

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number: CPS 4253/1

Permit Holder: Michela Drake

Duration of Permit: 16 May 2011 – 16 May 2019

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 Timber Harvesting.

2. Land on which clearing is to be done

LOT 10 ON DIAGRAM 98580 (MIDDLESEX 6258)

3. Area of Clearing

The Permit Holder must not clear more than 8.4 hectares of native vegetation within the area hatched yellow on attached Plan 4253/1.

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

To the extent authorised under condition 3 of this Permit, the Permit Holder may undertake the following activities within the area cross-hatched yellow on Plan 4253/1:

- (a) The Permit Holder may undertake the following activities:
 - (i) clearing and burning of understorey;
 - (ii) thinning of Jarrah (Eucalyptus marginata), Marri (Corymbia calophylla) and Karri (Eucalyptus diversicolor) trees; and
 - (iii) culling and burning of unsaleable trees.
- (b) The Permit Holder shall not clear any native vegetation after 16 May 2015, being four years from the date from which this permit becomes valid.

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

- (a) 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*:
 - (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (ii) shall only move soils in dry conditions;
 - (iii) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
 - (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any weeds growing within areas cleared under this Permit.

9. Vegetation management

- (a) Prior to undertaking any clearing authorised under this Permit, an *environmental specialist* must determine the species composition, structure and density of the *understorey* of areas proposed to be *thinned*.
- (b) The Permit Holder must retain a minimum of 2 habitat trees within the area of clearing authorised under this Permit in each hectare authorised under this Permit.
- (c) A minimum retention rate of 18m²/ha basal area is required for Karri trees and 14m²/ha basal area is required for Marri and Jarrah trees within the area of clearing authorised under this Permit.
- (d) Prior to undertaking any clearing authorised under this Permit, the Permit Holder must exclude all *stock* from the areas subject to *thinning* activities.
- (e) Within two years of 16 April 2015, the Permit Holder must:
 - (i) engage an *environmental specialist* to determine the species composition, structure and density of the *understorey* of areas subject to *thinning*; and
 - (ii) where, in the opinion of an *environmental specialist*, there is evidence that *understorey* will not recover and develop towards its pre-clearing composition, structure and density determined under condition 9(e) (i), the Permit Holder must undertake *remedial action* at an *optimal time* within the next 12 months to ensure re-establishment of *understorey* prior to expiry of this Permit.

PART III - RECORD KEEPING AND REPORTING

10. 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 vegetation management pursuant to condition 9 of this Permit:
 - (i) prior to clearing native vegetation authorised under this Permit, the species composition, structure and density of *understorey*;
 - (ii) the species and number per hectare of habitat trees retained;
 - (iii) the location of *habitat trees* retained, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
 - (iv) monitoring undertaken to ensure that the specified minimum basal area is retained;
 - (v) number of log landings established;
 - (vi) the location of *log landings*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
 - (vii) photographs of the *understorey* taken at one year, two years and three years after completing clearing authorised under this Permit; and
 - (viii) a detailed description of the nature and extent of any remedial actions undertaken.

11. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 10 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 16 February 2019, the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(a) of this Permit.

DEFINITIONS

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

basal area is the method of expression of tree cover density in an area where the total area of tree trunk, whose diameter is measured at 1.5m above the ground, is expressed as square metres per hectares of land area;

culled/ing means the selective removal and/or killing of unsaleable trees for thinning, using methods including notching, felling or machine pushing;

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;

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

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

habitat tree(s) means trees that have a diameter, at average adult human chest height, of greater than 70cm, healthy but with dead limbs and broken crowns that are likely to contain hollows and roosts suitable for native fauna, or where these are not present then healthy but with the potential to contain hollows and roosts;

local provenance means native vegetation seeds and propagating material from natural sources within 50 kilometres of the area cleared.

