GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS
Area Permit Number: 3004 / 1
File Number: DEC10520
Duration of Permit: From 26 April 2009 to 26 April 2011

PERMIT HOLDER
John Kinnear on behalf of Pasquale and Fortuna Boccamazzo

LAND ON WHICH CLEARING IS TO BE DONE
Lot 4 on Plan 19583

AUTHORISED ACTIVITY
The Permit Holder shall not clear more than 4.8 hectares of native vegetation, within the area hatched yellow on attached Plan 3004/1.

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. **Vegetation management**

   The Permit Holder shall not clear native vegetation within 30 metres of the *riparian vegetation* of any *watercourse* or *wetland* within the area cross-hatched yellow on Plan 3004/1.

3. **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.

4. **Records to 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 the retention of a buffer of areas pursuant to condition 2 of this Permit:
   (i) the commencement date of buffer retention;
   (ii) the location of any area buffered recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
   (iii) a description of the buffering activities undertaken;
   (iv) the size of the area buffered (in hectares);and
   (v) the species, structure and composition of buffered vegetation measured.

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 26 January 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;

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;

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

term means the duration of this Permit, including as amended or renewed;

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

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 *Agricultural and Related Resources Protection Act 1976*.

wetland/s means an area of seasonally, intermittently or permanently waterlogged or inundated land, whether natural or otherwise, and includes a lake, swamp, marsh, spring, dampland, tidal flat or estuary.

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

Officer delegated under Section 20
of the Environmental Protection Act 1986

26 March 2009

Plan 3004/1

LEGEND

Clearing Instruments
Cadastre
Albany Mount Barker 1.4m
Orthomosaic - Landgate

N

0 ~200 m

Scale 1:7528
(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 26/3/09.

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 acknowleged by the agency acronym in the legend

Department of Environment and Conservation

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Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 3004/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: John Kinnear

1.3. Property details

Property: LOT 4 ON PLAN 19583 (MARBELUP 6330)
LOT 4 ON PLAN 19583 (MARBELUP 6330)
Local Government Area: City Of Albany
Colloquial name:

1.4. Application

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

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 Unit: 978 - Low forest; jarrah, Eucalyptus staeri & Allocasuarina fraseriana	The proposal is to clear 4.8ha of native vegetation in good (Keighery, 1994) condition for the purpose of establishing a building envelope.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation was determined through aerial mapping (Albany Mt Barker 1.4m Orthomosaic - Landgate 02).

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 4.8 ha of native vegetation in good (Keighery, 1994) condition for the purpose of constructing a building envelope.

The local area (10km radius) retains approximately 40% native vegetation much of which is in a similar or better condition as the applied area.

The vegetation under application forms a part of the Marbellup Link Macro Corridor, a west to east ecological linkage which forks south near the applied area. Clearing of the vegetation under application will not break the linkage however it is likely to incrementally degrade the linkage.

There is a number of priority, threatened and endangered fauna found in the local area however given the retained vegetation nearby the application area is not likely to be significant habitat for these conservation significant fauna or other native fauna.

Eleven priority flora species have been recorded in the local area within the same mapped soil and vegetation types. Of these the applied area contains habitat for two priority species and may contain habitat for three more (WA Herb, 1998 -).

There are no Threatened or Priority Ecological Communities (TECs or PECs) recorded within the local area.

Given the above the clearing as proposed may be at variance to this principle as the applied area is part of the Marbellup Link Macro Corridor.

A dieback and weed management condition will be placed on the permit to mitigate the potential for clearing to

impact on the biodiversity values of nearby vegetation remnant as a result of clearing.

Methodology

References:
Keighery (1994)
WA Herb (1998 -)

GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05
SAC Bio datasets - accessed 3 March 2009
Pre European Vegetation - DA 01/01
Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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 local area (10km) retains approximately 40% native vegetation in good (Keighery, 1994) condition and is part of a larger remnant of vegetation.

