas.
- Methodology** DoE site visit report (2004)  
Heddle et al. (1980)  
Hopkins et al. (2001)  
Shepherd et al. (2001).  
GIS databases:  
- Declared Rare and Priority Flora List - CALM 13/08/03  
- Heddle Vegetation Complex - DEP 21/06/95  
- Mattiske Vegetation - CALM 23/3/98  
- Pre European Vegetation -DA 01/01.

#### (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 report (2004):  
'There appears to be a low probability of the proposed clearing to be at variance with Principle B.'
- 'Although the area under application is relatively large in the local context, it is unlikely to significantly affect the viability of listed Threatened and Priority Fauna, which have the potential to inhabit the locality. Suitable habitat exists in adjacent uncleared areas, namely nearby State Forest Reserves. A suitable buffer to adjacent uncleared areas will be retained following clearing on the property and this will maintain the ecological linkages, which may exist in the surrounding remnant vegetation. In addition, the proponent's intentions are to parkland the existing vegetation and leave a number of trees in the cleared area. This will reduce the potential impact on the wildlife present.'
- Priority listed fauna known to occur in the local area (10km radius) include:  
*Chuditch (Dasyurus geoffroii)* T,  
*Western Ringtail Possum (Pseudocheirus occidentalis)* T,  
*Baudin's Black-Cockatoo (Calyptorhynchus baudinii)* T.
- Methodology** CALM report (2004).  
GIS database:  
- Threatened and Priority fauna - CALM (CALM 2004)\*.  
\*This citation signifies that we do not have access to this database and that our use of it is through the CALM advice provided.

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

- Comments** **Proposal is not likely to be at variance to this Principle**  
CALM report (2004):  
'There appears to be a low probability of the proposed clearing to be at variance with Principle C.'
- There are three Priority 1 flora species (6 specimens and/or 2 populations) within the local area (10km radius). The closest is *Caustis* sp. Boyanup found 4.5km south of the proposed clearing.  
- There are three Priority 3 flora species (12 specimens and /or 5 populations) within the local area. The closest is *Acacia semitrullata* found 3.1km south of the proposed clearing.  
- There is one Priority 4 species, *Drosera marchantii* subsp. *marchantii*, within the local area (8.4km east of the proposed clearing).
- These specimens were not linked to the area under application by vegetation and did not occur on the same Mattiske Vegetation Complex. One specimen of *Acacia semitrullata* occurred on the same Beard Unit (1184) and Heddle Vegetation Complex (Lowdon) as the vegetation under application.
- Methodology** CALM report (2004)  
GIS databases:

- Declared Rare and Priority Flora List - CALM 13/08/03
- Heddle Vegetation Complex - DEP 21/06/95
- Herbarium Specimen Collection Database - CALM (CALM 2004)\*
- Mattiske Vegetation - CALM 23/3/98
- Pre European Vegetation -DA 01/01.
- Threatened Flora Data Management System - CALM (CALM 2004)\*.

\*This citation signifies that we do not have access to this database and that our use of it is through the CALM advice provided.

**(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 likely to be at variance to this Principle**  
There are no Threatened Ecological Communities within the local area.

**Methodology** CALM (2004)  
GIS database:  
- Threatened Ecological Community - 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 at variance to this Principle**  
Only 24% of the pre-European extent of BL Balingup vegetation type remains (Mattiske Consulting 1998). This vegetation type is therefore considered 'vulnerable' (Department of Natural Resources and Environment 2002). The State Government is committed to the National Objectives Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment, 2002; EPA, 2000).

reserves/CALM	Pre-European (ha)*	Current extent (ha)*	Remaining (%)*	Conservation** status	% In managed land
IBRA Bioregion -Jarrah Forest***	4 503 156	2 624 301	58.7	Least Concern	
Shire of Donnybrook -Balingup	155 143	111 737	72.0	Least Concern	
Vegetation type:					
Beard: Unit 1184	76 322	39 423	51.7	Least Concern	0
Mattiske: BL Balingup	594 461	142 670	24	Vulnerable	5.4
Heddle: Lowdon Complex	no information available				

\* (Shepherd et al. 2001)

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

\*\*\* Within the Intensive Landuse Zone

The property has approximately 130 hectares (100%) of native vegetation remaining; if implemented, this clearing proposal will leave 78.5% remaining.

As the area under application consists of predominantly a single species understorey, the vegetation is not considered to be representative of the above mentioned Mattiske vegetation type.

