



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3879/1
Permit Holder:	Paul William Barnsby
Duration of Permit:	9 October 2010 – 9 October 2018

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of cropping and *thinning*.

2. Land on which clearing is to be done

Lot 5 on Diagram 96347 (EASTBROOK 6260)

3. Area of Clearing

- The Permit holder must not clear more than 13 hectares of native vegetation for the purpose of cropping within the area cross-hatched yellow on attached Plan 3879/1a.
- The Permit holder must not clear more than 16 hectares of native vegetation for the purpose of *thinning* within the area cross-hatched yellow on attached Plan 3879/1b.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. Type of clearing authorised

To the extent authorised under condition 3(b) of this Permit, the Permit Holder may undertake the following activities within the area cross-hatched yellow on Plan 3879/1b:

- The Permit Holder may undertake the following activities:
 - clearing and burning of *understorey*;
 - thinning* of Karri (*Eucalyptus diversicolor*) trees;
 - culling* and burning of unsaleable trees.
- The Permit Holder shall not clear any native vegetation after 9 October 2014.

6. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

7. 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.

8. Watercourse management

The Permit Holder shall not clear native vegetation within 30 metres of the *riparian vegetation* of any first order *watercourse* within the areas cross-hatched yellow on Plan 3879/1a and Plan 3879/1b.

9. Vegetation management

- (a) Prior to undertaking any clearing authorised under this Permit, an *environmental specialist* must determine the species composition, structure and density of the *understorey* of areas proposed to be *thinned*.
- (b) A minimum retention rate of 18m²/ha *basal area* is required within the area of clearing authorised under this Permit.
- (c) Prior to undertaking any clearing authorised under this Permit, the Permit Holder must exclude all *stock* from the areas subject to *thinning* activities.
- (d) Within two years of 9 October 2014, the Permit Holder must:
 - (i) determine the species composition, structure and density of the *understorey* of areas subject to *thinning*; and
 - (ii) where, in the opinion of an *environmental specialist*, there is evidence that *understorey* will not recover and develop towards its pre-clearing composition, structure and density determined under condition 9(d)(i), the Permit Holder must undertake *remedial action* at an *optimal time* within the next 12 months to ensure re-establishment of *understorey* prior to expiry of this Permit.

PART III - RECORD KEEPING AND REPORTING

10. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) the species composition, structure and density of the cleared area;
 - (ii) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
 - (iii) the date that the area was cleared; and
 - (iv) the size of the area cleared (in hectares).
- (b) In relation to vegetation management pursuant to condition 9 of this Permit:

- (i) prior to clearing native vegetation authorised under this Permit, the species composition, structure and density of *understorey*;
- (ii) monitoring undertaken to ensure that the specified minimum *basal area* is retained;
- (iii) photographs of the *understorey* taken at one year, two years and three years after completing clearing authorised under this Permit; and
- (iv) a detailed description of the nature and extent of any *remedial actions* undertaken.

11. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 10 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 9 July 2018, the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 10(a) of this Permit.

DEFINITIONS

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

basal area is the method of expression of tree cover density in an area where the total area of tree trunk, measured at average adult human breast height, is expressed as square metres per hectares of land area;

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

local provenance means native vegetation seeds and propagating material from natural sources within 10 kilometres of the area cleared.

optimal time means the period from April to June for undertaking *direct seeding*, and the period from May to June for undertaking *planting*;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing *mulch*;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

remedial action/s means for the purpose of this Permit, any activity that is required to ensure successful re-establishment of *understorey* to its pre-clearing composition, structure and density, and may include a combination of soil treatments and *revegetation*.;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

riparian vegetation has the meaning given to it in Regulation 3 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004;

stock means the horses, cattle, sheep, pigs and other non-indigenous grazing animals kept or bred on a property;

thinned/ing describes a silvicultural activity to promote the growth of selected trees by removing competing trees;

understorey means, for the purpose of this Permit, all native vegetation that does not include trees to be *culled* or subject to harvest;

watercourse has the meaning given to it in section 3 of the *Rights in Water and Irrigation Act 1914*.

A handwritten signature in black ink, appearing to read 'K Faulkner', is written over a horizontal line.

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

9 September 2010

Plan 3879/1a



LEGEND

Clearing instruments_2

-  Areas Applied to Clear
-  Cadastre
-  Road Centrelines
-  Manjimup 50cm Orthomosaic - Landgate 2007



0 ~500 m

Scale 1:17591

(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.