There area number of priority, threatened or endangered fauna recorded within the local area, namely:
- Galaxiella nigrostriata (Black Stripe Minnow, P3)
- Galaxiella munda (Western Mud Minnow, VU)
- Nannatherina balstoni (Balston's Pygmy Perch, VU)
- Charadrius rubricollis (Hooded Plover, P4)
- Austrarchaea mainae (Western Archaeid Spider, VU)
- Calyptorhynchus banksii naso (Forest Red-tailed Black Cockatoo, VU)
- Isodon obesulus fusciventer (Quenda, P5)
- Ardeotis australis (Australian Bustard, P4)
- Atrichornis clamosus (Noisy Scrub Bird, EN)
- Hydromys chrysogater (Water Rat, P4)
- Pseudocherius occidentalis (Western Ringtail Possum, VU)
- Botaurus poiciloptilus (Australian Bittern, VU)

The area under application is part of an ecological linkage from the west to the east and south. This proposal is likely to incrementally add to the deterioration of this linkage however given the extent of vegetation (approximately 40%)within the local area in similar or better condition as the applied area, the vegetation under application is not likely to be significant for the maintenance of, or as habitat for, native fauna.

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

Methodology

References:
Keighery (1994)

GIS Database:
SAC Bio Datasets accessed 3 March 2009

(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 two records of rare flora within the local area (10km radius), namely Banksia brownii and Microtis globula.

B. brownii has been recorded in the same mapped vegetation and soil types as the applied area however given that B. brownii is known to occur in gullies (WA Herb, 1998 -) and that the applied area is on a midslope this rare flora is unlikely to occur within the applied area.

M. globula is known to occur in winter wet swamps and taking into account the midslope situation of the applied area and the presence of preferred habitat in a marsh area south west of the applied area, this rare flora is not likely to occur within the area under application.

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

Methodology

References:
WA Herb (1998 -)

GIS Database:

Hydrography linear - DOW 13/7/06
Hydrography linear (hierarchy) - DoW 13/7/06
Pre European Vegetation - DA 01/01
SAC Biodatasets - accessed 3 March 2009
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 no known records of threatened ecological commuities (TECs) within the local area (10km radius).

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

Methodology

GIS Database:
SAC Biodatasets - accessed 3 March 2009

(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

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In DEC Managed Land
IBRA Bioregions**				
Jarrah Forest*	4,671,007	2,601,026	55.68	71.15
Shire**				
City of Albany*	431,549	163,977	38.00	23.58
Beard Vegetation Complex**				
978 statewide*	53,126	20,779	39.11	22.82
978 in JF bioregion*	53,016	20,676	39.00	22.84

* (Shepherd et al. 2007)
** (Shepherd et al., 2001; Hopkins et al., 2001)

The local area (10 km radius) retains approximately 40% native vegetation and the applied area is a small part of an ecological linkage which travels from the west to the east and south.

The proposal will likely cause incremental deterioration of this ecological linkage, however, given the retention of vegetation in the local area, the vegetation under application is not likely to be significant to the local area at this point in time.

Therefore the clearing as proposed is not likely to be at variance to this principle as it is not likely to be significant vegetation in an extensively cleared landscape.

Methodology

References:
Hopkins et al. (2001)
Shepherd et al. (2001)
Shepherd (2007)

GIS Database:
Interim Biogeographic Regionalisation of Australia - EA 18/10/00
Local Government Authorities - DLI 8/07/04
Pre European Vegetation - DA 01/01
SAC Biodatasets - accessed 3 March 2009
NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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

There is a mapped marsh area approximately 10m south west and a minor drain approximately 20 north west of the applied area.

The marsh area is connected to a minor non-perennial watercourse which is a tributory of Marebelup Brook.

Given the close proximity of the area under application to the marsh area some vegetation within the applied area might be growing in association with a watercourse.

Therefore the clearing as proposed may be at variance to this principle.

A vegetation management condition stipulating a 30m buffer from the marsh area will be placed on the permit to mitigate the potential for clearing to impact on vegetation associated with a watercourse.

