



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4804/1
File Number: 2011/006846-1
Duration of Permit: From 12 October 2012 to 12 October 2014

PERMIT HOLDER

Shire of Gingin

LAND ON WHICH CLEARING IS TO BE DONE

Lot 61 on Deposited Plan 249300, GINGIN
Lot 60 on Deposited Plan 249300, GINGIN

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 1.6 hectares of native vegetation within the area hatched yellow on attached Plan 4804/1.

CONDITIONS

1. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

2. Dieback and weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) shall only move soils in *dry conditions*;
- (c) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (d) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

DEFINITIONS

The following meanings are given to terms used in this Permit:

dieback means the effect of *Phytophthora* species on native vegetation;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

fill means material used to increase the ground level, or fill a hollow;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

Roxane Shadbolt

Roxane Shadbolt
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

20 September 2012

Plan 4804/1



LEGEND

- ✓ Road Centrelines
- ▭ Cadastre for labelling
- ▭ Freehold
- ▭ Crown Reserve
- ▭ State Forest / Timber Reserve
- ▭ Marine Park (cont)

- ▭ Crown Lease
- ▭ Lease / Reserve
- ▭ Lease on State Forest / Timber Reserve
- ▭ Public Roads
- ▭ Unallocated Crown Land
- ▭ Water

Clearing Instruments

- ▭ Areas Applied to Clear
 - ▭ Areas Subject to Conditions
 - ▭ Areas Approved to Clear
- Perth Metropolitan North
15cm Orthomosaic - Landgate
2011



Scale 1:1642

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

R. Shadbolt Date 19/9/12

R. Shadbolt

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 4804/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Gingin

1.3. Property details

Property: LOT 60 ON PLAN 249300 (House No. 15 ROBINSON GINGIN 6503)
LOT 61 ON PLAN 249300 (House No. 19 ROBINSON GINGIN 6503)

Local Government Area: Shire of Gingin

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.6		Mechanical Removal	Building or Structure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 20 September 2012

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>Mapped Beard vegetation association 999 is described as Medium woodland; marri</p> <p>Hedde vegetation complex gingin complex is described as Open woodland of <i>Corymbia calophylla</i> (Marri) with second storey of <i>Banksia grandis</i> (Bull Banksia) and <i>Nuytsia floribunda</i>. Fringing woodland of <i>Eucalyptus rudis</i> (Flooded Gum) - <i>Melaleuca raphiophylla</i> (Swamp Paperbark) along streams</p> <p>(Shepherd et al 2001, Hedde et al 1980).</p>	<p>The proposed clearing of 1.6 hectares is for the purpose of the construction of an Aged Care facility.</p> <p>The area under application consists of <i>Corymbia calophylla</i> (Marri) open woodland over <i>Daviesia</i> sp, <i>Gastrolobium</i> sp, <i>Xanthorrhoea preissii</i>, <i>Xanthorrhoea brunonis</i> and grassy weeds. The northern central area also consists of <i>Banksia sessilis</i> occurring within the understorey (DEC 2012). It is considered for the area under application to predominately occur in a good (Keighery 1994) condition with areas within the west and south central portions occurring in a degraded to completely degraded (Keighery 1994) condition (DEC 2012). The application area has been previously cleared.</p>	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p> <p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)</p> <p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)</p>	<p>The condition of the vegetation was established through a site inspection undertaken by Department of Environment and Conservation officers on the 7 February 2012 (DEC 2012).</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 may be at variance to this Principle**

The applicant has amended the application area from 2 hectares down to 1.6 hectares in response to identified environmental impacts outlined in DEC's letter dated 23 February 2012. The applicant also advised that the proposed aged care facility will be designed to protect as much of the woodland area as possible (Shire of Gingin 2012).

The area under application consists of *Corymbia calophylla* (Marri) open woodland over *Daviesia* sp, *Gastrolobium* sp, *Xanthorrhoea preissii*, *Xanthorrhoea brunonis* and grassy weeds. The northern central area also consists of *Banksia sessilis* occurring within the understorey (DEC 2012). It is considered for the area under application to predominately occur in a degraded (Keighery 1994) condition with areas within the south central portions occurring in a completely degraded (Keighery 1994) condition (DEC 2012). The northern

central portion of the application that contains *Banksia sessilis* is considered to occur in a good (Keighery 1994) condition. The application area has been previously cleared, consisting of young Marri woodland.

It is considered for the application area to consist of foraging habitat for the conservation significant Carnaby's Cockatoo (*Calyptorhynchus latirostris*) (EPBC Act, Endangered). However, the clearing area is isolated and is likely to be used opportunistically by birds flying through between more significant feeding sites (DEC 2012a).

The vegetation within the area under application is identified as a component of Beard vegetation type 999, and Heddle Gingin Complex of which there is 9.5%, and 13% of Pre-European extent remaining respectively (Shepherd et al 2001, Heddle et al 1980). The good (Keighery 1994) condition portion of the vegetation under application is considered to be representative of these highly cleared vegetation communities. The proposed clearing of this small area is not considered likely to significantly impact these vegetation complexes.

