



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 3626/1
File Number: DEC13523
Duration of Permit: From 10 July 2010 to 10 July 2012

PERMIT HOLDER

Malcolm James Bateman
Angelica Bateman
Sonya Marie Bateman

LAND ON WHICH CLEARING IS TO BE DONE

Lot 1677 on Deposited Plan 202987 (Bow Bridge, 6333)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 2.44 hectares of native vegetation within the area shaded yellow on attached Plan 3626/1.

CONDITIONS

1. Clearing not authorised

This permit does not allow the Permit Holder to clear native vegetation within the area shaded red on attached Plan 3626/1 with the exception of a 2 metre wide stock access track to the creek, shown in light blue on the attached Plan 3626/1.

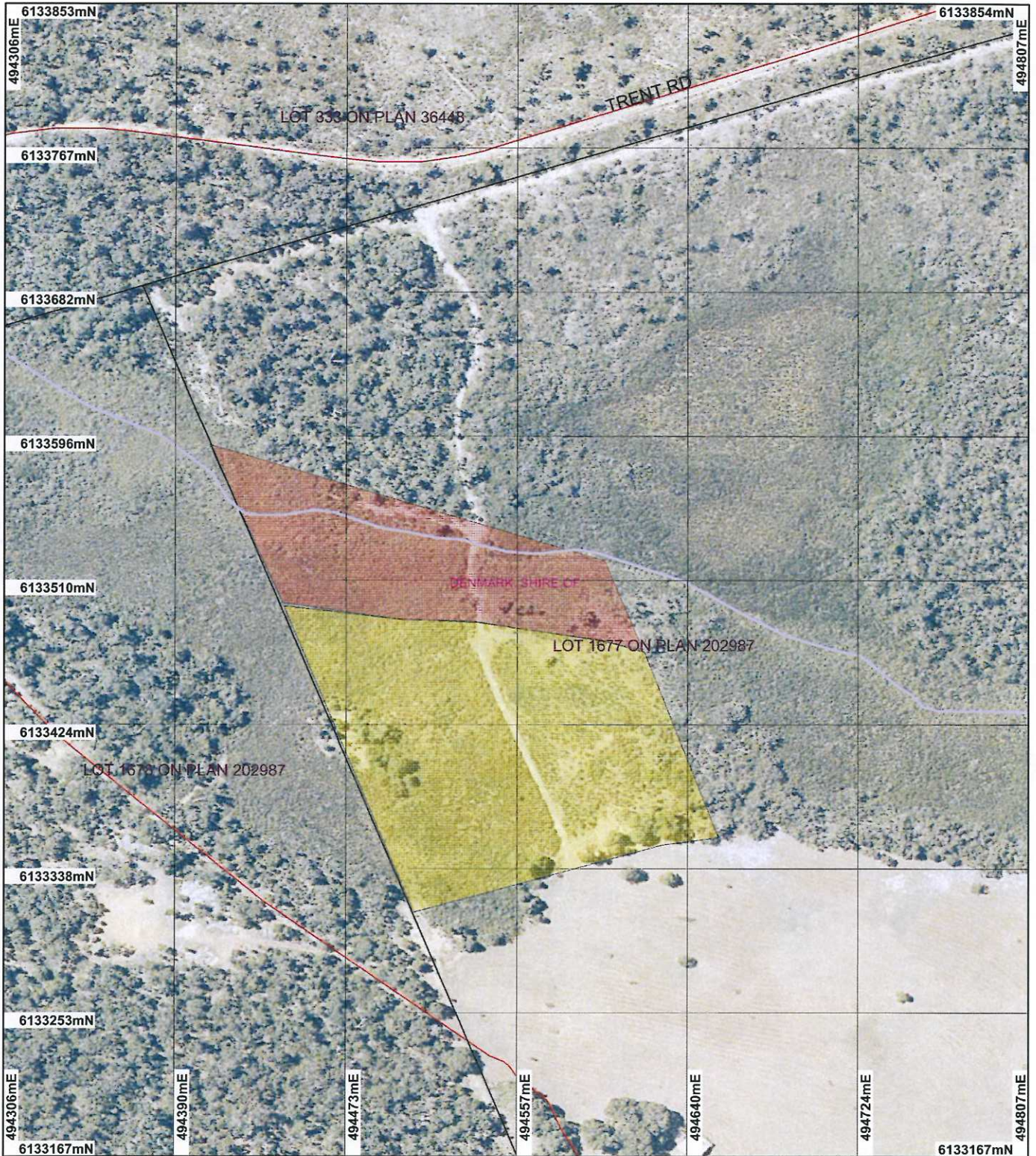
A handwritten signature in black ink, appearing to read "K Faulkner", written over a horizontal line.

