



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4981/1
File Number: 2012/002236-1
Duration of Permit: 22 June 2012 to 22 June 2014

PERMIT HOLDER

Fire and Emergency Services Authority of Western Australia

LAND ON WHICH CLEARING IS TO BE DONE

Lot 10261 on Deposited Plan 215367 (Forrestfield, 6058)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.14 hectares of native vegetation within the area hatched yellow on attached Plan 4981/1.

CONDITIONS

1. 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;

weeds 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*.

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

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

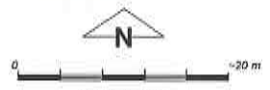
31 May 2012

Plan 4981/1



LEGEND

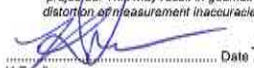
- Clearing instruments**
-  Areas Approved to Clear
 -  Cadastre
- Perth Metropolitan Central
15cm Orthomosaic - Landgate
2011



Scale 1:691
(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 31/5/12

K Fülkner
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.



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



1. Application details

1.1. Permit application details

Permit application No.: 4981/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Fire and Emergency Services Authority of Western A

1.3. Property details

Property: LOT 10261 ON PLAN 215367 (House No. 547 DUNDAS FORRESTFIELD 6058)

Local Government Area: Shire of Kalamunda

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 31 May 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
The area under application is mapped as the following vegetation types: Beard Vegetation Association 1001 - Medium very sparse woodland; jarrah, with low woodland; banksia & casuarina. (Shepherd et al, 2001).	The application is to clear up to 0.14 hectares of native vegetation within Lot 10261 on Plan 215367, for the purpose of creating a vehicle ramp for driver training. The vegetation is typical of the local flora structure, although showing signs of disturbance: open Banksia menziesii;	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The majority of the vegetation under application is consistent with the mapped vegetation types and is in a mostly good (Keighery, 1994) condition. This is due to the patchy and altered appearance of the groundcover and mid-storey, that the upper-storey is mostly missing, evidence of rabbit activity and presence of some weeds (DEC, 2012c).
Heddle Vegetation complex 42 - Southern River Vegetation Complex: Open woodland of Eucalyptus. calophylla - Eucalyptus. marginata - Banksia species with fringing woodland of Eucalyptus rudis - Melaleuca raphiophylla along creek beds. (Hedde et al. 1980)	Corymbia calophylla, Eucalyptus marginata; Allocasuarina humils/fraseriana; Nuytsia floribunda low woodland and associated shrubland vegetation including Adenanthos cygnorum, Xanthorrhoea preisii and Stirlingia latifolia. A linear strip of grevilleas have been planted along the entire length of the eastern side of the application area (DEC, 2012c).		

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 0.14 hectares of native vegetation within Lot 10261 on Plan 215367, for the purpose of creating a vehicle training area.

The vegetation within the application area is typical of the local flora structure, although it does exhibit signs of being disturbed: open Banksia menziesii/ Corymbia calophylla, Eucalyptus marginata/ Allocasuarina humils/fraseriana, Nuytsia floribunda low woodland and associated shrubland vegetation including Adenanthos cygnorum, Xanthorrhoea preisii and Stirlingia latifolia. Some individual banksia, eucalyptus and Adenanthos are either dead or in poor health. It is possible that the application area may be showing early symptoms of dieback (Phytophthora cinnamomi) as it is present (and being managed by the landmanager) elsewhere within Lot

10261. (DEC, 2012c).

Two individual plants of a rare (Wildlife Conservation Act 1950) flora species, *Conospermum undulatum*, are located within the application area. The applicant has submitted to DEC an 'application to take' these two individuals (DEC, 2012a).

An A-Class Nature Reserve (ex Bush Forever site 319) occurs nearby to the application area with a 10m firebreak and electric fence separating the two. This reserve appears to be in excellent (Keighery, 1994) condition (DEC, 2012c).

The majority of the vegetation is in a good (Keighery, 1994) condition. This is due to the patchy and altered appearance of the groundcover and mid-storey, that the upper-storey is mostly missing, evidence of rabbit activity and presence of some weeds (DEC, 2012c). Given the condition of the vegetation it is not likely to contain the same ecological values as that of the nearby reserve. As such, the clearing as proposed is not likely to be at variance to this Principle.

