



## 1. Application details

### 1.1. Permit application details

Permit application No.: 409/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Cliff Green

### 1.3. Property details

Property: LOT 442 ON PLAN 231426  
LOT 505 ON PLAN 21199  
Local Government Area: Shire Of Gingin  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
8		Burning	Horticulture
	4	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
<p>Hedde vegetation complexes: Coonambidgee Complex - vegetation ranges from a low open forest and low woodland of <i>Eucalyptus todtiana</i>, <i>Banksia attenuata</i>, <i>B. menziesii</i>, <i>B. ilicifolia</i> with localised admixtures of <i>B. prionotes</i> to an open woodland of <i>E. calophylla</i> and <i>Banksia</i> species (Hedde et al 1980, Government of Western Australia 2000).</p> <p>Yanga complex - predominantly a closed scrub of <i>Melaleuca</i> species and low open forest of <i>Casuarina obesa</i> on the flats subject to inundation. On drier sites the vegetation reflects the adjacent vegetation complexes of Bassendean and Coonambidgee (Hedde et al 1980, Government of Western Australia 2000).</p> <p>Beard vegetation associations: 1014 - mosaic, low woodland, <i>Banksia</i> shrublands, tea-tree thicket (Shepherd et al 2001, Hopkins et al 2001).</p> <p>949 - low woodland, <i>banksia</i> (Shepherd et al 2001, Hopkins et al 2001).</p>	<p>The vegetation under application consists of two rectangular areas. The northern area is approximately 140m wide and 300m long. The southern section is approximately 100m wide and 350m long. The two areas are separated by an area approximately 140m wide and 350m long (not under application). The vegetation in these two areas consists of low, open <i>Banksia</i> woodland with Blackbutt. The vegetation was in good condition, with the northern area supporting a better understorey than the southern area which had bare patches and some weed invasion.</p> <p>There were a number of skeletal and dead trees scattered in both areas under application, particularly on the eastern edges as a result from a previous bushfire (approximately 18 months ago).</p> <p>In addition to these two areas, the proponent amended his application to include 4 large dead flooded gums (<i>Eucalyptus rudis</i>) located with the boundaries of a Conservation Category Wetland. These were also burnt in the bushfire and the proponent considers them to be a hazard as they are dropping limbs near an access track.</p>	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>Description of vegetation to be cleared from site visit conducted on 8th April 2005 and has been updated by a subsequent site visit on 18th May 2005. The overall condition of the vegetation has been described as 'good' as the northern area under application is in 'very good' condition while the southern area under application does have some disturbance.</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 areas under application consist of low open forest of blackbutt and other Banksia species, which are in good condition with patches that have been burnt from a recent bushfire and some weed invasion.

Given the degraded condition of areas of vegetation under application and the excellent condition of the vegetation on the neighbouring property to the east, it is unlikely that the area under application is of higher biodiversity value than the surrounding area.

**Methodology** CALM (2005) (DoE Trim No. EI987)  
Site visit (8th April 2005, 18 May 2005)

#### (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 following Specially Protected species are known to occur within a 10km radius of the area under application:

Chuditch (*Dasyurus geoffroii*); and  
Western Ringtail Possum (*Pseudocheirus occidentalis*) (CALM 2005).

The following Priority listed fauna are also known to occur within a 10km radius of the area under application:  
Western Brush Wallaby (*Macropus irma*, Priority 4);  
Hooded Plover (*Charadrius rubricollis*, Priority 4); and  
Quenda (*Isoodon obesulus fusciventer*, Priority 5) (CALM 2005).

The proposed clearing has the potential to impede the movement of fauna and reduce feeding and breeding opportunities (CALM 2005).

In between the two areas under application a strip of vegetation approximately 140m wide and 350m long will be retained and is connected to other remaining areas of native vegetation. This strip of vegetation could facilitate fauna movement.

**Methodology** CALM (2005) (DoE Trim No. EI987)  
Site visit (8th April 2005, 18 May 2005)

#### (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**

The following Declared Rare Flora (DRF) species occurs within 10km of the area under application:

*Eleocharis keigheryi* (CALM 2005).

