GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 5175/1
Permit Holder:	Shire of Dardanup
Duration of Permit:	5 October 2012 – 5 October 2017

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 road widening.

2. **Land on which clearing is to be done**
   Ferguson Road reserve, Wellington Mill (PIN: 1315140)
   Ferguson Road reserve, Wellington Forest (PIN: 1315141, 1315142, 1315143, 1315144, 1315145, 1315154, 1315158, 1315160, and 1315161)
   Ferguson Road reserve, Lowden (PIN: 1315159)

3. **Area of Clearing**
   The Permit Holder must not clear more than 1.5 hectares of native vegetation within the area shaded yellow on attached Plan 5175/1.

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**
   This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Local Government Act 1995* or any other written law.

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. 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 only move soils in *dry 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

DEFINITIONS

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

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

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

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;

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*.

Roxane Shadbolt

Roxane Shadbolt
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

Officer delegated under Section 20
of the Environmental Protection Act 1986

13 September 2012

Plan 5175/1



LEGEND

- Local Government Authorities
- Clearing Instruments
  - Areas Approved to Clear
- Road Centrelines
- Cadastre
- Bunbury 50cm Orthomosaic - Landgate 2008
- Donnybrook 50cm Orthomosaic - Landgate 2004

N

0 375 m

Scale 1:15000
(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.

R. Shadbolt Date 13/9/12
Roxane Shadbolt

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

Our environment, our future

WA Crown Copyright 2002

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

Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5175/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Shire of Dardanup

1.3. Property details

Property: ROAD RESERVE (WELLINGTON MILL 6236)
ROAD RESERVE (WELLINGTON FOREST 6236)
ROAD RESERVE (LOWDEN 6240)
Local Government Area: Shire of Dardanup
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
1.5		Mechanical Removal	Road construction or maintenance

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 13 September 2012

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-marri (Shepherd et al. 2001).	The application is to clear up to 1.5 hectares of native vegetation along Ferguson road, for the purpose of road widening.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994).	Vegetation description and condition were determined through aerial imagery and site inspection (DEC 2012).
Beard Vegetation Association: 1184 - Medium woodland-fringing; jarrah, marri, Eucalyptus rudis & Agonis flexuosa (Shepherd et al. 2001).	The majority of the application area is adjacent to Wellington State Forest.	To	
Mattiske Vegetation Complex: HR - Tall open forest to open forest of Eucalyptus marginata subsp. marginata-Corymbia calophylla on lateritic uplands in perhumid and humid zones (Mattiske & Havel 1998).	The vegetation consists of a Eucalyptus marginata and Corymbia calophylla overstorey with Agonis flexuosa; the understory species include Persoonia longifolia, Xanthorrhoea preissii, Bossiaea aquifolium, Hakea amplexicaulis, Hakea lissocarpha, Acacia pulchella, Acacia urophylla, Pteridium esculentum and Macrozamia riedlei and groundcover species such as Hibbertia hypericoides and other native herbaceous species (DEC 2012).	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994).	
Mattiske Vegetation Complex: GR - Tall open forest to open forest of Corymbia calophylla-Eucalyptus marginata subsp. marginata with Eucalyptus patens on slopes and Eucalyptus rudis over some Agonis flexuosa on lower slopes in the humid zone (Mattiske & Havel 1998).			

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 application is to clear up to 1.5 hectares of native vegetation within the Ferguson Road reserve for the purpose of road widening. The majority of the application area is adjacent to Wellington State Forest and is in very good (Keighery 1994) condition. The northern section of the application area is adjacent to farmland and is in good to degraded (Keighery 1994) condition.

There are several priority flora species recorded within the local area (10 kilometre radius). The closest species recorded on the same soil and vegetation type as the application area is Senecio leucoglossus (priority 4),

which was recorded approximately 5.6 kilometres north of the application area. The proposed clearing is unlikely to impact upon this species.

Trees suitable to be utilised by fauna were observed during a Department of Environment and Conservation (DEC) site inspection, however it is unlikely that any large hollow bearing trees will be removed (DEC 2012). Given the extent of the surrounding vegetation, any trees that are removed are unlikely to be significant habitat for these species.

Given the proximity of the application area to Wellington State Forest, the proposed clearing is unlikely to comprise of a high level of biological diversity within the local area.

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

Methodology

References:
DEC 2012
GIS databases:
- Bunbury 50cm Orthomosaic - Landgate 2008
- Donnybrook 50cm Orthomosaic - Landgate 2004
- Mattiske Vegetation Complexes
- Pre European Vegetation
- SAC Biodatasets
- Soils, Statewide

(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 nine fauna species of conservation significance within the local area (10 kilometre radius).

The local area (10 kilometre radius) provides habitat to Carnaby's Cockatoo (Calyptorhynchus latirostris; rare or likely to become extinct, Wildlife Conservation Act 1950; endangered, Environment Protection and Biodiversity Conservation Act 1999), Forest Red-tailed Black-Cockatoo (Calyptorhynchus banksii subsp. Naso; rare or likely to become extinct, Wildlife Conservation Act 1950; vulnerable, Environment Protection and Biodiversity Conservation Act 1999) and Baudin's Cockatoo (Calyptorhynchus baudinii; rare or likely to become extinct, Wildlife Conservation Act 1950; vulnerable, Environment Protection and Biodiversity Conservation Act 1999) (DEC, 2007-).

Where possible when clearing, large trees will be retained (Shire of Dardanup 2012). Given the extent of the surrounding vegetation (Wellington State Forest), trees that are removed are unlikely to be significant habitat for these species.

