



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Number: 3135/2
File Number: 1163/06
Duration of Permit: From 25 July 2009 to 25 July 2011

PERMIT HOLDER

Shire of Busselton

LAND ON WHICH CLEARING IS TO BE DONE

LOT 350 ON PLAN 56267 (NATURALISTE 6281)

AUTHORISED ACTIVITY

Clearing of up to 0.09 hectares of native vegetation within the area hatched yellow on attached Plan 3135/2.

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 not move soils in wet 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.

3. Flora management

- (a) Prior to undertaking any clearing authorised under this Permit, the site shall be inspected by a *flora specialist* for the presence of the following rare and *priority flora*:
 - (i) *Caladenia viridescens*;
 - (ii) *Caladenia excelsa*;
 - (iii) *Caladenia longicauda* subsp. *clivicola*;

- (iv) *Acacia lateritica* glabrous variant (B.R. Maslin 6765); and
 - (v) *Caladenia arrecta*.
- (b) Where rare and *priority flora* are identified in relation to condition 3(a) of this Permit, the Permit Holder shall ensure that:
- (i) all records of rare flora are submitted to the CEO; and
 - (ii) no clearing occurs within 50 metres of identified rare flora, unless approved by the CEO and;
 - (iii) no clearing occurs with 10 metres of identified *priority flora*, unless approved by the CEO

4. 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 flora management pursuant to condition 3 of this Permit:
- (i) the location of each rare flora and *priority flora taxa* recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; and
 - (ii) the species name of each rare flora or *priority flora taxa* identified.

5. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 4 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 18 April 2011 the permit holder must provide to the CEO a written report of records required under condition 4 of this Permit where these records have not already been provided under condition 5(a) of this Permit.

Definitions

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

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

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

flora specialist means a person with specific training and/or experience in the ecology and taxonomy of Western Australian flora;

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;

priority flora taxa means those plant taxa that described as priority flora classes 1, 2, 3 or 4 in the Department's Declared Rare and Priority Flora List for Western Australia (as amended);

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*



Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

3 December 2009

Plan 3135/2



LEGEND

- Clearing Instruments
- Areas Approved to Clear
- Cadastre
- Busselton 50cm Orthomosaic - Landgate 2004



Scale 1:3175
(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.

[Signature] Date: 3/12/09
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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1. Application details

1.1. Permit application details

Permit application No.: 3135/2
 Permit type: Area Permit

1.2. Proponent details

Proponent's name: Meelup Regional Park Management Committee

1.3. Property details

Property: LOT 350 ON PLAN 56267 (NATURALISTE 6281)

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.09		Mechanical Removal	Hazard reduction or fire control

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
The application area consist of three vegetation types: Beard 3: medium forest; Eucalyptus marginata (Jarrah), Corymbia calophylla (Marri) (Shepherd et al. 2007). Mattiske vegetation complex WILYABRUP (Ww2): Tall open forest of Corymbia calophylla (Marri) - Agonis flexuosa (Peppermint) on flats and valleys in perhumid and humid ones (Mattiske, 1998). Mattiske vegetation complex COWARAMUP (C2) : Open forest of Eucalyptus marginata subsp. marginata (Jarrah) - Corymbia calophylla (Marri) - Banksia grandis (Bull Banksia) on lateritic uplands in perhumid and humid zones (Mattiske, 1998)	The proposed clearing of 0.09ha is a result of an amendment to CPS 3135/1 which will allow for an increased amount of clearing and a slight change to the applied area. The purpose of the clearing is to extend existing fire breaks. The proposed clearing is estimated to be 3 metres wide and 300 metres in length and will join up to already cleared fire breaks to the north. Only a small section of the applied area is comprised of Mattiske Ww2. The majority of the application area consists of Beard association 3 and Mattiske C2. The vegetation is considered to be in a very good (Keighery, 1994) condition.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The description and condition of the vegetation under application was determined via the use of aerial mapping systems.

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 vegetation under application is considered to be in a very good (Keighery, 1994) condition. The proposed clearing of 0.09ha is a result of an amendment to CPS 3135/1 which will allow for an increased amount of clearing and a slight change to the applied area. The purpose of the clearing is to extend existing fire breaks. The proposed clearing is estimated to be 3 metres wide and 300 metres in length and will join up to already

cleared fire breaks to the north.

The vegetation is composed of three vegetation types, Beard vegetation association 3, Mattiske complex Ww2 and Mattiske complex C2. Only a small section in the north of the applied area is comprised of Mattiske Ww2. The majority of the application area consists of Beard association 3 and Mattiske C2.

The application area is within the Leeuwin Naturalist Ridge and an "A class" reserve. The local area (10km radius) is well vegetated with approximately 70% remaining vegetation and a large amount of the remaining vegetation is within DEC managed lands.

There are a number of rare and priority flora recorded in the local area and it is possible that a new form of *Dichopogon* sp. has been collected from the application area. Due to the condition and variety of vegetation types present, the vegetation under application is considered to comprise of a high level of biological diversity.