However it is unlikely that this species would be present as it occurs on a dissimilar vegetation and soil type as the DRF species (CALM 2005).

The following Priority species occur within 10km of the area under application:

*Isotropis cuneifolia* subsp. *glabra* (Priority 2)

*Dillwynia dillwynioides* (Priority 3);

*Blennospora dolliformis* (Priority 3);

*Caladenia speciosa* (Priority 4);

*Verticordia lindleyi* subsp. *lindleyi* (Priority 4); and

*Schoenus natans* (Priority 4) (CALM 2005).

As the Banksia woodland located within the area under application is in degraded condition, it is unlikely that Priority species would have persisted..

**Methodology** CALM (2005) (DoE Trim No. EI987)  
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 significant ecological community.

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

The following Threatened Ecological Communities (TECs) occur within 10km of the area under application:  
SCP07 - Herb rich saline shrublands in clay pans - Category of threat: Vulnerable (CALM 2005).

The area under application supports the same vegetation complex. However the site position mid-slope on deep well-drained sand is unlikely to support the vegetation associated with this TEC as this community is

associated with low-lying seasonally inundated flats. (CALM 2005).

**Methodology** CALM (2005) (DoE Trim No. EI987)  
GIS Databases:  
- Threatened Ecological Communities - CALM 15/07/03

**(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 likely to be at variance to this Principle**

The vegetation of the area under application consists of two Heddl vegetation complexes, the Coonambidgee Complex of which there is 45.1% (2,830ha) vegetation remaining and the Yanga of which there is 18.7% (4,884ha) of remaining (Heddl et al 1980). It also consists of the following Beard vegetation associations, 1014 of which there is 53.5% remaining and 949, which has 82.6% remaining (Shepherd et al 2001, Hopkins et al 2001). The State Government is committed to the National Objectives Targets for Biodiversity Conservation which includes a target that prevents a clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment 2002, EPA 2000). As such, the Heddl vegetation complex Yanga is below this 30% minimum. However, during the site inspection it was noted that the areas under application consisted of Banksia woodland with no evidence of paperbarks or she-oaks typical of Yanga vegetation. Therefore the 4 dead flooded gums would be only the vegetation consistent with the Yanga complex description that would be cleared.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation Status**	% in reserves/CALM-managed land
IBRA Bioregion –					
Swan Coastal Plain	1,529,235	626,512	41.8	Depleted	
Shire - Gingin	315,560	177,688	56.3	Least concern	
Heddl vegetation complexes					
Coonambidgee	6,272	2,830	45.1	Depleted	
Yanga	26,177	4,884	18.7	Vulnerable	
Beard vegetation associations					
1014	48,359	25,871	53.5	Least concern	39.7
949	116,545	96,277	82.6	Least concern	22.3

\* Shepherd et al. (2001)

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

**Methodology** Heddl et al (1980)  
Shepherd et al (2001)  
Hopkins et al (2001)  
Department of Natural Resources and Environment (2002)  
EPA (2000)

**(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 may be at variance to this Principle**

The four trees that are also under application are within the Conservation Category Wetland (CCW) of Gingin Brook. These trees however are located on the flat on top of the slope leading down to the Brook. The trees are isolated from other stands of vegetation and are on the edge of the 50m buffer required around CCWs.

A buffer consisting of multiple rows of intentionally planted trees exists between the Wetland and the other areas under application. The proponent is planning to fence off the Brook and additional revegetation along the Brook has been agreed to by the proponent.

**Methodology** Site plan supplied with submission from Shire of Gingin (DoE Trim No. EI501)  
Site visit (18/05/05)  
GIS Databases:  
- Geomorphic (Mgmt Categories) Wetlands, SCP - DOE 15/09/04  
- EPP, Lakes - DEP 28/07/03

**(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 areas under application have a Class 2 Acid Sulphate Soil risk (low risk). DAWA (2005) has identified potential for land degradation in the forms of eutrophication, waterlogging and wind erosion. The report also indicated that the proponent has a number of management strategies in place to reduce the effect of these issues including the planting of trees to strip excess nutrients and to act as buffers (DAWA 2005). Additional

revegetation along the Gingin Brook has been agreed to by the proponent. Therefore it was considered that the proposed clearing is not likely to cause appreciable land degradation (DAWA 2005).