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

10 June 2010

Plan 3626/1



LEGEND

- | | |
|------------------------------|--|
| Clearing Instruments | <input type="checkbox"/> Cadastre for labelling |
| Areas Subject to Conditions | <input type="checkbox"/> Deep River 50cm Orthomosaic - Landgate 2007 |
| Areas Approved to Clear | <input type="checkbox"/> Hydrography, linear |
| Road Centrelines | |
| Local Government Authorities | |



Scale 1:3000

(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.

K Faulkner Date 10/2/10

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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* 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.: 3626/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: **Malcolm James Bateman**

1.3. Property details

Property: LOT 1677 ON PLAN 202987 (BOW BRIDGE 6333)
Local Government Area:
Colloquial name:

1.4. Application

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

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; jarrah and marri (SAC Bio Datasets 20/4/2010; Shepherd, 2007)	The proposed clearing of 3.66 hectares within Lot 1677 (a 75 hectare property) is for the purpose of establishing a bull paddock. The vegetation is described as areas of low open heath, including some riparian vegetation, adjacent to the peat wetland. The vegetation structure is considered to be intact with the area of disturbance limited to an overgrown access track running through the area under application in a north-south direction (DEC, 2010).	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The condition of the vegetation was determined from the site inspection (DEC, 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 may be at variance to this Principle**
The proposal is to clear 3.66 hectares within Lot 1677 (a 75 hectare property) for the purpose of establishing a bull paddock.

The area under application comprises closed heath vegetation in excellent (Keighery, 1994) condition (DEC, 2010). A site inspection of the area under application observed an intact structure with disturbance limited to an overgrown access track (DEC, 2010). The dense vegetation provides suitable habitat for native fauna including fauna of conservation significance such as quokka and southern brown bandicoot. In addition, the area under application is located immediately adjacent to a peat swamp which provides critical habitat for the specially protected Sunset Frog (DEC, 2010).

Given the occurrence of intact vegetation in excellent condition and significant habitat for fauna including species of conservation significance, the vegetation under application may comprise a high level of biodiversity.

Methodology **References:**
- DEC (2010)
- Keighery (1994)
GIS Databases:
-SAC Bio Databases 16/03/2010

(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 at variance to this Principle

Two fauna species of conservation significance have been recorded within the local area (5 km radius), these being approximately 16 records of the Sunset Frog (*Spicospina flammocaerulea*, Specially Protected), the closest records are approximately 150 m north-east of the area under application and one record of the Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*), located 2.7 km south-east of area under application.

The area under application is located immediately adjacent to a peat swamp which provides critical habitat for the specially protected Sunset Frog with this habitat being essential to the long term persistence of this species (DEC, 2010). The proposed clearing does not allow for a buffer to the wetland and therefore may impact this critical habitat.

The area under application comprises closed heath vegetation in excellent (Keighery, 1994) condition and a section of a creek (tributary of Bow River) with intact riparian vegetation (DEC, 2010). This riparian vegetation performs an important role as an interface between terrestrial and aquatic ecosystems (WRC, 2000).

In addition, a site inspection of the vegetation under application observed an intact structure with disturbance limited to an overgrown access track. The dense vegetation provides suitable habitat for native fauna including fauna of conservation significance such as quokka and southern brown bandicoot, and may provide foraging habitat for the endangered Forest red-tailed black cockatoo. However, as the area under application is located approximately 200 m south of Mt Franklin South National Park (~4,300 ha area), the vegetation under application is not considered to comprise significant habitat for these species.

