



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1611/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: J H & WP Kagi

### 1.3. Property details

Property: LOT 12 ON PLAN 17105 (House No. 136 WOODLANDS PORONGURUP 6324)

Local Government Area: Shire Of Plantagenet

Colloquial name:

### 1.4. Application

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

## 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
<p>Much of the proposed clearing area has been affect by a serve bushfire in February 2007. Furthermore, the area has been previously cleared under a Soil and Land Conservation Act 3 year permit, for viticulture purposes and consists predominately of relatively sparse regrowth. Photographs from a site visit (DEC, 2007) and aerial photography indicate that the vegetation condition is degraded. Beard Unit 3: Marri Forest; Jarrah - marri</p>	<p>The area under application is to clear 3 ha of native vegetation for the purpose of viticulture. Much of the proposed clearing area has been affect by a serve bushfire in February 2007. Furthermore, the area has been previously cleared under a Soil and Land Conservation Act 3 year permit, for viticulture purposes and consists predominately of relatively sparse regrowth. Photographs from a site visit (DEC, 2007) and aerial photography indicate that the vegetation condition is degraded.</p>	<p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)</p>	<p>Vegetation condition was determined from photographs taken during a site visit March 2007 (DEC, 2007).</p>

## 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 to be cleared is 3ha for the purpose of viticulture. The native vegetation particularly within the area intended to be cleared has been significantly altered in structure and density due to clearing by a previous owner around 1991 under the Soil and Land Conservation Act 3 year permit, prior to the current owner purchasing the land (DEC, 2007). As a consequence of this, the level of floral diversity is diminished, particularly within the application area. From aerial photographs and photographs from the site visit (DEC, 2007), the condition of the vegetation was determined to be degraded (Keighery 1994). Furthermore, as noted on the site visit (DEC, 2007) no visible fauna was present in the proposed clearing area. This may have been due to a serve bushfire in the immediate area a month prior to the visit.

Given the degraded condition of the vegetation within the proposed clearing area, it is unlikely that the application area consists of a high level of biodiversity.

#### Methodology

GIS Layers:  
- Albany - Mt Barker Orthomosaic

DEC Site visit (2007)  
Keighery (1994)

**(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**

Within the local area (10km radius), eight species of rare and endangered fauna have been recorded. Three of these are classified as Threatened Fauna: *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Pseudocheirus occidentalis* (Western Ringtail Possum) and *Macrotis lagotis* (Greater Bilby).

There are no apparent ecological linkages between the *M. lagotis* and the proposed clearing site. Additionally the *P. occidentalis* were sighted in areas with abundant vegetation with linkages to the Porongurup National Park in which *P. occidentalis* are known to reside (DEWR, 2007).

The *C. baudinii* prefers areas of above 750mm rainfall per annum and nesting is confined to Karri tree areas as found within the nearby Porongurup National Park (DEWR, 2007). The application area does not consist of Karri trees within its vegetation complex and the rainfall is below that preferred by *C. baudinii*. They are known to feed on the seeds of Marri trees which are found in the proposed clearing area (DEWR, 2007).

Given the above, it is unlikely that the proposed clearing area is significant for the maintenance of, and significant habitat for fauna indigenous to Western Australia.

**Methodology** GIS Layers:  
- Albany - Mt Barker Orthomosaic  
DEC Site visit (2007)  
DEWR (2007)

**(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**

During the site visit (DEC, 2007), no declared rare or priority flora were found. It was also ascertained that it is possible that DRF *Apium prostratum phillipii* or *Villarsia marchantii* might occur within the wooded gully to the west of the proposed clearing area, but not in the soil type found in the application area.

A majority of the DRF and priority species that occur in the locality (within 10km of the proposed clearing area) are within the secure Porongurup National Park. *Villarsia calthifolia* and *Hibbertia porongurupensis* are declared rare and were sighted 1km south of the proposed clearing area. They are mostly found in sheltered positions amongst granite boulders (Florabase, 2007). From photographs (DEC, 2007) it would appear that there are no sheltered areas or granite boulders within the proposed clearing area.

Given the above, it is not likely that the proposed vegetation to be cleared is necessary for the continued existence of rare flora.

**Methodology** GIS Layers:  
- Albany - Mt Barker Orthomosaic  
- Flora  
Florabase (2007)  
DEC Site visit (2007)

**(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 threatened ecological communities within a 10km radius of the proposed clearing site. Four priority listed communities are clustered together 7kms north-east of the application area. They are wet ironstone heath communities (Albany district).

Given the proximity of the priority listed communities from the area proposed to be cleared it is highly unlikely that the proposed clearing of native vegetation comprises of, is necessary for the maintenance of threatened ecological communities.

**Methodology** GIS Layers:  
- Albany - Mt Barker Orthomosaic  
- Sac biodatasets

**(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	<b>Proposal is not likely to be at variance to this Principle</b>					
Pre-European	Current extent	Remaining	Conservation**	(ha)	(ha)	(%)
	status					
IBRA Bioregions****						
Warren <sup>^</sup>	834053.95	657114.14	78.8	Least Concern	N/A	
Shire*						
Plantagenet	485073	231912	47.8	Depleted	N/A	
Beard Vegetation Complex****						
3	2661515.0	1863982.7	70.1	Least Concern		

\* (Shepherd et al. 2001)

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

\*\*\* (Mattiske Consulting 1998)

\*\*\*\* (Shepherd et al. 2006)

<sup>^</sup> Area within Intensive Land Use Zone

The proposed clearing area is within the Warren IBRA Region, where the area of vegetation remaining is 61.6%. Within the Shire of Plantagenet 47.8% of pre-European vegetation remains (Shepherd 2001). These percentages are higher than 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). The beard vegetation complex that the proposed area falls within is classified as least concern.

