



GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4225 / 1

File Number: 2011/000968-1

Duration of Permit: From 2 May 2011 to 2 May 2013

PERMIT HOLDER

Edward Arthur Eaton

Vicki Rae Eaton

Mark Ryan Eaton

LAND ON WHICH CLEARING IS TO BE DONE

LOT 77 ON PLAN 222501 (GLEDHOW 6330)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 1 hectare of native vegetation within the area shaded yellow on attached Plan 4225/1.

CONDITIONS

1. This permit does not authorise the Permit Holder to clear native vegetation within the area shaded red on attached Plan 4225/1 with the exception of a 2 metre wide stock crossing for the water course, shown on the attached Plan 4225/1.

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

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

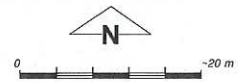
7 April 2011

Plan 4225/1



LEGEND

- | | | |
|-----------------------------|-------------------------|---|
| Clearing Instruments | | <input type="checkbox"/> Cadastre |
| Areas Subject to Conditions | Areas Approved to Clear | <input type="checkbox"/> Albany Townsite 20cm
Orthomosaic - Landgate
2007 |
| Road Centrelines | | |



Scale 1:803
(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

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

Our environment, our future
WA Crown Copyright 2002

* Project Data is denoted by asterisk. This data has not been quality assured. Please contact map author for details.



1. Application details

1.1. Permit application details

Permit application No.: 4225/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Edward Arthur, Vicki Rae and Mark Ryan Eaton

1.3. Property details

Property: LOT 77 ON PLAN 222501 (GLEDHOW 6330)

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1		Mechanical Removal	Grazing & Pasture

1.5. Decision on application

Decision on Permit Application:

Decision Date:

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: 3 - medium forest; Eucalyptus marginata (Jarrah) / Corymbia calophylla (Marri) and; 978 - low forest; jarrah, Eucalyptus staeri & Allocasuarina fraseriana	The proposed clearing of approximately 1 hectare is for the purpose of grazing cattle and horses within a 'lifestyle' block.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The vegetation description and condition was determined from aerial imagery and the Albany Regional Vegetation Study (Sandiford and Barrett 2010)
Albany Regional Vegetation Study: Homalospermum firnum and Callistemon glaucus peat thicket (Sandiford and Barrett, 2010)	The vegetation under application appears to have been cleared between 2001 and 2007 with strong regrowth evident in imagery from 2010. The Albany Regional Vegetation Study noted that Homalospermum firnum and Callistemon glaucus peat thicket is susceptible to weed invasion following disturbance (Sandiford and Barrett, 2010).		

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 under application is described as a modified Homalospermum firnum and Callistemon glaucus peat thicket (Sandiford and Barrett, 2010) system in good condition (Keighery, 1994) and is bisected by an unnamed, minor non-perennial water course. This vegetation unit is considered to vulnerable to weed invasion and aerial imagery indicates that the vegetation under application is regrowth vegetation that was previously cleared between 2001 and 2007.

Given the relatively small size of the proposed clearing (1 hectare) and that the vegetation under application is regrowth vegetation that has been recently cleared, it is not considered for the proposed clearing to be at variance to this Principle.

Methodology Keighery (1994)
Sandiford and Barrett (2010)
GIS Databases:

-Albany Townsite 20cm Orthomosaic - Landgate 2001
-Albany Townsite 20cm Orthomosaic - Landgate 2007
-Hydrography, linear
-Pre-European Vegetation
-SAC Bio Datasets (17/3/2011)

(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

The vegetation under application is described as a modified Homalospermum firmum and Callistemon glaucus peat thicket (Sandiford and Barrett, 2010) system in good condition (Keighery, 1994) and is bisected by an unnamed, minor non-perennial water course. This vegetation unit is considered to be vulnerable to weed invasion and aerial imagery indicates that the vegetation under application is regrowth vegetation that was previously cleared between 2001 and 2007.

Given the relatively small size of proposed clearing (1 hectare) and that the vegetation under application is regrowth vegetation that has been recently cleared, it is considered unlikely that the vegetation under application provides significant habitat for the fauna of conservation significance that have been recorded within the local area. Therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology References:
Keighery (1994)
Sandiford and Barrett (2010)
GIS Databases:
-Albany Townsite 20cm Orthomosaic - Landgate 2001
-Albany Townsite 20cm Orthomosaic - Landgate 2007
-Hydrography, linear
-Pre-European Vegetation
-SAC Bio Datasets (17/3/2011)

(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

The vegetation under application is described as a modified Homalospermum firmum and Callistemon glaucus peat thicket (Sandiford and Barrett, 2010) system in good condition (Keighery, 1994) that has been previously cleared between 2001 and 2007.