Methodology

GIS Database:
ANCA wetlands - Environment Australia 26/3/99
CALM Managed Lands and Waters - CALM 01/06/05
EPP Lakes Policy Area - DEP 14/05/97
EPP, Wetlands 2004 (DRAFT) - EPA 21/7/04
Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain DEC 11/04/07
Hydrography linear - DOW 13/7/06
Hydrography linear (hierarchy) - DoW 13/7/06
Ramsar wetlands - DEC 03
South Coast Significant Wetlands - WRC 10/06/2003

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments

Proposal may be at variance to this Principle

The area under application is situated on the midslope of a hillside with elevation ranging from 35m to 55m AHD over a 200m distance.

The soils of the applied area are mapped as chiefly leached sands, some with peaty surface horizons (Northcote et al., 1980).

Given the topography and soils of the applied area the clearing as proposed may be at variance to this principle.

DEC recognised that the purpose of clearing is for a building envelope. Given this the impact of land degradation will likely be short term and not provide lasting impact on nearby vegetation.

Methodology

References:
Northcote et al (1980)

GIS Database:
Average Annual Rainfall Isohyets - WRC 29/09/98
Annual Evaporation Contours (Isopleths) - WRC 29/09/98
Hydrogeology, statewide DOW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07
Hydrography, linear - DOW 13/7/06
Salinity Risk LM 25m - DOLA 00
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 is not likely to be at variance to this Principle

There are a number of DEC managed lands within the local area (10 km radius) namely:
* Down Road Nature Reserve (2.8km east)
*Marbelup Nature Reserve (4 km south east)
* Lake Powell Nature Reserve (7.1km south east)
* Un-named Nature Reserve (5.5km south west)
* Phillips Brook Nature Reserve (9.5km north east)

Given the distance between the applied area and the closest DEC managed land is approximately 2.8km, the clearing as proposed is not likely to impact on the environmental values of any conservation area.

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

Methodology GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05
Hydrography, linear - DOW 13/7/06
Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02
System 1 to 5 and 7 to 12 areas DEC 11/7/06

(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

There is a marsh area approximately 10m south west of the applied area which is connected to a minor non-perennial watercourse (75m south west; tributory of Marbelup Brook).

The clearing as proposed may lead to temporary appreciable land degradation due to the topography and soils of the applied area.

Given the close proximity of the applied area to surface water expressions and the likelihood of clearing resulting in degradation of the soils under application, the clearing as proposed may cause a deterioration in the quality of surface water within the local area temporarily.

Therefore the clearing as proposed may be at variance to this principle.

A vegetation management condition will be placed on the permit to mitigate the potential for clearing to impact on surface water expression areas.

Methodology GIS Database:
Evapotransporation Isopleths - WRC 29/09/98
Groundwater Salinity Statewide DoW 13/07/06
Hydrographic catchments, catchments - DoW 01/06/07
Hydrography, linear - DOW 13/7/06
Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
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 local area (10 km radius) retains approximately 40% native vegetation and given the midslope situation of the applied area the removal of 4.8ha of native vegetation is not likely to cause or exacerbate the incidence or intensity of flooding.

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

Methodology GIS Database:
Evaporation Isopleths - WRC 29/09/98
Hydrographic catchments, catchments - DoW 01/06/07
Hydrography, linear - DoW 13/7/06
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 area under application is within the City of Albany and is zoned as Rural, therefore the size of the building envelope is not restricted by a Town Planning Scheme. However advice from the City of Albany identified that the applied area was large for a buidling envelope and that the area is part of the Marbellup Link Macro Corridor (DOC79561).

The area under application is within the Albany groundwater Rights in Water Irrigation area.

Methodology

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing may be at variance to Principle (a),(f), (g) and (i) and is not likely to be at variance to the remaining clearing Principles.

5. References

Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.

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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

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.

Western Australian Herbarium (1998-). FloraBase The Western Australian Flora. Department of Environment and Conservation. http://florabase.dec.wa.gov.au/ (Accessed 3/3/2009).

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
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)