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;

optimal time means the period from April to June for undertaking direct seeding, and the period from May to July for undertaking planting;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing *mulch*;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

remedial action/s means for the purpose of this Permit, any activity that is required to ensure successful re-establishment of *understorey* to its pre-clearing composition, structure and density, and may include a combination of soil treatments and *revegetation*.

revegetate/ed/ion means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural regeneration, direct seeding and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

stock means the horses, cattle, sheep, pigs and other non-indigenous grazing animals kept or bred on a property;

thinned/ing describes a silvicultural activity to promote the growth of selected trees by removing competing trees;

understorey means, for the purpose of this Permit, all native vegetation that does not include trees to be culled or subject to harvest.

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

21 April 2011

CPS 4253/1, 21 April 2011

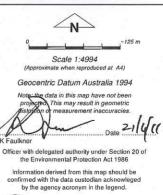
Plan 4253/1





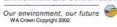
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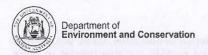
Areas Approved to Clear
Manjimup 50cm Orthomosaic Landgate 2007





Department of Environment and Conservation





Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.:

4253/1

Permit type:

Purpose Permit

1.2. Proponent details

Proponent's name:

Michela Drake

1.3. Property details

Property:

LOT 10 ON DIAGRAM 98580 (MIDDLESEX 6258)

Local Government Area:

Colloquial name:

1.4. Application

Clearing Area (ha)

No. Trees

Method of Clearing

For the purpose of:

Mechanical Removal

Timber Harvesting

1.5. Decision on application

Decision on Permit Application:

Grant

Decision Date:

21 April 2011

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description Shepherd (2009) describes Beard vegetation 1144 as Tall forest; karri & marri (Corymbia calophylla).

Mattiske Veg association

– CRy: Tall open forest of
Corymbia calophylla with
mixture of Eucalyptus
marginata subsp.
marginata and Eucalyptus
diversicolor on uplands in
hyperhumid and perhumid
zones.

Mattiske Veg association – PM1: Tall open forest of Eucalyptus diversicolor with mixtures of Corymbia calophylla on valley slopes and low forest of Agonis juniperina-Banksia seminuda-Callistachys lanceolata on valley floors in the perhumid zone.

Clearing Description

The proposal is to clear 8.4 hectares for timber harvesting. The area under application is an open forest dominated by Karri, Marri and Jarrah trees with a mid and under storey comprised of Karri wattle, Hibbertia and Bracken Fern. There is evidence of past logging and grazing activities within the application area (DEC, 2011).

Vegetation Condition

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994) Comment

The condition rating of the application area was established through a site visit conducted by DEC officers on 7 April 2011 (DEC, 2011).

(Mattiske 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 proposed clearing of 8.4 hectares is for timber harvesting. The area under application is an open forest dominated by Karri, Marri and Jarrah trees with a mid and under storey comprised of Karri wattle, Hibbertia and Bracken Fern. There is evidence of past logging and grazing activities within the application area and it is considered to be in 'very good' (Keighery, 1994) condition (DEC, 2011).

Within the local area (10km radius) there is one record of a priority one flora species (*Deyeuxia inaequalis*) that occurs within the same vegetation and soil complexes as the area under application. No priority or rare flora was identified during the site visit (DEC, 2011). There are no known threatened ecological communities within

the local area.

The proposed clearing is in 'very good' (Keighery, 1994) condition with a dense understorey, close proximity to watercourses and has some larger trees with hollows present. This would provide suitable habitat to black cockatoos, chuditch, quenda, western ringtail possums, brush-tailed phascogale and woylie. Given the nature of the clearing there will be some disturbance to this habitat but only in the short term and only to some areas of the forest.

Therefore, it is considered unlikely for the vegetation under application to contain a high level of biological diversity and the proposed thinning is not likely to be at variance to this Principle.