Therefore the proposed clearing may be considered to contain a high level of biodiversity and may be at variance to this Principle. Avoid and minimise measures will help to reduce the impact of the proposed clearing.

Methodology Reference
-DEC (2012)
-DEC (2012a)
- Heddle et al (1980)
-Keighery (1994)
-Shepherd et al (2001)
GIS Databases
-Sac bio Datasets (31/1/2012)

(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

There are 11 fauna species of conservation significance recorded within the local area (10km radius). Given the predominately degraded (Keighery, 1994) condition of the vegetation and the relatively small size of the proposed clearing, it is not considered to provide significant habitat for the majority of these species.

However, the area under application is in the known distribution range of the Carnaby's Cockatoo and consists of Marri Woodland (DEC 2012). Carnaby's Cockatoo's are known to feed on a large variety of plants including Proteaceous species (*Banksia*, *Hakea* and *Grevillea*), marri nuts (*Corymbia calophylla*), jarrah (*Eucalyptus marginata*), tuart (*Eucalyptus gomphocephala*), *Casuarina* species and a range of introduced species (Shah, 2006). This species is listed as a Schedule 1 species under the Wildlife Conservation (Specially Protected Fauna) Notice 2010 being fauna that is rare or is likely to become extinct. This species was observed feeding within the application area (DEC 2012) and a known roost site for Carnaby's cockatoo occur 600 m from the application area.

Surveys of Carnaby's Cockatoo populations and their feeding and roosting habits show that the Northern Region (where the application area occurs) of the Swan Coastal Plain appears to be an important area throughout the season (Shah, 2006). Native species such as *Banksia* and *Eucalypts* play a significant role in the ecology of the Carnaby's Cockatoos on the Swan Coastal Plain (Shah, 2006).

The local area (10km radius) is highly cleared with approximately 35% vegetation remaining and therefore the application area is likely to be a food source for the Carnaby's Cockatoo.

However, the proposed clearing is not considered to contain significant feeding habitat for the Carnaby's cockatoo as the clearing area is isolated and it is likely that feeding activity is opportunistic by birds flying between more significant sites (DEC 2012).

Given the highly cleared local area and that the vegetation under application is likely to be utilised by the Carnaby's Cockatoo as feeding habitat, the proposed clearing maybe at variance to this Principle.

The applicant has advised that the proposed aged care facility will be designed to protect as much of the woodland area as possible (Shire of Gingin 2012).

Methodology References
-DEC (2012)
-Shah (2006)
-DEC (2009)
-DEC (2012a)
-Shire of Gingin (2012)
GIS Databases
-SAC Bio Datasets (31/1/2012)
-NatureMap -SAC Bio Datasets (31/1/2012)
-NatureMap

(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**
 Four rare flora species occur within the local area (10 km radius) of the application area including *Diuris drummondii*, *Eleocharis keigheryi*, *Ptychosema pusillum* and *Thelymitra dedmaniarum*. All of these species occur within different soil and Beard Vegetation Associations to the area under application.

Diuris drummondii is known to occur within low lying depressions in peat and sandy clay swamps, *Eleocharis keigheryi* occurs in winter wet clay pans, *Pultenaea pauciflora* occurs within white sands within wandoo, marri and parrot bush woodlands and *Thelymitra dedmaniarum* occurs on granite outcrops (Brown et al 1998, WA Herbarium 1998-). The application area does not contain suitable habitat for these species as it contains Marri woodland over red sands and does not contain wetland habitat, granite outcrops or white sands (DEC 2012).

Therefore the proposed clearing is not likely to be at variance to this Principle.

Methodology References
 -Brown et al (1998)
 - WA Herbarium (1998-)
 -DEC (2012)
 GIS Databases
 -SAC Bio datasets (31/1/2012)

(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**
 Two Threatened Ecological Communities (TEC) occurring within the local area, being SCP07 - Herb rich saline shrublands in clay pans and SCP15- Forests and Woodlands of deep seasonal wetlands, both of which are considered to be associated with wetland areas.

The area under application does not consist of wetland vegetation (DEC 2012) and therefore it is not considered to contain habitat for these TECs.

Therefore, the proposed clearing is not likely to be at variance to this principle.

Methodology References
 -DEC (2012)
 GIS Databases
 -SAC Bio Datasets (31/1/2012)

(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 may be at variance to this Principle**
 The vegetation within the areas under application are identified as a component of Beard vegetation type 999, and Hedde Gingin Complex of which there is 9.5%, and 13% of Pre-European extent remaining respectively (Government of Western Australia 2011).

A 30% threshold level is recommended in the National Objectives Targets for Biodiversity Conservation; below which species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000). The vegetation types under application retain less than this 30% threshold level. It is considered for the good (Keighery 1994) condition portion of the area under application to represent these highly cleared vegetation types.

