

CLEARING PERMIT Granted under section 51E of the Environmental Protection Act 1986

Purpose permit number:

CPS 2588/3

Permit holder:

Maurice Lyster

Duration of permit:

11 October 2008 - 11 October 2016

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 up to 127 hectares for the purpose of thinning Karri (*Eucalyptus diversicolor*) Jarrah (*Eucalyptus marginata*) and Marri (*Corymbia calophylla*) forest and up to 4 hectares for the purpose of constructing an orchard.

2. Land on which clearing is to be done

LOT 2 on PLAN 8940 LOT 50 on DIAGRAM 8961

3. Area of Clearing

- (a) The Permit Holder must not clear more than 127 hectares of native vegetation for the purpose of thinning within the areas hatched yellow on attached Plan 2588/3.
- (b) The Permit Holder must not clear more than 4 hectares of native vegetation for the purpose of creating an orchard within the areas solid filled yellow on attached Plan 2588/3.

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. 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

6. Type of clearing authorised

- (a) The Permit Holder may undertake the following activities:
 - (ii) clearing of *understorey* within the areas cross-hatched yellow on Plan 2588/3;
 - (iii) thinning of Karri (Eucalyptus diversicolor), Jarrah (Eucalyptus marginata) and Marri (Corymbia calophylla) trees;
 - (iv) culling of unsaleable trees;
 - (v) burning of cleared *understorey* and *culled* trees; and
 - (vi) clearing of up to 4 hectares for the purpose of creating an orchard.

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(b) Clearing authorised under this Permit must be completed by 25 October 2012, being four years from the date from which this Permit becomes valid.

7. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared for the purpose of 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 pursuant to 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) ensure that no *dieback* or *weed*-affected soil or other material is brought into the area to be cleared; and
 - (iii) 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. Watercourse 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 2588/3.

10. Vegetation Management

- (a) Prior to clearing of native vegetation authorised under this Permit within areas cross-hatched yellow on Plan 2588/3, 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 each hectare of clearing authorised under this Permit within areas cross-hatched yellow on Plan 2588/3.
- (c) A minimum retention rate of 15m²/ha *basal area* is required within the area authorised under this Permit cross-hatched yellow on Plan 2588/3.
- (d) Prior to clearing of native vegetation authorised under this Permit within areas cross-hatched yellow on Plan 2588/3, the Permit Holder must exclude all *stock* from the areas subject to *thinning* activities.
- (e) Within twelve months of completing clearing of native vegetation authorised under this Permit within areas cross-hatched yellow on Plan 2588/3, the Permit Holder must:
 - (i) 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*, the composition, structure and density determined under condition 10(e)(i) has not resulted in a similar species composition, structure and density of *understorey* to pre-clearing vegetation types in that area, the Permit Holder must undertake *revegetation* in accordance with the requirements of condition 10 of this Permit.

PART III - RECORD KEEPING AND REPORTING

11. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit, as relevant:

- (a) In relation to the clearing of native vegetation undertaken pursuant to 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 Easting's and Northing's;
- (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 10 of this Permit:
 - 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 Easting's and Northing's; and
 - (iv) monitoring undertaken to ensure that the specified minimum basal area is retained.

12. Reporting

- (b) The Permit Holder must provide to the CEO, on or before 31 December of each year, a written report of records required under condition 11 and activities done by the Permit Holder under this Permit between 1 July of the preceding year and 30 June of the current year.
- (c) Prior to 25 July 2016, the Permit Holder must provide to the CEO a written report of records required under condition 11 where these records have not already been provided under condition 12(a).

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, measured at average adult human breast height, 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;

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 trees 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 10-40 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*;

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

regenerate/ed/ion means revegetation that can be established from in situ seed banks contained either within the topsoil or seed-bearing mulch;

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 *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

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

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

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

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;

watercourse has the same meaning as it has in 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 Agriculture and Related Resources Protection Act 1976; and

wetland 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.

Keith Claymore

A /ASSISTANT DIRECTOR

NATURE CONSERVATION DIVISION

Officer delegated under Section 20 of the Environmental Protection Act 1986

11 June 2009

Plan 2588/3





Clearing Instruments

Areas Approved to Clear

Cadastre
Clearing Instruments_1

Areas Approved to Clear

Donnelly 50cm Orthomosaic -Landgate 2004



Scale 1:22036

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

K Claymore

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.