 Date 9/9/10

K Faulkner
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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Plan 3879/1b



LEGEND

- Clearing Instruments_1
-  Areas Approved to Clear
 -  Cadastre
 -  Road Centrelines
 -  Manjimup 50cm Orthomosaic - Landgate 2007




0 500 m

Scale 1:17591
(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.

 Date 7/9/10

K Faulkner
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.



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1. Application details

1.1. Permit application details

Permit application No.: 3879/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Paul William Barnsby

1.3. Property details

Property: LOT 5 ON DIAGRAM 96347 (EASTBROOK 6260)
Local Government Area: Shire of Manjimup
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
13		Mechanical Removal	Cropping
16.2		Mechanical Removal	Timber Harvesting

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 Vegetation Association 1144: Tall forest; karri & marri (<i>Corymbia calophylla</i>).	The proposal is to clear 13 hectares of native vegetation in very good condition for cropping.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The vegetation condition was determined from DEC site inspection (DEC, 2008) and through the use of aerial photography Manjimup 50cm Orthothomosaic (DLI04).
Mattiske Vegetation Complex Wheatley: Tall open forest of <i>Eucalyptus diversicolor</i> - <i>Corymbia calophylla</i> on slopes and tall open forest of <i>Eucalyptus patens</i> on valley floor in perhumid and humid zones.	Most of the area proposed for cropping has been quite heavily logged in the past and has some weed encroachment that has come from adjacent paddocks.		
Mattiske Vegetation Complex Crowea: Tall open forest of <i>Corymbia calophylla</i> - <i>Eucalyptus diversicolor</i> on upper slopes with <i>Allocasuarina decussata</i> - <i>Banksia grandis</i> on upper slopes in hyperhumid and perhumid zones.			
As above	The proposed clearing also comprises of 16.2 hectares of native vegetation for the purpose of thinning.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	As above

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 proposal is to clear 13ha of native vegetation in very good (Keighery, 1994) condition for pasture, and the thinning of 16.2ha of native vegetation in excellent (Keighery, 1994) condition. The area is natural karri regrowth forest approximately 50 years old and has been logged in the last 20 years (DEC, 2008).

The vegetation under application is a component of associations and complexes which are well represented in the local (10km radius) area (Shepherd, 2009). The application area is 400m from Warren State Forest and 885m from Gloucester National Park.

Four species of priority listed flora occur within the local area. Two species occur within the same vegetation and soil types to that of the application area: *Thomasia brachystachys* (P1) and *Xanthoparmelia xanthomelanoides* (P2). The closest recorded occurrences of these species are 8km and 5.6km respectively. The other two species occur in differing vegetation associations.

Large areas of good condition vegetation exist in the local area which would also support these flora species.

The application area is therefore not considered to comprise a high level of biological diversity, and therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology References
- DEC site visit (2008)
- Keighery (1994)
- Shepherd (2009)

GIS database:
- DEC tenure
- SAC Biodatasets - accessed August 2010

(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**

There are four threatened fauna species in the local (10km radius) area : three mammal species (Brush-tailed Phascogale, Quokka and Western-Ringtailed Possum); one bird species (Forest Red-tailed Black Cockatoo); one fish species (Western Mud Minnow) and one mollusc. Three mammal and two fish species listed as priority fauna also occur within the local area. All of these fauna may utilise the vegetation under application.

DEC's site inspection (DEC, 2008) states, as the area is regrowth with no trees over 50 years old, there was no evidence of significant habitat trees within the application area.

Additionally, the site inspection confirmed the vegetation types are well represented within the IBRA bioregion, and locally, with large areas of conservation estate within the local area. The surrounding vegetation also provides more significant ecological linkages than the area under application.

The local area is well vegetated with approximately 75% native vegetation remaining.

As the area under application is not considered significant fauna habitat, the vegetation under application is not considered to be significant habitat for rare or priority fauna.

The clearing as proposed is not likely to be at variance to this principle.

Methodology References
- DEC site visit (2008)

GIS database:
- DEC tenure
- SAC Biodatasets (accessed August 2010)

(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**

A rare flora species, an orchid - *Caladenia christineae*, was recorded in 1956 2.5km south of the area under application. However this location is associated with a different vegetation type and occurs within the margins of winter-wet flats, swamps, and freshwater lakes.

Methodology GIS database
- SAC Bio Datasets accessed August 2010

(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 records of threatened ecological communities within the local (10km radius) area. The clearing as proposed is therefore not likely to be at variance to this principle.