The application area also lies within the agricultural zone of EPA position statement No. 2. The EPA does not support the further reduction in native vegetation through clearing for agriculture and support active management by landholders to maintain environmental values of remaining vegetation.

As the application is within an agricultural zone, clearing is at variance to this principle, though given the condition of the vegetation under application it is unlikely the proposed clearing represents a significant remnant of vegetation,

**Methodology** Shepherd et al. 2001  
 Department of Natural Resources and Environment 2002  
 Mattiske Consulting 1998  
 Shepherd et al. 2005  
 GIS Layers:  
 - Pre-European Vegetation - DA 01/01  
 - Interim Biogeographic Regionalisation of Australia (subregions) - EA 18/10/00  
 - Local Government Authorities - DLI

**(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 within a 10km radius of the proposed clearing area. There is however, a minor non-perennial gully approximately 50m west of the application area. A site inspection (DEC, 2007) established that the vegetation type in the area proposed for clearing is different to that occurring in the gully.

Given that the proposed clearing area contains differing vegetation than that of the nearby watercourse, it is unlikely that the application area is growing in, or in association with, an environment associated with a watercourse.

**Methodology** GIS Layers:  
 - Albany - Mt Barker Orthomosaic  
 DEC Site Visit (2007)

**(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**  
 The topography of the proposed clearing area is relatively flat with an elevation rising from 280-310 AHD, and has a mean annual rainfall of 700m. Groundwater salinity has been mapped between 3000-7000mg/L TDS (Total Dissolved Solids) giving it a moderate rating. Acid Sulfate Soils (ASS) risks have not been mapped in the

proposed clearing area. The area in which the application is situated consists of:  
LK21 - Ranges of granites and granodiorites and shallow loamy soils, over three quarters of the application area; and  
Cb42 - Undulating plains and outwash fans from the granite hills of units, along the northern quarter of the proposed clearing application.

There was no evidence of erosion, dry land salinity or water logging from the site inspection (DEC, 2007). DAFWA Advice (2007) suggests that although clearing in the catchment is likely to contribute to recharge, given the application is a small area full of regrowth which is sparse in cover and surrounded by healthy native vegetation, it is unlikely to have a measurable impact on salinity in the catchment.

Additionally, further DAFWA advice (2007) suggests that clearing would likely contribute to water logging on and off the proposed clearing area. Removal of deep rooted perennial vegetation is likely to increase recharge to subsurface and groundwater increasing surface water and groundwater flows. However, as the clearing area is small and buffered by surrounding vegetation, it is therefore unlikely to have measurable impact on salinity in the catchment.

Given the above information, the proposed clearing is unlikely to cause appreciated land degradation in the form of wind or water erosion, water logging or salinisation.

**Methodology** GIS Layers:  
- Albany - Mt Barker Ortho  
- Groundwater Salinity, Statewide - DOW  
DAFWA Advice (2007)  
Site Inspection (2007)

**(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**  
Surrounding the southern side of the proposed clearing application is Porongurup National Park, 280m southeast and 290m southwest.

Given the sparse cover and condition of the vegetation to be cleared it is unlikely that the clearing is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

**Methodology** GIS Layers:  
- Albany - Mt Barker Orthomosaic  
- Register of National Estates

**(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**  
The purpose of clearing is for viticulture. Given the proximity to surface water (50m) and the topography of the application area (280-310m AHD) with a low to medium relief towards the gully, increased nutrient loads due to future landuse may influence the functioning of these watercourses. Though, there is a buffer of native vegetation evident on both banks of the gully, which filter and limit nutrients entering the watercourse.

Groundwater salinity is between 3000-7000mg/L which is within the high brackish to low saline range.

As the proposed clearing area consists of sparse cover and vegetation in a degraded condition, clearing of native vegetation within the area is unlikely to have a detrimental effect on water regimes within surface or underground water.

**Methodology** GIS Layers:  
- Albany - Mt Barker Ortho  
- Groundwater Salinity, Statewide - DOW  
- Topography contours, statewide - DOLA 12/09/02  
- Rainfall, Mean Annual - BOM 30/09/01

**(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 hydrogeology of the area is predominately granitoid - rocks of low permeability, which can assist in intensifying flooding if an abundance of vegetation is cleared. Given though, the sparse cover and condition of the vegetation to be cleared it is unlikely that the clearing will cause or exacerbate flooding within the local area.

**Methodology** GIS Layer:

- Albany - Mt Barker Orthomosaic
- Hydrogeology, statewide

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

### Comments

A current Environmental Impact Assessment is over the local area encompassing the application area. Status: s38a - Not assessed no advice given

### Methodology

GIS Layers:  
- Environmental Impact Assessments

## 4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Plantation	Mechanical Removal	3	The application is not likely to be at variance to any of the principles.

## 5. References

- DAFWA Advice. 2007. Department of Agriculture and Food Western Australia. 2007. Western Australia Government.
- 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.
- DEWR. 2007. Department of Environmental and Water Resources. 2007. Sited at <http://www.environment.gov.au/>
- Florabase. 2007. Department of Environmental and Conservation. 2007. site at <http://florabase.dec.wa.gov.au/>
- 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 Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.
- 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.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001a) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia (updated 2005).
- Site Inspection. 2007. Department of Environment and Conservation. 2007. Western Australian Government.

## 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)