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



Clearing Permit Decision Report

1. Application details

Permit application details

Permit application No.:

2588/3

Permit type:

Purpose Permit

Proponent details

Proponent's name:

Maurice Lyster

1.3. Property details

Property:

LOT 50 ON DIAGRAM 8961 (BEEDELUP 6260) LOT 50 ON DIAGRAM 8961 (BEEDELUP 6260) LOT 2 ON PLAN 8940 (BEEDELUP 6260) LOT 2 ON PLAN 8940 (BEEDELUP 6260)

Local Government Area:

Colloquial name:

Shire Of Manjimup

Application

Clearing Area (ha)

No. Trees

Method of Clearing

For the purpose of:

127

0

Mechanical Removal

Timber Harvesting

Mechanical Removal

Horticulture

Site Information

Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

Vegetation is a mixture of mattiske complexes: WH1: Tall open forest of Eucalyptus diversicolor-Corymbia calophylla on slopes and tall open forest of Eucalyptus patens on valley floor in perhumid and humid zones. CRb: Tall open forest of Corymbia calophylla-Eucalyptus diversicolor on upper slopes with Allocasuarina decussata-Banksia grandis on upper slopes in hyperhumid and perhumid zones. 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. CRy: Tall open forest of Corymbia calophylla with mixture of Eucalyptus marginata subsp. marginata and Eucalyptus diversicolor on uplands in hyperhumid and perhumid zones. The vegetation type within the proposed clearing is Beard 1144: Tall forest; karri & marri (Corymbia calophylla)

Clearing Description

As per a regional site inspection (DEC, 2008) the condition of the entire forest is excellent and healthy with little or no weed invasion. The stands are Karri forest with occasional Marri and Jarrah and associated scrub understorey (Sedges, bracken and ferns). The scrub layer is dense and leaf litter is high. Midstorey includes Karri oak, karri wattle and acacias. Some areas have been previously thinned and some scrub rolling along internal tracks which act as fire breaks.

Vegetation Condition

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

Comment

The condition of the vegetation was determined by a site inspection report (DEC, 2008), the forest management plan (2008) and site photo's.

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 area proposed to be cleared is for the purpose of creating a 4ha orchard and 127ha is for silviculture. The 4ha consists of Karri dominant regrowth with the vegetation in the rest of the application is a dense remnant. The condition of vegetation within the proposed clearing area is very good (Keighery, 1994)

Within the long unburnt areas of forest it is suspected that a Priority Ecological Community exists, which is named 'Epiphytic Cryptogams of the karri forest' and is listed as a P3 community. Given the dynamic nature of the community it is unlikely that selective clearing will significantly impact up on it. Additionally it is likely that the community lives within the creek line areas which are demarcated from clearing in the forest management plan (2008).

The areas of forest that are long unburnt and not been thinned in recent history are likely to have a high level of biodiversity. A site inspection (DEC, 2008) found that there was little to no weed invasion, with dense scrub and numerous herb species.

Given that the clearing is to selectively thin and burn karri and marri trees. As the proposed clearing area is adjacent to national park and state forest, recruitment post clearing should occur. Weed and dieback management conditions will be imposed on the permit.

Methodology DE

DEC (2008)

Keighery (1994)

Forest Management Plan (2008)

GIS Databases:

- CALM Managed Lands and Waters CALM 01/06/05
- Donnelly 50cm Orthomosaic DLI04
- SAC biodatasets accessed 15 August 2008
- (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 proposed clearing is for the selective thinning and burning of Karri (Eucalyptus diversicolor) and the occasional Marri (Corymbia calophylla) and Jarrah (Eucalyptus marginata) trees within a large area (127ha). A site inspection (DEC, 2008) found that the application area consisted of some areas that had been long unburnt and undisturbed in recent history. These areas had a dense scrub layer and substantial leaf litter which would provide habitat for numerous species of native fauna. The 4ha to be cleared for a orchard borders previously cleared areas and consists of Karri dominated regrowth.

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 surrounded by state forest and national parks which are likely to be providing some habitat. Additionally, the Forest Management Plan (2008) advises that potential habitat trees will be retained at the rate of two per hectare.

Methodology

Native Forest Management Plan (2008)

DEC (2008)

SAC biodatasets - accessed 15 August 2008

(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 known records of threatened flora within the local area (10km radius). Vegetation and soil types within the area are common and found in secure tenure. It is unlikely that the proposed clearing area is necessary for the continued existence of threatened flora.

Methodology

GIS Databases:

- Mattiske Vegetation (01/03/1998)
- Soils, Statewide DA 11/99
- SAC Biodatasets accessed 15 August 2008
- (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 Threatened Ecological Communities within the local area (10km radius), therefore, the clearing is unlikely to be at variance to this principle.

Methodology GIS Database:

- SAC biodatasets - accessed 15 August 2008

(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

As represented in the table below, vegetation within the local and regional area is well represented and found within secure tenure.

	Pre-European (ha)	Current extent R (ha)	emaining (%)
IBRA Bioregions* Warren	835,925	675,836	80.85
Shire Manjimup	697,359	595,561	85.40
Mattiske Vegetation Complex***			
WH1	183,280	142,945	78
PM1	258,061	169,317	65.6
CRb	527,433	428,454	81.2
CRy	337,605	236,268	70
Beard Vegetation Complex* (Within Bioregion)			
1144	159,668	131,169	82.15
3	252,196	204,295	81,01
1	69,119	56,119	81.19
(Within Shire)			
1	40,510	38,672	95.46
3	287,390	244,323	85.01
1144	287,390	244,390	85.01

^{*** (}Mattiske Consulting 1998)

Clearing of selective trees of the species Marri (Corymbia calophylla), Karri (Eucalyptus diversicolor) and Jarrah (Eucalyptus marginata), plus the clearing of 4ha of regrowth for an orchard is unlikely to be at variance to this principle.

