



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 5377/1

File Number: 2012/007984-1

Duration of Permit: From 22 February 2013 to 22 February 2023

PERMIT HOLDER

Sylvia Winifred Marsh

LAND ON WHICH CLEARING IS TO BE DONE

Lot 10914 on Deposited Plan 203844 (Smith Brook 6258)

Lot 10920 on Deposited Plan 203844 (Smith Brook 6258)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 38 hectares of native vegetation within the combined areas hatched yellow on attached Plan 5377/1.

CONDITIONS

1. Period in which clearing is authorised

The Permit Holder shall not clear any native vegetation after 22 February 2018.

2. 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.

3. Type of clearing authorised

To the extent authorised under authorised activity of this Permit, the Permit Holder may undertake the following activities within the area cross-hatched yellow on Plan 5377/1:

- (a) clearing and burning of *understorey*;
- (b) *thinning* of Karri (*Eucalyptus diversicolor*) trees; and
- (c) *culling* and burning of unsaleable trees.

4. 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.

5. 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.

6. 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* in each hectare authorised under this Permit, where they exist.
- (c) A minimum retention rate of 16m²/ha *basal area* is required 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) The permit holder shall not clear native vegetation within 30 metres of the *riparian vegetation* of any *watercourse* or *wetland* within and/or adjacent to the area cross-hatched yellow on Plan 5377/1.
- (f) Within two years of 22 February 2018, 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 6(a), 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.

7. 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 6 of this Permit:
 - (i) the species and number per hectare of *habitat trees* retained;
 - (ii) 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;
 - (iii) monitoring undertaken to ensure that the specified minimum *basal area* is retained;
 - (iv) photographs of the *understorey* taken at one year, two years and three years after completing clearing authorised under this Permit;
 - (v) a detailed description of the nature and extent of any *remedial actions* undertaken; and

8. 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 7 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) If no clearing authorised under this Permit was undertaken between 1 July to 30 June of the preceding financial year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 22 November 2022, the Permit Holder must provide to the CEO a written report of record required under condition 7 of this Permit where these records have not already been provided under condition 8(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;

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, measured at 1.5 metres from the base of the tree, of 50 centimetres or greater, that contains or has the potential to develop hollows or roosts suitable for native fauna;

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*;

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*;

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;