It has also been noted that there is a known dieback line within close proximity to the proposed clearing and a small infestation of *Wavy gladiolus* was observed in the vegetation to the north of the watercourse (DEC, 2009c). Weed and dieback control conditions will be placed on the permit.

The proposed clearing may be at variance to this principle.

Methodology

References

- DEC (2009c)

- Keighery (1994)

GIS DataSets:

- Busselton 50cm Orthomosaic 9/10/07

- CALM Managed Lands and Waters - CALM 01/06/05

- Mattiske Vegetation (01/03/1998)

- Pre European Vegetation - DA 01/01

- Clearing Regulations, Environmentally Sensitive Areas 30 May 2005

- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

- SAC Biodatasets - accessed 8 Jun 09

(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 application area is situated on the Leeuwin Naturalist Ridge. The local area (10km radius) is well vegetated with approximately 70% of vegetation remaining.

The Western Ringtail Possum (*Pseudocherius occidentalis*) (Vulnerable), Western brush Wallaby (*Macropus irum*) (P4) and the Quenda (*Issoodon obesulus fusciventer*) (P5) were recorded 1.9km north west of the applied area. The Barking owl (*Nonox connivens connivens*) (P2) was recorded 4.7km south east and the Chuditch (*Dasyurus geoffroyi*) (Vulnerable) was recorded 8.9km south the application area.

Due to the size (0.09 ha) and shape (3 metres wide by 300 metres in length) of the applied area and given that the local area is well vegetated, it is considered unlikely that the vegetation under application provides significant habitat for fauna species.

Methodology

GIS DataSets:

- Busselton 50cm Orthomosaic 9/10/07

- CALM Managed Lands and Waters - CALM 01/06/05

- SAC Biodatasets - accessed 8/06/09 Jun 09

- Mattiske Vegetation (01/03/1998)

- Declared Rare and Priority Flora List - CALM 13/08/03

- Pre European Vegetation - DA 01/01

- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments

Proposal may be at variance to this Principle

Within the local area (10km radius) five rare flora species and thirteen priority flora species that have been recorded. Due to the habitat identified on site the following species may occur within the area applied for:

- *Caladenia viridescens* (R) located 1.6km south

- *Caladenia excelsa* (R) located 7.2km south

- *Acacia lateritica* glabrous variant (B.R. Maslin 6765) (P3) located 1km south

- *Caladenia longicauda* subsp. *clivicola* (P4) located 700 metres north west

- *Caladenia arrecta* (P4) located 2.1km north east

(DEC, 2009b)

While the application area is small (0.09 ha), the vegetation appears to be reasonably intact and is biodiverse, comprising of different vegetation types. This suggests that there is some variety in habitats in the area (DEC, 2009a).

In order to determine the presence or absence of rare and priority flora, flora management conditions will be imposed on the permit.

In a recent survey of the application area, a possible new species of *Dichopogon* was collected within the riparian vegetation under application. Further investigation is required to determine if the collected specimen is in fact a new form of the species, however it is recommended that no mechanical/machine clearing occur within areas of riparian vegetation (DEC, 2009c) and that prior to the commencement of clearing the applicant must liaise with officers from the DEC's South West office. The region has suggested that a hand trail be constructed up to one metre wide through the creekline vegetation to minimise disturbance on *Dichopogon* spp. (DEC, 2009d).

The region has also stated that only already flagged sections of the application area have been surveyed. If any additional clearing is required outside the surveyed area, such areas would need surveying. It is recommended that the applicant liaise within the region in regards to areas intended to be cleared as well as hand clearing through riparian areas (DEC, 2009d).

Methodology DEC (2009a)
DEC (2009b)
DEC (2009c)
DEC (2009d)
GIS DataSets:
- Mattiske Vegetation (01/03/1998)
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 8 Jun 09
- 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 3 Threatened Ecological Communities (TEC) located within the local area (10km radius), all of which are buffered. None of the TECs are likely to occur within the applied area (DEC, 2009b).

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

Methodology DEC (2009b)
GIS DataSets:
- SAC Biodatasets - accessed 8 Jun 09
- Mattiske Vegetation (01/03/1998)
- Pre European Vegetation - DA 01/01
- Soils, Statewide DA 11/99

(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 at variance to this Principle**
The local area is well vegetated with approximately 70% pre-European vegetation remaining. As the table below illustrates, the vegetation types present within the application area have remaining percentages of pre-European levels of vegetation above the 30% threshold required in order to prevent the loss of biodiversity (EPA, 2000).

Given that the proposed fire break extensions are to be approximately 3 metres wide by 300 metres in length and that the local area is well vegetated, with a large amount of the remaining vegetation being within DEC managed lands, the vegetation under application is not considered to be an remnant.