Methodology

Mattiske Consulting (1998)

Shepherd (2007) GIS Databases:

- Mattiske Vegetation (01/03/1998)

(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

Some of the clearing proposed will be alongside Four Mile Brook, a watercourse running through the property. The clearing is selective removal of Karri (Eucalyptus diversicolor) and the occasional Marri (Corymbia calophylla) and Jarrah trees, however some wet dependent species may also be removed or damaged by the harvesting operations. A forest management plan (2008) demarcates the stream area by 30m, however a buffer of 50m from the watercourse will be imposed on the permit.

Methodology

Forest Management Plan (2008)

GIS Databases:

- 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

Clearing is for the purpose of silviculture so it is unlikely that erosion will increase due to the clearing as 127ha

^{* (}Shepherd et al. 2007)

is proposed to be selectively cleared (ie not clear felled).

The area proposed to be cleared lies within Zone D of the Country Areas Water Supply Act 1947. DoW (2008) advise that this is a low salinity risk area where no salinisation of the water resources will result subject to the retention of at least 10% on the holding area to native veegtation. Therefore, the proposal is unlikely to cause salinity and water logging.

Methodology

Department of Water (2008)

GIS Databases:

- Donnelly 50cm Orthomosaic DLI04
- Groundwater Salinity, Statewide DoW 13/07/06

(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

The area proposed to be cleared is surrounded by conservation land on all boundaries. The purpose is for silviculture and therefore will not result in clear felled land so buffering capacities, fauna corridors and ecological linkages should not be significantly impacted.

Weed and dieback management conditions will be imposed on the permit to prevent the possible transfer of disease into the conservation areas.

Methodology

GIS Databases:

- CALM Managed Lands and Waters CALM 01/06/05
- Donnelly 50cm Orthomosaic DLI04

(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 proposed to be cleared lies within the Warren River catchment area, a public drinking water source area, and within Zone D of the Country Areas Water Supply Act 1947. DoW (2008) advise that this is a low salinity risk area where no salinisation of the water resources will result subject to the retention of at least 10% on the holding area to native vegetation. Therefore, the proposal is unlikely to degrade water quality.

The area receives high rainfall (1200mm), with a high evapotranspiration rate (800mm). Despite the large area applied for clearing (131ha) it is unlikely that groundwater recharge will be affected as the clearing is proposed to be selective over this area.

Some clearing of selected trees is proposed to occur alongside Four Mile Brook, which may have a short term impact on sedimentation and turbidity, however it is unlikely to have a significant effect. Additionally, the Forest Management Plan (2008) for the proposed clearing area advises that streams are demarcated by a 30m buffer, which will assist in reducing sedimentation.

Methodology

Department of Water (2008)

Forest Management Plan (2008)

GIS Databases:

- Public Drinking Water Source Areas (PDWSAs) 07/02/06
- Hydrographic Catchments Catchments DoW 01/06/07
- Evapotranspiration Isopleths WRC 29/09/98
- Rainfall, Mean Annual Isohytes (1975 2003) DEC 02/08/05
- Hyrdrography, linear DOW 13/7/06

(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 nature of the proposed clearing (silviculture) it is unlikely to cause or exacerbate the incidence or intensity of flooding, as the clearing is thinning of Karri and the occasional Jarrah and Marri trees over a large area and a sustained period of time, and regeneration will occur. Therefore, the clearing is not likely to be at variance to this principle.

Methodology

GIS Databases:

- Topographic Contours, Statewide - DOLA 12/9/02

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

Comments

The area proposed to be cleared lies within Zone D of the Country Areas Water Supply Act 1947. A licence

under this Act has been previously granted for the land applied to be cleared. It has expired and as no compensation has been paid, a licence through CAWSA is not required if a clearing permit is granted.

The application was amended due to inaccuracies on the previously granted plan (CPS 2588/2).

Methodology

4. Assessor's comments

Comment

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

- may be at variance to Principles (a) and (f); and
- is not or is not likely to be at variance to the remaining clearing Principles.

5. References

Bradshaw, J (2008) Native Forest Management Plan (Carperter Plantation), unpublished.

DEC (2008) Site Inspection Report for Clearing Permit Application CPS 2588/1, Lot 2 on Plan 8940 and Lot 50 on Diagram 8961, Manjimup. Site inspection undertaken 25/08/2008. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC60997).

Department of Water (2008) Country Areas and Water Supply Advice. Department of Water. DEC TRIM Ref: DOC60126. 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 Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM. 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

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)