Methodology

References

-DEC (2011)

-Keighery (1994)

GIS Databases

- -SAC Bio Datasets accessed March 2011
- -Mattiske Vegetation (1998)
- -Pre European Vegetation (DA 2001)
- -Current Extent of Native Vegetation (NLWRA 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 may be at variance to this Principle

Twenty conservation significant species were recorded within the local area (10km radius) including Calyptorhynchus baudinii (Baudini's black cockatoo), Calyptorhynchus banksii subsp. Naso (Forest Red-tailed black cockatoo), Calyptorhynchus latirostris (Carnaby's black cockatoo), Isoodon obesulus (Quenda), Cacatua pastinator subsp. pastinator (Muir's Corella), Botaurus poiciloptilus (Australasian Bittern), Macropus irma (Western Brush Wallaby), Bettongia penicillata subsp. ogilbyi (Woylie), Dasyurus geoffroii (Chuditch), Phascogale tapoatafa subsp. ssp. (WAM M434) (Brush-tailed phascogale) and Setonix brachyurus (Quokka).

The proposed clearing is in 'very good' (Keighery, 1994) condition with a dense understorey, close proximity to watercourses and has some larger trees with hollows present (DEC, 2011). This would provide suitable habitat to numerous fauna species including black cockatoos, chuditch, quenda, western ringtail possums, brush-tailed phascogale and woylies.

Given the nature of the clearing there will be some disturbance to this habitat but only in the short term and only to some areas of the forest. The area proposed to be cleared is well vegetated and surrounded by state forest and national parks which are likely to be providing some habitat. Additionally, the Forest Management Plan advises that potential habitat trees will be retained at the rate of two per hectare.

Given the above, the clearing as proposed may be at variance to this Principle.

Methodology

References

-DEC (2011)

-Keighery (1994)

GIS Databases

- -SAC Bio Datasets accessed March 2011
- -Hydrography linear
- -Mattiske Vegetation (1998)
- -Pre European Vegetation (DA 2001)

(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 in the local area (10 km radius). None of the rare species occur in the same vegetation complex and soil types as that under application and no rare species were observed during the DEC site visit. Therefore the proposal is not likely to be at variance to this principle.

Methodology

GIS Databases

- -SAC Bio Datasets accessed March 2011
- -Soils, Statewide DA 11/99
- -Mattiske Vegetation (1998)
- -Pre European Vegetation (DA 2001)

(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 were no records of threatened ecological communities recorded within the local area (10km radius) of the area under application.

Given this the proposal is not likely to be at variance to this principle.

Methodology

GIS Databases

-SAC Bio Datasets - accessed March 2011

(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 local area (10 km radius) is well vegetated with approximately 60% of vegetation remaining. Clearing of selective Karri, Marri and Jarrah trees within an 8.4 hectare area is unlikely to be at variance to this principle.

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pediatric de la construct la construct la construct la construction de	Land				
IBRA Bioregions* Warren		833 981	667 164	80.0	82.5
Shire*					
Manjimup		697 370	589 248	84.5	92.3
Mattiske Vegetation Compl	ex**				
CRy		33 764	25 111	74.4	67.4
PM1		25 801	17 372	67.3	59.0
Beard Vegetation Associati	on*				
1144	ngana et spaden.	160 314	127 380	79.5	90.8
Beard Vegetation Associati	on with Bioregion'			future peros	
1144		159 668	127 144	79.6	90.8

^{* (}Shepherd, D.P. 2009)

Methodology

References:

Mattiske Consulting (1998)

Shepherd (2009) GIS Databases:

- Pre European Vegetation

- Mattiske Vegetation (01/03/1998)

- NLWRA, Current Extent of Native Vegetation

(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 numerous minor perennial watercourses within the local area (10km radius) with the closest being 50m to the south west of the application area. There are no mapped wetlands within the local area. Given that there is a 50m buffer from the application area to the nearest watercourse it is considered that the proposed clearing is not likely to be at variance to this Principle.

Methodology

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

Mapped soil type Tc6 is described as Dissected lateritic plateau of hilly relief at moderate elevation: chief soils of the dissected hilly areas are hard acidic yellow mottled soils with some hard acidic red mottled soils and

^{** (}Mattiske Consulting 1998)

brown earths, all containing ironstone gravels (Northcote, 1960-68).

Topography ranges form AHD 260 to 240 over the application area indicating a low relief and it is unlikely that erosion will increase due to the proposed clearing as the 8.4 hectares is to be selectively cleared (i.e. not clear felled).