Methodology GIS database
- SAC Bio datasets accessed August 2010

(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 application is in the Warren IBRA Bioregion and the Shire of Manjimup, within which 80.85% and 85.4% respectively of the pre-European extent of native vegetation remains. It is also a component of Beard Vegetation Association 1144, and Mattiske Vegetation Complexes Wheatley and Crowea, all of which are well represented, with 82.15%, 78% and 81.2% respectively remaining. Additionally, the local (10km radius) area contains approximately 75% native vegetation cover.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

The 29.2ha application area is therefore not considered to be a significant remnant of native vegetation in an area that has been extensively cleared. The clearing as proposed is therefore not likely to be at variance to this principle.

Methodology

References

- Commonwealth of Australia (2001)
- DEC site visit (2008)
- Shepherd (2009)

GIS Databases:

- SAC Biodatasets accessed August 2010

(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

A minor perennial watercourse occurs adjacent to the western and southern area proposed for thinning, whilst a similar watercourse is adjacent to the western area proposed for cropping.

No clearing is proposed on the western side of the area proposed for cropping, therefore the watercourse would not be impacted (DEC, 2008).

Department of Water (2008) recommend no clearing of riparian vegetation occurs and that such vegetation be protected by a 30m vegetation buffer.

The clearing as proposed is unlikely to be at variance to this principle.

Methodology

References:

- DEC (2008)
- DoW (2008)

GIS datasets

- Hydrography, linear

(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 application area is not mapped for salinity or acid sulphate soils risk; the groundwater salinity is mapped at 500-1000 mg/L. The chief soil types are hard ironstone gravels (Northcote et al, 1960-68) and as such the risk of soil erosion is likely to be minimal.

The relief across the area to be cleared for grazing and cropping is medium, and although the thinning area is steeper, the vegetation remaining after thinning should prevent significant water erosion from occurring.

The clearing as proposed is therefore not likely to cause appreciable land degradation and as such is not likely to be at variance to this principle.

Methodology

References

- Northcote et al (1960-68)

GIS datasets

- Hydrography, linear
- 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 application area is adjacent to a nature reserve, 400m southwest of Warren State Forest and 885m southwest of Gloucester National Park. The vegetation under application may be providing some ecological linkages between these conservation areas, however these linkages are unlikely to be significantly impinged as a result of the proposed clearing - more significant linkages exist south of the application area.

The application area slopes away from the adjacent nature reserve. Impacts to this area are likely to be insignificant and as such the proposed clearing is unlikely to be at variance to this principle.

Methodology GIS Databases:
- DEC tenure

(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 ground water salinity of the area is mapped as 500-100mg/L; there is no known risk of acid sulphate soils. The topographical contours suggest the application area drains into a dam. As the local area is well vegetated, and half of the application is for thinning only, the risk of deterioration in surface or groundwater is unlikely.

A minor perennial watercourse exists adjacent to the application area.

The application exists within Country Area Water Supply Act Zone D. Department of Water (2008) have advised that more than 10% of vegetation of the original holding would remain if clearing was to occur.

Clearing as proposed is unlikely to be at variance to this principle.

Methodology Reference
- DoW (2008)
GIS datasets
- DEC tenure
- SAC Bio datasets accessed August 2010

(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 topographical contours suggest the application area drains into a dam, and as such the clearing is not expected to cause flooding. The clearing as proposed is therefore not likely to be at variance to this principle.

Methodology GIS datasets
- Topographic Contours, Statewide

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

Comments

The property is zoned Rural under the Town Planning Scheme. Manjimup Shire requests that the proponent liaise with them concerning the use of heavy vehicles during the clearing activities.

The area under application exists within Country Area Water Supply Act Zone D. Department of Water (2008) advice states that the clearing proposed under this application would retain the required 10% native vegetation on the proponent's holding.

Vegetation management conditions have been added to the permit to restore the understorey disturbed by the silviculture operations, retain mature trees and a set basal area for habitat and exclude stock to ensure the remaining vegetation can continue to function due to the disturbance and will recover in the future. These conditions are consistent with DEC Sustainable Forest Management.

Methodology Reference
- DoW (2008)
GIS datasets:
- Country Area Water Supply Act (Part 11A) Clearing Control Catchments 29/06/2006
- Town Planning Scheme Zones - MFP 31/08/98

4. References

- DEC (2008) Site Inspection Report for Clearing Permit Application CPS 3879/1, Lot 5 on Diagram 96347, Eastbrook. Site inspection undertaken 1/12/2008. Department of Environment and Conservation, Western Australia (DEC Ref: 70070).
- DoW (2008) Advice for Clearing Permit Application CPS 2820/1, Lot 5 on Diagram 96347. Department of Water, Western Australia (DEC Ref: DOC71669).
- 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. 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.
- Shepherd, D.P. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

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)