However, given the close proximity of the proposed clearing to critical habitat for the Sunset Frog the native vegetation under application is necessary for the maintenance of significant habitat for fauna. Therefore, the vegetation under application is at variance to this Principle.

To mitigate any impacts from the proposed clearing a 50 m buffer to the peat swamp and the creek will be imposed on this permit and allowance will be made for one water access point, no wider than 2 m, for stock.

Methodology

References:

- DEC (2010)
- Keighery (1994)
- WRC (2000)

GIS Database:

- SAC Bio Databases 16/03/2010

(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

There are three records of rare flora species, *Drakaea micrantha*, recorded in the local area (5 km radius) with the closest record being located approximately 2 km south-west of the area under application.

This species occurs on infertile grey sands in common sheoak and jarrah woodland or forest; it usually grows on old firebreaks and in disturbed sites where competition from other plants has been removed (Brown et al, 1998).

The area under application comprises closed heath vegetation (DEC, 2010) on leached sands, in close proximity to a peat swamp and comprising a section of a creek and associated riparian vegetation. It is considered that the area under application is not likely to comprise suitable habitat for rare flora.

Methodology

References:

- Brown et al (1998)
- DEC (2010)

GIS Databases:

- SAC Bio Databases 16/03/2010

(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

The nearest record of Threatened Ecological Community (TEC) is over 70 km from the area under application. The area under application comprises open jarrah woodland and closed heath vegetation in excellent (Keighery, 1994) condition (DEC, 2010).

Given the distance to the nearest TEC, it is considered the proposed clearing is not likely to be at variance to the Principle.

Methodology References:
 - DEC (2010)
 - Keighery (1994)
 GIS Databases:
 -SAC Bio Databases 16/03/2010

(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 vegetation under application is associated with Beard vegetation type 3, of which there is 81% of pre-European extent remaining in the bioregion (Shepherd 2007). In addition, the area under application is located within the Shire of Denmark, which has 78% of pre-1750 vegetation extent remaining.

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 vegetation type within the area under application retains more than the 30% threshold level.

In addition, the area under application is not a significant remnant in the local area due to its connectivity to other bushland to the north. Therefore, the proposed clearing is not likely to be at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In reserves (%)
IBRA Bioregions*: Warren (W)	835,925	675,836	80.8	
Shire of Denmark*	192,821	150,441	78.0	
Beard Vegetation Types* 3 (W)	252,196	204,295	81.0	84.9

* (Shepherd 2007)

Methodology References:
 -Commonwealth of Australia (2001)
 -Shepherd (2007)
 GIS Database:
 - SAC Bio Databases (09/02/2010)

(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 at variance to this Principle

A minor perennial watercourse (creek) runs across the northern section of the area under application (north-west to south-east direction). This watercourse is a tributary of Bow River, a major watercourse. In addition, a peat wetland occurs immediately adjacent to the area under application (DEC, 2010). A site inspection of the area under application observed riparian vegetation within the area under application (DEC, 2010).

Given the area under application comprises a section of a creek with associated riparian vegetation the proposed clearing is at variance to this Principle.

To mitigate any impacts from the proposed clearing a 50 m buffer to the peat swamp and the creek will be imposed on this permit and allowance will be made for one water access point, no wider than 2 m, for stock.

Methodology Reference:
 -DEC (2010)
 GIS Databases:
 -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 area under application is mapped as soil type Cb42, 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 Reference:
-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 likely to be at variance to this Principle**
The area under application is located approximately 200 m south of Mt Franklin South National Park with Lot 1677 being located immediately adjacent to the National Park.

The proposed clearing may lead indirect impacts including the spread of dieback affected soil and the spread of weeds. Given the relatively small size of the proposed clearing and the 200 m distance to the National Park, it is considered likely the proposed clearing will have a limited impact on the environmental values of the adjacent conservation area.