Methodology

References:

- DEC (2012a and 2012c)
- Keighery (1994)

GIS databases:

- Perth Metropolitan Central 15cm Orthomosaic
- Hedde Vegetation Complexes
- Pre European Vegetation
- Clearing Regulations, Environmentally Sensitive Areas
- SAC Biodatasets (Accessed May 2012)

(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

No threatened (or priority listed) fauna are known to occur with the application area or the remainder of Lot 10261.

The vegetation within the area under application is a partly disturbed and altered, open low woodland with an open shrubland / understorey. It is bordered on the western side by a 10m (5m either side of property line) firebreak and electric fence, a sealed road and existing infrastructure on the eastern side, a carpark at the northern end and driveway/building at the southern end (DEC, 2012c). The open nature of the vegetation and the isolation of the vegetation renders it unlikely to serve as an ecological linkage between well vegetated areas (nearby nature reserve). It is unlikely that the vegetation under application is necessary for the maintenance of significant fauna habitat and the loss of this small remnant (0.14ha) is unlikely to be at variance to this principle.

Methodology

References:

- DEC (2012c)

GIS database:

- SAC Biodatasets (Accessed May 2012)

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

Comments

Proposal is at variance to this Principle

Two individual plants of *Conospermum undulatum*, a rare (Wildlife Conservation Act 1950) flora species are located within the area under application. The removal of two plants will have a negligible impact on the conservation significance of this species locally and in a regional context. The species is also recorded elsewhere on the property, the nearby nature reserve, surrounding Bushforever site and surrounding suburbs (SAC Biodatasets; Western Australian Herbarium, 1998-).

The applicant has submitted to DEC an 'application to take' these two individuals (DEC, 2012a).

Due to the presence of the rare species, the clearing as proposed is at variance to this Principle.

Methodology

References:

- Western Australian Herbarium (1998-)

GIS databases:

- SAC Biodatasets (Accessed May 2012)

(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 area under application is not mapped as a Threatened Ecological Community (TEC).

Two TEC's are mapped between 280 and 780m from the area under application - *Eucalyptus calophylla*-*Kingia australis* woodlands on heavy soils (Critically endangered) and Southern wet shrublands (Endangered). It is unlikely the application area is representative of these TEC's given the application area comprises white, sandy soils and does not contain wetland vegetation.

One TEC occurs nearby to the application area - *Banksia attenuata* woodland over species rich dense shrublands (Endangered), which is now part of a 19ha A-Class nature reserve.

Although these communities occur on the same Beard and/or Heddle Vegetation Complex as the application area, the disturbed and altered nature of the application area indicates it is unlikely to be a TEC or be required for the maintenance of the TEC in the nearby nature reserve.

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

Methodology GIS databases:

- SAC Biodatasets (Accessed May 2012)
- Heddle Vegetation Complexes
- Pre European Vegetation
- Soils, Statewide

(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 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 in the application area belongs to Beard Vegetation association 1001 of which there is 14,152 hectares and 25% remaining (Government of Western Australia 2011), and the Southern River Heddle Vegetation Complex of which there is 11,501 hectares and 19% of pre-European settlement vegetation remaining (Heddle et al. 1980).

The clearing of a small (0.14ha) disturbed and altered area that is near to a large (19ha), well maintained nature reserve is unlikely to be significant in a broad environmental context. In addition, aerial imagery (Perth Metropolitan Central 15cm Orthomosaic 2011) and observations made during a site inspection (DEC, 2012c) suggests that the vegetation in the nearby nature reserve is in excellent (Keighery, 1994) condition compared to the disturbed area under application.

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

Methodology References:

- Commonwealth of Australia (2001)
- DEC (2012c)
- Keighery (1994)
- Government of Western Australia (2011)

GIS database:

- Perth Metropolitan Central 15cm Orthomosaic 2011
- Heddle Vegetation Complex

(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 not likely to be at variance to this Principle

There are no watercourses present within the application area. Lot 10261, prior to development, once formed part of a multiple-use, palusplain wetland, however the application area is no longer mapped as a wetland. Part of the wetland boundary bisects a nearby nature reserve and is separated from the application area by a 10m firebreak and electric fence (GIS database; DEC, 2012c).