**Methodology** DAWA (2005) (DoE Trim No. CEO244/05)  
GIS Databases:  
- Acid Sulphate Soil risk map, SCP - DOE 01/02/04

**(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 is one conservation reserve within 6km of the areas under application, Yeal Nature Reserve. It is unlikely that the proposed clearing will have a significant impact on this conservation area (CALM 2005).

**Methodology** CALM (2005) (DoE Trim No. EI987)  
GIS Databases:  
- CALM Managed Lands and Waters - CALM 01/08/04

**(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 not likely to be at variance to this Principle**  
The areas under application are not situated within a Public Drinking Water Source Area. DAWA (2005) has identified the potential for eutrophication; the nearest water body that could be affected by this would be the dam located at the southern end of the property. DAWA (2005) also indicated that the issue of eutrophication could be managed through appropriate management techniques, which the proponent has in place. As such, it is considered that the proposed clearing is unlikely to have a significant impact on groundwater and surface water quality.

**Methodology** DAWA (2005) (DoE Trim No. CEO244/05)  
GIS Databases:  
- Public Drinking Water Source Areas (PDWSAs) - DOE 04/11/04

**(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**  
The DAWA (2005) report identified the potential for waterlogging as a result of the proposed clearing. It was considered that the mid-slope position and well-draining soils of the area under application will reduce this risk. Therefore the proposed clearing is unlikely to have a significant impact on peak flood height or duration.

**Methodology** DAWA (2005) (DoE Trim No. CEO241/05)

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

**Comments**  
Submission received from the Shire of Gingin outlining support for the proposed clearing for Lot 505 Hoy Rd as it is subject to Planning Consent for Irrigated Horticulture. The clearing proposed for Lot 442 Hoy Rd is not supported as the Planning Consent does not extend over the area of proposed clearing in this Lot.

Proponent has applied for an amendment to a water licence for an additional 4ha for horticulture on Lot 442. A revised Nutrient Irrigation Management Plan (NIMP) has been submitted and water entitlement is subject to approval of the NIMP (pers comms, Carolyn Hills, SGA DOE, May 2005).

The proponent is planning to fence off the Gingin Brook and has agreed to revegetate areas along the Brook. The proponent has already planted over 4000 plants on the property and is in the process of planting an additional 2000. Some planting was required as a condition for obtaining Planning Consent for Irrigated Horticulture for areas of development already on the property.

**Methodology** Submission from Shire of Gingin (DoE Trim No. EI501)

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Horticulture	Burning	8	Grant	The assessable criteria have been addressed and the clearing as proposed may be at variance with Principle b and f.  For Principle b, a number of Specially Protected and Priority fauna as well as other fauna, may use the areas under application for a movement corridor, breeding and feeding (CALM 2005). The proponent intends to retain a section of bush that is 140m

wide and 300m long to act as a buffer for his agricultural activities. This remaining vegetation may facilitate the movement of fauna to enable them to access other areas.

For Principle f, the four large dead trees that were subsequently added to the clearing permit application are located within a Conservation Category Wetland. Additionally, these trees were burnt by a recent bushfire and are considered a safety hazard as they tend to drop large limbs. As such, it is considered that there would be no significant impact to the wetland if the four trees were to be removed due to their position on top of the slope towards the wetland.

The proponent has agreed to revegetate the CCW and is also planning to fence off the CCW. Therefore, the assessing officer recommends that this permit should be granted on the basis of the following condition:

1. The permit holder shall revegetate the area cross hatched red (on attached Plan 409/1). The revegetation shall be established and maintained to an average planting density of 500 plants per hectare. The species shall consist of overstorey, midstorey and understorey species that are native to the area. Seed shall be sourced from within a 10km radius of the property.

Horticulture Mechanical  
Removal

4 **Grant**

See above

## 5. References

- CALM (2005) Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref EI987.
- DAWA (2005) Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref CEO241/05.
- 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 (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.
- 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.