Given the proposed clearing is for thinning, the proposal is not considered likely to cause appreciable land degradation and therefore is not likely to be at variance to this clearing principle.

Methodology

References:

Northcote et al. (1960-68)

DEC (2011) GIS Databases

- -Topographic Contours, Statewide DOLA 12/09/02
- -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 may be at variance to this Principle

The local area (10km radius) is largely comprised of state forest (Donnelly, Tone and Jarnadup). Smith Brook and Faunadale Nature Reserve are located 7km SE and 5km NW, respectively. Also an unnamed timber reserve is located adjacent to the area under application to the east and there are 6 other timber reserves within a 10km radius.

The proposed clearing may indirectly impact on the environmental values of the adjoining conservation reserves through the spread or introduction of weed species or dieback by machinery. The consequences associated with the spread of such exotic species into areas reserved for conservation, include the significant degradation of the reserve and the potential local extinction of species.

Given the indirect impact through the spread of weeds and dieback; it is considered likely that the clearing as proposed may impact on the environmental values of nearby conservation areas. Therefore, the clearing as proposed may be at variance to this Principle.

Weed and dieback management would mitigate any impacts to surrounding conservation areas from the proposed clearing

Methodology

GIS Databases

-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 is not likely to be at variance to this Principle

The application area falls within the unassigned Public Drinking Water Source area of 'Warren River Water Reserve' and the 'Warren River Water Reserve' a zone C area covered by the Country Areas Water Supply Act, 1947. Groundwater salinity is mapped as 500-1000 mgL (medium).

DOW advise that zone C is a moderate risk part of the catchment and the timber harvest works be subject a Forest Management Plan, retention of a basal area at least a 10m2 over the area, exclusion of riparian areas and buffers and exclusion of grazing by livestock from the area (DOW, 2011). The proponent has submitted a Forest Management Plan which meets the above criteria.

Methodology

References:

DOW (2011)

GIS database:

- -Hydrography linear,
- -Topographic Contours, Statewide DOLA 12/09/02
- -Hydrographic catchments, catchments DoW 01/06/07
- -Groundwater Salinity

(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

Flooding is unlikely to be an issue given topography on site and clearing within the application area is for the purpose of silviculture which does not result in removal of all vegetation (ie will not be clear felled). Given this the proposed clearing is not likely to be at variance to this Principle.

Methodology

GIS database:

-Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The area under application is zoned Rural in the Town Planning Scheme.

Vegetation management conditions have been added to the permit to restore the understorey disturbed by the silviculture operations, retain mature trees and a set basal area for habitat and exclude stock to ensure the remaining vegetation can continue to function due to the disturbance and will recover in the future. These conditions are consistent with DEC Sustainable Forest Management (DEC, 2005)

A Commercial Producers Licence has been applied for but not yet granted for this proposal.

No public submissions were received regarding this application.

DOW has advised that there are no records of compensation having been paid to retain native vegetation on Lot 10.

The Shire of Manjimup (2011) requested that, in any approval granted by DEC, the following footnote be included: "The applicant is advised to confer with the Shire of Manjimup with respect to the need to comply as relevant with all requirements to its Town Planning Scheme, local laws and legislation relating to the movement of heavy vehicles and the repair of road damage resultant from the use of those vehicles".

Methodology

References:

DEC (2005) DOW (2011)

Shire of Manjimup (2011)

GIS Databases

-Town Planning Schemes

4. References

DEC (2011) Site Inspection Report for Clearing Permit Application CPS 4253/1, Lot 10 on Plan 98580, Middlesex. Site Inspection undertaken 7/04/2011. Department of Environment and Conservation, Western Australia. (DEC Ref: A386700)

Department of Environment and Conservation (2005) Silvicultural Practice in the Karri Forest. Department of Conservation and Land Management. SFM Guideline No.3

Department of Water (2011). Country Area Water Supply Advice. DEC Ref: A385867

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. (2009) 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 Manjimup (2011) Direct interest submission for CPS 4252/1. Received 24/03/2011. DEC Ref: A382270

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)