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

	Pre-european Extent (ha)	Current extent (ha)	Remaining %
IBRA Bioregion	4,506,655	2,440,940	54.16
Shire of Busselton	146,450.03	61,734.01	42.15
Beard Vegetation			

Association 3 Within bioregion	2,390,590	1,657,274	69.32
Mattiske Vegetation Complex Ww2	908.23	363.85	40.06
Mattiske Vegetation Complex C2	12,878.86	4,731.03	36.73

(Mattiske, 1998; Shepherd et al. 2007)

Methodology EPA (2000)
Mattiske (1998)
Shepherd et al. (2007)
GIS DataSets:
- Busselton 50cm ORTHOMOSAIC - DLI03
- Mattiske Vegetation - CALM 1/03/1998
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 8 Jun 09

(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

A minor non-perennial watercourse (creekline) intersects the north west section of the application area. The vegetation within this area is denser and is likely to contain riparian vegetation. Another minor non-perennial watercourse is 560 metres south west and Meelup Brook (minor non-perennial watercourse) is located 1.2km south east.

To minimize the impact clearing has on riparian vegetation, it is recommended that no mechanical/machine clearing occur within areas of riparian vegetation (DEC, 2009c; DEC, 2009d) and that prior to the commencement of clearing the applicant must liaise with officers from the DEC's South West office. The region has suggested that a hand trail be constructed up to one metre wide through the creekline vegetation to minimise disturbance on riparian vegetation (DEC, 2009d).

Methodology References
- DEC (2009c)
- DEC (2009d)
GIS DataSets:
- EPP Lakes - DEP 28/07/03
- Hydrography Linear - DoE 1/2/04
- Hydrography linear (hierarchy) - DoW 13/7/06

(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 chief soils of the application area are calcareous sands on the strongly undulating slopes of the dunes (Northcote et al 1960 -1968). The elevation of the application area is between 60 -70 metres, the applied area is small (0.09 ha), will only be approximately 3 metres wide and 300 metres long and there is a large amount of surrounding vegetation in the vicinity.

Therefore, the proposed clearing is considered unlikely to result in appreciable land degradation.

Methodology Northcote et al (1960 - 1968)
GIS DataSets:
- Busselton 50cm ORTHOMOSAIC - DLI03
- Soils, Statewide DA 11/99
- Topographic contours statewide - DOLA and ARMY 12/09/02

(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 may be at variance to this Principle

The applied area is within an A class reserve for the purpose of conservation and recreation. The Leeuwin-Naturaliste National Park is located 3.2km west of the application area.

Given the size (0.09 ha) and shape (3 metres wide by 300 metres length) of the applied area and taking into

account that the local area (10km radius) is well vegetated (approximately 70% remaining), The proposed clearing is not likely to significantly impact on conservation areas. However, weeds and dieback could be spread by machinery during clearing which can lead to loss of biodiversity. To mitigate this impact a weed and dieback condition will be placed on the permit.

Methodology GIS DataSets:
- Busselton 50cm ORTHOMOSAIC - DLI03
- CALM Managed Lands and Waters - CALM 01/06/05

(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**
A minor non-perennial watercourse intersects the north west section of the application area. The vegetation within this area is denser and is likely to contain riparian vegetation. Another minor non-perennial watercourse is 560 metres south west and Meelup Brook (minor non-perennial watercourse) is located 1.2km south east.

Groundwater salinity is 1000 - 3000 mg/L. The chief soils of the application area are calcareous sands on the strongly undulating slopes of the dunes (Northcote et al 1960 -1968).

As the applied area is small and linear in shape (3 metres wide by 300 metres length), groundwater and surface water quality are unlikely to be adversely impacted by the proposed clearing.

Methodology Northcote et al (1960-1968)
GIS DataSets:
- Salinity Risk LM 25m - DOLA 00
- Topographic Contours, Statewide - DOLA 12/09/02

(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 mean annual rainfall is 900mm and the elevation of the applied area ranges from 60 -70 metres. The local area is well vegetated (approximately 70% remaining).

The proposed clearing of 0.09 hectares which is estimated to occur over a length of 300 metres and will be approximately 3 metres wide, within a well vegetated, gradually sloping topography is unlikely to increase the incidence or intensity of flooding.

Methodology GIS DataSets:
- Busselton 50cm ORTHOMOSAIC - DLI03
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments
The Shire of Busselton has authorised the applicant to apply for the clearing permit on their behalf (Trim Ref: DOC8680).

The area under application is zoned for conservation and recreation.

The proposed clearing crosses a watercourse, however as the area is not a proclaimed surface water area; a licence to interfere with bed and banks is not required.

While the proposed clearing is to occur within an 'A Class' reserve, the reserve is vested within the Shire of Busselton and no permission from the Conservation Commission is required.

Methodology

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matter in accordance with s510 of the Environmental Protection Act 1986 has found that the proposed clearing:

- may be at variance to Principles (a), (c), (f) & (h)
- is not likely to be at variance to Principles (b), (d), (g), (i) and (j)
- is not at variance to Principle (e)

5. References

- DEC (2009a) Flora Advice. Department of Environment and Conservation Trim Ref DOC87640
- DEC (2009b) Regional Advice. South West Region. Department of Environment and Conservation Trim Ref DOC87699
- DEC (2009c) Regional Advice. South West Region. Department of Environment and Conservation Trim Ref DOC105114
- DEC (2009d) Regional Advice. South West Region. Department of Environment and Conservation Trim Ref DOC105946
- 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.
- Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

6. 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
DolR	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)