The rare flora species Banksia brownii and Drakea micrantha have been recorded on the same mapped soil and vegetation types as the area under application, neither of which are considered to occur within the Homalospermum firmum and Callistemon glaucus peat thicket (Sandiford and Barrett, 2010) system.

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

Methodology Keighery (1994)
Sandiford and Barrett (2010)
GIS Databases:
-Albany Townsite 20cm Orthomosaic - Landgate 2001
-Albany Townsite 20cm Orthomosaic - Landgate 2007
-Hydrography, linear
-Pre-European Vegetation
-SAC Bio Datasets (17/3/2011)
-Soils, Statewide DA 11/99

(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 three records of the Threatened Ecological Community (TEC) Banksia coccinea thicket within the local area (10km radius) of the proposed clearing. The closest being located 9.2 km north east of the area under application. Given the distance to these TECs and that Banksia coccinea is not associated with the vegetation complex described for the vegetation under application (Sandiford and Barrett, 2010) it is considered that the clearing as proposed is not likely to be at variance to this principle.

Methodology References:
Sandiford and Barrett (2010)
GIS Databases:
-Pre-European Vegetation

(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 proposal is to clear 1 hectare of regrowth Homalospermum firmum and Callistemon glaucus peat thicket (Sandiford and Barrett, 2010) system in good condition (Keighery, 1994) that has previously been cleared between 2001 and 2007.

The area under application is located in the Jarrah Forest Bioregion, within which 55.8% of the pre-European vegetation remains (Shepherd 2007). The proposal also falls within the City of Albany, of which there is 37.41% remaining of pre-European vegetation (Shepherd 2007).

The Beard Vegetation Associations of the area under application, associations 3 and 978, retain 69.35% and 38.9% of the remaining pre-European vegetation within the Jarrah Forest Bioregion (Hopkins et al., 2001, Heddle et al 1980). This is above the 30% threshold level recommended in the National Objectives Targets for Biodiversity Conservation, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Western Australia 2001).

The local area is significantly cleared, with approximately 25% native vegetation remaining in a 10km radius.

Given that the vegetation under application is regrowth vegetation that has previously been cleared and the remaining vegetation in the local and regional context the proposed clearing is not considered to be a significant remnant of native vegetation in an area that has been extensively cleared.

	Pre-European (ha)	Current extent (ha)	Remaining %
IBRA Bioregion			
Jarrah Forest*	4,506,657	2,514,550	55.80*
City of Albany*	431,375	161,375	37.41*
Local Area (~10km radius)	~31400	~7850	~25.00
Beard type in Bioregion*			
3	2,390,592	1,657,963	69.35
978	53,017	20,626	38.90

(Shepherd 2009)*

Methodology

References:
 Commonwealth of Australia (2001)
 Keighery, 1994
 Sandiford and Barrett (2010)
 Shepherd et al (2001)
 GIS Database:
 -Albany Townsite 20cm Orthomosaic - Landgate 2001
 -Albany Townsite 20cm Orthomosaic - Landgate 2007
 -Pre-European Vegetation - DA 10/01
 -NLWRA, Current Extent of Native Vegetation
 -Interim Biogeographic Regionalisation of Australia
 -Local Government Authorities - DLI 8/07/04

(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 at variance to this Principle

The vegetation under application is described as a modified Homalospermum firmum and Callistemon glaucus peat thicket (Sandiford and Barrett, 2010) system in good condition (Keighery, 1994) This vegetation unit is considered to vulnerable to weed invasion and aerial imagery indicates that the vegetation under application is regrowth vegetation that was previously cleared between 2001 and 2007.

An unnamed, non-perennial water course bisects the area under application in a north/south direction. This water course feeds into a network of drains and modified water courses into the Gledhow wetlands, an unclassified wetland system, approximately 1.8 kilometers downstream.

Given that the vegetation under application is growing in association with a water course the clearing as proposed is at variance to this principle.

Retention of a water course buffer will mitigate impacts to this water course.

Methodology References:
Keighery (1994)
Sandiford and Barrett (2010)
GIS Databases:
-Albany Townsite 20cm Orthomosaic - Landgate 2001
-Albany Townsite 20cm Orthomosaic - Landgate 2007
-Hydrography, Linear - DOE 1/2/04
-South Coast Significant Wetlands

(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 is mapped as soil type Cb41, the chief soils being leached sands, some of which have thin peaty surface horizons (Northcote et al, 1960-68).

The clearing of the vegetation under application, which includes riparian vegetation, will lead to soil erosion from bank instability and result in sedimentation of creek. However, given, the relatively small size of the proposed clearing there is considered to be a low risk of appreciable land degradation.