**Methodology** Hopkins et al. 2001; Havel & Mattiske Consulting 2002; Heddle et al. 1980; Mattiske Consulting 1998; Shepherd et al. 2001.  
GIS databases:  
- Mattiske Vegetation - CALM 24/3/98  
- Heddle Vegetation Complexes - DEP 21/06/95  
- 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 at variance to this Principle**  
A minor perennial watercourse (Coolingutup Brook) runs between the two proposed clearing areas (3rd order) and within the northern portion of the western area under application (2nd order). The required vegetated buffer width is 30m on either side of the watercourse (WRC 1996). The proponents have agreed to retain this buffer.

There is a Geomorphic wetland 8.8km north of the proposed clearing, classified conservation. There are also

five Multiple Use Geomorphic wetlands in the local area, the closest being 5.8km north north west of the proposed clearing. There is one Geomorphic wetland that is not assessed 6.7km north of the proposed clearing.

**Methodology** WRC (1996).  
GIS database:  
- 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 may be at variance to this Principle**

DAWA (2004) report:

'Soil map unit, Balingup moderate slopes (BL4), is rated as having 31% with a high risk, 46% with a very high risk and 7% with an extreme risk of water erosion. The proponent has considered this in selecting the proposed area, which has some of the lowest slopes on the property (1 - 15%).'

The proponent is willing to retain banks of vegetation on the contour at intervals down slopes, particularly within the western area, to reduce the risk of water erosion occurring. This matter was discussed with the proponents during the site visit. Good pasture management ensuring adequate amounts of groundcover is maintained will also reduce this risk. These factors combined will minimise the risk of water erosion occurring on this site.

**Methodology** DAWA report (2004).

**(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 at variance to this Principle**

Wellington State Forest borders the property to the north and is 180m from the proposed clearing. There is a vegetated link from the proposed clearing to the State Forest. In addition to Wellington State Forest, there are a number of other conservation areas within the local area (10 km radius). In relation to the vegetation under application they are:

- Boyanup State Forest , 3.7km west;
- Nature Reserve, for the purpose of Conservation of flora and fauna, 4.6km south;
- System 6 Conservation Reserves, 8.6km (part of Boyanup State Forest) north-north east;
- System 6 Conservation Reserve, 3.9km south.

However none of these are linked with the area under application.

Given the extent of native vegetation in the area, the vegetation under application is not likely to play a major role on the environmental values of adjacent conservation areas. CALM report (2004) states that there is limited buffering provided by vegetation under assessment and limited impact on adjacent Wellington State Forest expected from clearing of the vegetation under assessment.

**Methodology** CALM report (2004).  
GIS database:  
- CALM Managed Lands and Waters - CALM 1/06/04  
- System 6 Conservation Reserves - DEP 06/95.

**(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 proposed clearing is within the Leschenault Estuary\_Preston River Catchment.

DAWA (2004) report:

'Most of the soils on map unit, Balingup moderate slopes (BL4), are well drained loamy soils with good moisture and nutrient retention. However the map unit is rated as having 46% with a very high risk and 7% with an extreme risk of phosphorus loss. This is directly related to the risk of water erosion and nutrients moving off site with soil particles during water erosion events. If water erosion is adequately managed it will also manage the risk of exporting nutrients.'

Hydrogeological advice (2004):

'The clearing will mobilise salt from the weathered bedrock and laterite, as a groundwater salinity record of 2200 mg/L to the east illustrates. Most groundwater salinities in the area are below 1000 mg/L so the concern of increased salinity is not great.'

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

**(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 at variance to this Principle**

Due to its scale, flooding impacts are unlikely to occur as a result of the proposed clearing.

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

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

**Comments**

**Methodology**

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Horticulture	Mechanical Removal	28	Grant	<p>Recommended that permit is Granted.</p> <p>The application is at variance with Principle (e). Some of the area under application consists of predominantly a single species understorey, this vegetation is not considered to be representative of the Mattiske vegetation type that has a representation under 30%.</p> <p>The application may be at variance with Principle (g) and (i). Water erosion and eutrophication risks are closely related. The proponents were willing to retain banks of vegetation to mitigate this problem in areas with steep slopes.</p> <p>The proponents were also willing to leave a 30m buffer zone on either side of the watercourse.</p>

**5. References**

- DAWA (2004) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref SWO22539.
- 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.
- Havel, J.J. and Mattiske Consulting Pty Ltd (2002) Review of management options for poorly represented vegetation complexes, Conservation Commission.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- 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, 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.
- WRC (1996) Policy and Guidelines: Granting of Licences to Clear Indigenous Vegetation in Catchments Subject to Clearing Control Legislation. Water and Rivers Commission, Western Australia.