Other threatened species recorded within the local area (10 kilometre radius) include the Chuditch/ Western Quoll (Dasyurus geoffroii), Western Ringtail Possum (Pseudocheirus occidentalis), Quokka (Setonix brachyurus), and the Quenda/Southern Brown Bandicoot (Isoodon obesulus subsp. fusciventer). Peppermint trees (Agonis flexuosa) located within the application area may provide habitat for Western Ringtail Possums. However, the trees within the application area are unlikely to be a significant habitat for this species given the adjacent State Forest.

A minor, perennial watercourse intersects the application area. The associated vegetation of dense sedges may provide habitat for Quokkas. Stacking of cleared vegetation on these areas or blocking of the culverts should be avoided in order to prevent potential habitat from being damaged.

Given the significant remnant of vegetation surrounding the application area the proposed clearing is not likely to be at variance to this principle.

Methodology

References:
DEC 2007-
Shire of Dardanup 2012

(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 no records of rare flora within 10 kilometres of the application area and therefore the proposed clearing is not likely to be at variance to this principle.

Methodology

GIS databases:
- SAC Biodatasets

(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 10 kilometres of the application area and therefore the proposed clearing is not likely to be at variance to this principle.

Methodology

GIS databases:
- SAC Biodatasets

(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

Aerial photography indicates the local area (10 kilometre radius) is approximately 50 per cent vegetated. The majority of this vegetation is located on DEC managed land. The application area is bordered by Wellington State Forest.

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 associations mapped over the application area retain over 30 per cent of their pre-European extents within the Jarrah Forrest IBRA Bioregion (Government of Western Australia 2011).

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

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Jarrah Forest	4 506 657	2 473 560	55	68
Shire*				
Shire of Dardanup	52 832	25 745	49	81
Beard Vegetation Association in Bioregion*				
1184	63 562	25 837	40	56
3	2 390 592	1 641 272	69	80
Mattiske Vegetation Complex **				
HR	32 250	24 492	76	68
GR	22 047	11 547	52	44

* Government of Western Australia 2011
** Mattiske & Havel 1998

Methodology

References:
Commonwealth of Australia 2001
Government of Western Australia 2011
Mattiske & Havel 1998
Shepherd et al 2001
GIS Databases:
- Bunbury 50cm Orthomosaic - Landgate 2008
- DEC Managed Lands
- Donnybrook 50cm Orthomosaic - Landgate 2004
- NLWRA, Current extent of Native Vegetation
- Mattiske Vegetation Complexes
- Pre-European Vegetation
- SAC Bio Datasets

(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

There is one minor, perennial watercourse intersecting the application area, with associated vegetation of dense sedges such as Lepidosperma tetraquetrum and a high density of Agonis flexuosa.

Therefore the proposed clearing is at variance to this principle.

Methodology GIS Databases:
- Bunbury 50cm Orthomosaic - Landgate 2008
- Donnybrook 50cm Orthomosaic - Landgate 2004
- ANCA Wetlands
- Ramsar Wetlands
- 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 soil within the application area is mapped as Tf5, which Northcote et al. (1960 - 1968) describes as dissected lateritic plateau of a generally hilly relief: chief soils on the slopes are hard acidic, and also neutral, yellow mottled soils containing moderate to large amounts of ironstone gravels.

Given the small, linear area under application and the existing road infrastructure it is unlikely that land degradation would be a significant issue and the proposed clearing is therefore unlikely to be at variance to this principle.

Methodology References:
Northcote et al. 1960-1968
GIS Databases:
- Soils, Statewide
- Topographic Contours, Statewide
- Mean Annual Rainfall

(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 application area is adjacent to Wellington State Forest. The disturbance caused by the proposed clearing may increase the risk of weeds and dieback spreading into the adjacent state forest. Weed and dieback management practices will assist in reducing the potential impacts.

The proposed clearing may be at variance to this principle.

Methodology GIS Databases:
- Bunbury 50cm Orthomosaic - Landgate 2008
- Donnybrook 50cm Orthomosaic - Landgate 2004
- DEC Managed Lands

(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

The groundwater salinity within the application area is 500-1000 milligrams per litre of Total Dissolved Solids. This level of groundwater salinity is considered to be marginal.

One minor, perennial watercourse intersects the application area, with several other minor watercourses surrounding the area. During the works, the proposed clearing may cause short term water quality issues, such as localised surface water sedimentation. However, these issues are likely to be minimal as existing road infrastructure will prevent any significant water quality issues.

Therefore, the proposed clearing is unlikely to be at variance to this principle.

Methodology GIS Databases:
- Hydrography, Linear
- Public Drinking Water Source Areas (PDWSA)
- Soils, Statewide
- Groundwater Salinity, Statewide

(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

Given the small, linear area under application and the existing road infrastructure to manage drainage the proposed clearing is unlikely to cause or exacerbate flooding. Therefore is not likely to be at variance to this principle.

Methodology GIS Databases:
- Bunbury 50cm Orthomosaic - Landgate 2008
- Donnybrook 50cm Orthomosaic - Landgate 2004
- Soils, Statewide

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

Comments

No public submissions have been received in responses to this application.

Methodology

4. References

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

DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: http://naturemap.dec.wa.gov.au/. Accessed 03/08/2012

DEC (2012) Site Inspection Report for Clearing Permit Application CPS 5175/1, Ferguson Road reserve, Ferguson. Site inspection undertaken 20/08/2012. Department of Environment and Conservation, Western Australia (DEC REF:A539572).

Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.

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., 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 Dardanup (2012) Clearing Permit Application CPS 5175/1 - Ferguson Road reserve, Ferguson (DEC REF: A527128).

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)