Methodology References:
Northcote et al (1960-68)
GIS Databases:
-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 at variance to this Principle

The closest conservation areas to the proposed clearing is Gledhow Nature Reserve and an adjacent Unnamed Conservation Park, located 500m and 700m respectively to the south east of the application area.

There are also a number of Land for Wildlife properties within local area (10km radius) of the application area, the closest being located ~30m east of, and separated from, the application area by Harrogate Road.

Given the size of the clearing (1 hectare) and that the vegetation under application does not lie within or adjacent to any significant conservation areas, the clearing as proposed is not at variance to this principle.

Methodology GIS Database:
-DEC Tenure
-Land for Wildlife

(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 vegetation under application is described as a modified Homalospermum firmum and Callistemon glaucus peat thicket (Sandiford and Barrett, 2010) system in good condition (Keighery, 1994) and is bisected by an unnamed, minor non-perennial water course. Aerial imagery indicates that the vegetation under application is regrowth vegetation that was previously cleared between 2001 and 2007.

The proposal is to clear 1 hectare of native vegetation for the purpose of grazing. It is considered that the clearing may cause some soil erosion of the of the banks of the water course, leading to some sedimentation of surface waters in the short term.

Given the above it is considered that the proposed clearing may be at variance to this Principle.

Retention of a water course buffer will mitigate impacts to this water course.

Methodology References:
Keighery (1994)
Sandiford and Barrett (2010)
GIS Database:

-Albany Townsite 20cm Orthomosaic - Landgate 2001
-Albany Townsite 20cm Orthomosaic - Landgate 2007
-Hydrography, Linear - DOE 1/2/04

(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 vegetation under application is described as a modified Homalospermum firmum and Callistemon glaucus peat thicket (Sandiford and Barrett, 2010) system in good condition (Keighery, 1994) and is bisected by an unnamed, minor non-perennial water course. Aerial imagery indicates that the vegetation under application is regrowth vegetation that was previously cleared between 2001 and 2007.

The proposal is to clear 1 hectare of native vegetation for the purpose of grazing. Given the size of the proposed clearing and that the vegetation under application has recently been cleared, it is considered unlikely that the proposed clearing will cause, or exacerbate, the incidence or intensity of flooding.

Methodology

References:

Keighery (1994)

Sandiford and Barrett (2010)

GIS Database:

-Albany Townsite 20cm Orthomosaic ? Landgate 2001

-Albany Townsite 20cm Orthomosaic ? Landgate 2007

-Hydrography, Linear - DOE 1/2/04

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

Comments

The proposal is to clear 1 hectare of native vegetation for the purpose of grazing cattle and horses within a 'lifestyle' block. Aerial imagery indicates that the vegetation under application is regrowth vegetation that was previously cleared between 2001 and 2007.

The area under application occurs within the EPA Position Statement No. 2 agriculture area and is for the purpose of grazing. Within the agricultural area the removal of biodiversity, significant clearing and alteration of catchment hydrology has already been too much and any further reduction in native vegetation through clearing for agriculture cannot be supported (EPA 2000).

In exceptional circumstances the EPA would consider supporting clearing for agriculture within this region if:

(a) There are alternative mechanisms for protecting biodiversity.

(b) The area to be cleared is relatively small, depending on the scale at which biodiversity changes over the area, including extent of vegetation in the surrounding area and recognising that values will vary for different ecosystems.

(c) The proponent demonstrates that the elements set out in Section 4.3 of Position Statement No 2 are being met. This will require extensive local and regional biodiversity work.

(d) Land degradation, including aquatic environments and threatening processes, such as dieback, salinisation or disruption of catchment processes, on-site and off-site would not be exacerbated.

In considering the above the assessment has determined the vegetation under application does not contain a high level of biodiversity and is a small area in comparison to the remaining vegetation in the landscape.

The City of Albany has recommended there be minimal impact to the riparian vegetation on the property (City of Albany (2011)). This has been addressed in the clearing principles.

Methodology

References:

-City of Albany (2011)

-EPA (2000)

GIS Databases

-Town Planning Scheme Zones

4. References

City of Albany (2011) Direct interest response for Clearing Permit Application CPS 4225/1, Lot 77 on Deposited Plan 222501, Gledhow. DEC Ref: A382537.

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

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.

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.

- Sandiford, E.M. and Barrett, S. (2010). Albany Regional Vegetation Study: Extent, Type and Status. A project funded by the Western Australian Planning Commission (EnviroPlanning -Integrating NRM into Land Use Planning- and State NRM Programs), South Coast Natural Resource Management Inc. and City of Albany for the Department of Environment and Conservation. Unpublished report. Department of Environment and Conservation, Western Australia.
- 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.
- 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).

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)