The removal of a small amount of vegetation (0.14ha) from within a disturbed and altered vegetative community is considered unlikely to have any significant impacts on the palusplain wetland.

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

Methodology References
- DEC (2012c)

GIS database
- Geomorphic 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 clearing of a small area of vegetation (0.14ha) in a relatively flat landscape with deep sands is unlikely to cause any land degradation on or off-site.

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

Methodology GIS databases:
- Acid Sulphate
- Hydrography, linear
- Soils, Statewide
- Topographic contours 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**
A 19 hectare, Department of Environment and Conservation A-Class nature reserve (ex-part of Bush Forever site 319) occurs near to the area under application, separated by a 10m firebreak and electric fence. Given the small amount of proposed clearing (0.14ha), the firebreak and the disturbed and altered condition of the application area (DEC, 2012c), it is unlikely to provide an ecological linkage to the nature reserve.

Therefore, the clearing as proposed is not likely to be at variance to this principle. Weed and dieback management practices will mitigate any potential impacts to the nearby reserve.

Methodology References:
- DEC (2012c)

GIS databases:
- DEC Tenure
- Bushforever
- Cadastre

(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 area under application is not within a Public Drinking Water Source Area and falls within a low salinity risk (500-1000 mg/l) zone (GIS database). Due to the relatively flat nature of the application area and surrounding landscape, and that only a small amount of vegetation (0.14ha) is proposed to be removed, the clearing is unlikely to have any indirect or direct impacts on the quality of surface or underground water.

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

Methodology GIS databases:
- Hydrographic Catchments
- Groundwater Salinity
- Topographic contours 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**
The application area consists of deep, white sand, the landscape is relatively flat and there are no watercourses within the area under application (DEC, 2012c). The removal of a small amount of vegetation (0.14ha) is unlikely 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 References:
- DEC (2012c)

- GIS databases:
- Hydrographic Catchments
 - Hydrography - linear
 - Soils, Statewide
 - Topographic contours, Statewide

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

Comments

A memorial (K577561) is registered on the Certificate of Title classifying Lot 10261 as "Contaminated - restricted use". Hydrocarbons and volatile organic contamination of soil and groundwater has been detected. Restricted use relates only to groundwater extraction and intrusive (soil) activities, and thus has no bearing on this application to clear as the end land use is for the construction of a driver training area. (DEC, 2012a; DEC, 2012b)

One public submission was received objecting to the proposed clearing on the grounds that it is at variance to principle (a), (b), (c) and (g), may be at variance to principle (d) and is seriously at variance to principle (e) (Submission, 2012).

The assessment of the clearing proposal agrees only that principle (c) is at variance, due to the presence of two individuals of a rare flora species. Principles (a), (b), (d), (e) and (g) were determined to be unlikely to be at variance.

Whilst the submission compared the application area with the ecological values of the nearby Bushforever site (now a 19ha DEC A-Class nature reserve), the small, isolated area under application is not likely to contain those same ecological values. The application area is beginning to show signs of disturbance and the influence of activities associated with the use of the training facilities, as outlined in principles (a), (b), (d), (e) and (g). It is unlikely the loss of approximately 0.14ha of vegetation will reduce the ecological values of the nearby nature reserve.

The applicant has submitted to DEC's Species and Communities Branch an application to take two individuals of a rare flora species located within the application area.

Methodology

References:

- DEC (2012a, 2012b and 2012c)
- Submission (2012)

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2012a), File Note, telephone conversation with applicant contact, dated 10 May 2012 (DEC Ref: A502878)
- DEC (2012b), Summary of Records, Contaminated Sites database, dated 10 May 2012 (DEC Ref: A502880)
- DEC (2012c) Site Inspection Report for Clearing Permit Application CPS 4981/1, Lot 10261, Dundas Road, Forrestfield. Site inspection undertaken 16 May 2012. Department of Environment and Conservation, Western Australia (DEC Ref. A505728).
- Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Environment and Conservation, Perth.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, 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.
- 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.
- Submission (2012) Direct Interest Submission for clearing permit application CPS 4981/1. Received 9 May 2012 (DEC Ref. A502654).
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed May 2012).

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)