Methodology GIS Database:
-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**
A minor perennial watercourse (creek) runs across the northern section of the area under application (north-west to south-east direction). This watercourse is a tributary of Bow River, a major watercourse. In addition, a peat wetland occurs immediately adjacent to the area under application (DEC, 2010).

The area under application is not within a Priority Drinking Water Source Area (PDWSA) and has a low salinity risk. Therefore, it is unlikely for the proposed clearing to cause deterioration to the quality of underground water.

Given the area under application comprises a section of a creek and associated riparian vegetation, the proposed clearing may cause deterioration in surface water through water erosion and subsequent sedimentation of the creek.

To mitigate any impacts from the proposed clearing a 50 m buffer to the peat swamp and the creek will be imposed on this permit and allowance will be made for one water access point, no wider than 2 m, for stock.

Methodology Reference:
-DEC (2010)
GIS Databases:
-Hydrography, linear
-Priority Drinking Water Source Area (PDWSA)
-Salinity Risk

(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**
A minor perennial watercourse (creek) runs across the northern section of the area under application (north-west to south-east direction). This watercourse is a tributary of Bow River, a major watercourse. In addition, a peat wetland occurs immediately adjacent to the area under application (DEC, 2010).

Given the relatively small size of the proposed clearing there is not likely to be any increase in the occurrence or intensity of flooding.

Methodology Reference:
-DEC (2010)
GIS Database:
-Hydrography, linear

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

Comments

A submission (2010) regarding the proposal advised the vegetation is regrowth tea tree and has a defined water way flowing through it. It is suggested that the creek be buffered and fenced on both sides, a water point for livestock created and a crossing placed on the western boundary.

The Shire of Denmark (2010) advised the proposal involves riparian/wetland vegetation, which may perform as a continuous riparian corridor to the Bow River riparian zone. Planning consent from the Shire is required for any clearing of native vegetation over 0.5 ha.

The proposed clearing for the purpose of establishing a bull paddock, is adjacent to a creek and a swamp allowing for no buffer. Allowing unrestricted stock access to the creek and possibly the adjacent swamp can result in long term damaging effects, as livestock:

- graze and trample vegetation, preventing regeneration;
- compact the soils and create pathways;
- transport weed seeds in their fur and faeces; and
- contribute nutrient and bacteria directly to the stream through their urine and faeces (WRC, 2000a).

It is recommended that a 50 m buffer be provided to the peat swamp and creek to protect their ecological functions; a formal stock access point be established, preferably where the creek crosses the access track to minimise damage to the banks of the creek and introducing nutrients into the system; and the proposed paddock be fenced to exclude stock from the swamp and creek (DEC, 2010).

To mitigate any impacts from the proposed clearing a 50 m vegetated buffer to the peat swamp and the creek will be imposed on this permit. To allow stock access to fresh water a two metre wide stock access track to the creek will be permitted within this buffer.

Lot 1677 is freehold land, zoned rural under the local Town Planning Scheme.

Methodology

References:

- DEC (2010)
- Shire of Denmark (2010)
- Submission (2010)
- WRC (2000a)

GIS Databases:

- Cadastre
- Town Planning Scheme

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 (2010) DEC Regional Advice and Site Inspection Report for Clearing Permit Application CPS 3626/1, Lot 1677, Middle Road Bowbridge. Site inspection undertaken 8/04/2010. Department of Environment and Conservation, Western Australia. DEC Ref A297412 and A300517

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. (2007) 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.

Shire of Denmark (2010) Direct Interest Submission for Clearing Permit Application CPS 3626/1. Shire of Denmark. DEC Ref A297144

Submission (2010) Direct Interest Submission for Clearing Permit Application CPS 3626/1. DEC Ref DOC124550

WRC (2000) Waters and Rivers Commission Water Note WN12, The Values of the Riparian Zone, January 2000, Water and Rivers Commission.

WRC (2000a) Water Note WN10, Protecting Riparian Vegetation, January 2000, Water and Rivers Commission. Waters and Rivers Commission

5. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management (now DEC)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment (now DEC)
DoW	Department of Water
DMP	Department of Mines and Petroleum (ex DoIR)
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)