The proposed clearing of this small area is not considered likely to significantly impact these vegetation complexes. However, given the extent of vegetation remaining in the local area (10 km radius) (approximately 35%), it may be considered likely that the good (Keighery 1994) condition portion of the vegetation under application is significant as a remnant in an area that has been extensively cleared.

Therefore, the proposed clearing may be at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion*				
Swan Coastal Plain	1,501,209	587,889	39.1	33.3
Shire of Gingin*	319,670	176644	55	42
Beard vegetation type 999*	102 939	9818	9.5	11.6

Heddle vegetation complexes**				
Gingin Complex	7113	921	13	3.76

* (Government of Western Australia 2011)

** (Shepherd 2009)

Methodology	References
	-Government of Western Australia (2011)
	-Shepherd (2009)
	-EPA (2000)
	-Keighery (1994)
	GIS databases
	- SAC Bio Datasets (31/1/2012)

(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 No watercourses or wetlands occur within the application area. Gingin Brook occurs 800 m south of the application area. Given the distance to the nearest watercourse it is not considered for the application area to be growing in association with a wetland or watercourse and is therefore not likely to be at variance to this Principle.
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Methodology	GIS Databases:
	- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
	- Hydrography, linear_1
	- Hydrography, linear (hierarchy)

(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 area under application has chief soils of red earthy sands (Northcote et al 1960-68). Sandy soils are at risk of wind erosion. However, given the relatively small area proposed to be cleared (1.6ha) it is not considered for the proposed clearing to cause appreciable land degradation in the form of wind erosion. Therefore, the proposed clearing is not likely to be at variance to this principle.
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Methodology	References:
	- Northcote et al (1960-68)
	GIS Databases:
	- Soils, Statewide

(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 The closest conservation area to the proposed clearing is Yeal and Boonanarring Nature Reserves occurring 9 km from the application area. Given the distance to the nearest conservation reserve it is not considered likely for the proposed clearing to impact upon their environmental values and therefore is not likely to be at variance to this Principle.
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Methodology	GIS Databases:
	- Bushforever
	- DEC Managed Lands
	- Gingin 50cm Orthomosaic - Landgate 2008

(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 No watercourses or wetlands occur within the application area. Gingin Brook occurs 800 m south of the application area. Given the distance to the nearest watercourse, it is not considered for the proposed clearing to cause deterioration in surface water quality through sedimentation or eutrophication.
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In addition, given the small area under application (1.6 ha) and medium to low salinity risk occurring within the area it is not considered for the proposed clearing to cause deterioration in groundwater quality through salinity.

Therefore the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Databases:
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrography, linear_1
- Hydrography, linear (hierarchy)

(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**
No watercourses or wetlands occur within the application area. Gingin Brook occurs 800 m south of the application area.

Given the small area under application (1.6 ha) and distance to nearest wetland and watercourses, it is not considered for the proposed clearing to cause an increase in flooding and therefore is not likely to be at variance to this principle.

Methodology GIS Databases:
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain
- Hydrography, linear_1
- Hydrography, linear (hierarchy)

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

Comments

The proposed clearing of 1.6 hectares is for the purpose of the construction of an Aged Care facility.

Letters were sent to the applicant dated 23 February 2012 and 14 June stating that there are likely to be environmental impacts and requested advice on opportunities to avoid and minimise the clearing and offset unavoidable impacts. The applicant responded on the 5 September 2012 reducing the clearing area from 2 hectares down to 1.6 hectares and advising that the aged care facility will be designed to protect as much of the woodland area as possible.

The area under application is zoned residential under the Shire of Gingin's Town Planning Scheme.

The Shire of Gingin holds a management order for the properties for the purpose of an Aged Persons Home.

A submission (2012) has been received stating that there is a need for aged care facility for Gingin's residents.

Methodology References
-Submission (2012)

4. References

Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.

DEC (2009) Fauna advice for CPS 3074/1 & CPS 2926; Species and Communities Branch, Department of Environment and Conservation. TRIM Ref DOC92367

DEC (2012) Site Inspection Report for Clearing Permit Application CPS 4804/1. Site inspection undertaken 7/2/2012. Department of Environment and Conservation, Western Australia (DEC Ref. DOCA476343)

DEC (2012a) Fauna advice regarding Clearing Permit Application CPS 4804/1. Department of Environment and Conservation, Western Australia (DEC ref A504556).

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, Western Australia.

Heddle, 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

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

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. Page 5

F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Shah, B. (2006) Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, 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.

Shire of Gingin (2012) Response to DEC's letter dated 14 June 2012. DEC ref A542860

Submission (2012) CPS 4804/1 - Shire of Gingin. Lot 60 and 61 Robinson Street, Gingin. DEC ref A493533

Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 14/2/2012).

5. 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)