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

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

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

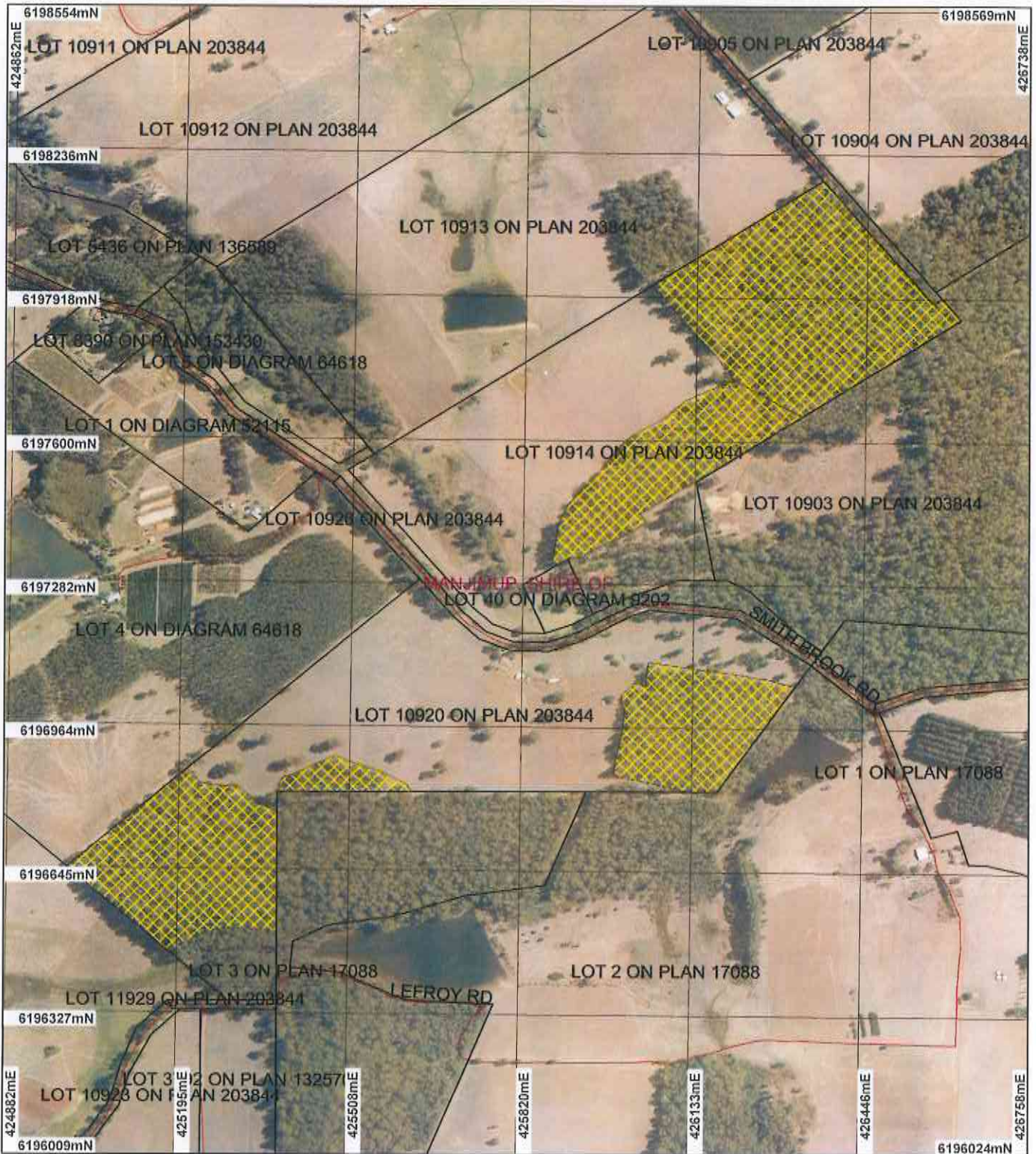


M Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

31 January 2013

Plan 5377/1



LEGEND

- Road Centrelines
- Cadastre_1
- Manjimup 50cm Orthomosaic - Landgate 2007
- Clearing Instruments
- Areas Approved to Clear
- Local Government Authorities

Scale 1:11178
 (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.

M Warnock Date 31.1.13
 M Warnock
 Officer with delegated authority under Section 20 of the Environmental Protection Act 1988

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.

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1. Application details

1.1. Permit application details

Permit application No.: 5377/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Sylvia Winifred Marsh

1.3. Property details

Property: LOT 10920 ON PLAN 203844 (House No. 304 SMITH BROOK SMITH BROOK 6258)
LOT 10914 ON PLAN 203844 (SMITH BROOK 6258)

Local Government Area: Shire of Manjimup
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
38		Mechanical Removal	Timber Harvesting

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 24 January 2013

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
Mapped Beard vegetation association 1144 is described as: Tall forest; karri & marri (Shepherd 2001 et al).	The application is to clear 38 hectares of native vegetation for the purpose of silvicultural thinning.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The clearing description and vegetation condition were ascertained through a site inspection undertaken by the Department of Environment and Conservation on the 20 December 2012 (DEC, 2012).
Mattiske vegetation complex Crb is described as: Tall open forest of <i>Corymbia calophylla</i> - <i>Eucalyptus diversicolor</i> on upper slopes with <i>Allocasuarina decussata</i> - <i>Banksia grandis</i> on upper slopes in hyperhumid and perhumid zones (Mattiske and Havel 1998).	The vegetation under application consists of <i>Eucalyptus diversicolor</i> regrowth with an understorey of <i>Agonis flexuosa</i> , <i>Acacia pentadenia</i> and <i>Trymalium floribundam</i> (DEC, 2012).	To Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	
Mattiske vegetation complex Cry is described as: Tall open forest of <i>Corymbia calophylla</i> with mixture of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> and <i>Eucalyptus diversicolor</i> on uplands in hyperhumid and perhumid zones.			
Mattiske vegetation complex LF is described as: Tall open forest of <i>Eucalyptus diversicolor</i> - <i>Corymbia calophylla</i> on slopes and low woodland of <i>Agonis juniperina</i> - <i>Callistachys lanceolata</i> on lower slopes in hyperhumid and perhumid zones.			
Mattiske vegetation complex WH1 is described as: Tall open forest of <i>Eucalyptus diversicolor</i> - <i>Corymbia calophylla</i> on slopes and tall open forest of <i>Eucalyptus patens</i> on valley floor in perhumid and humid zones (Mattiske and 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 area under application is comprised of 38 hectares of native vegetation in a very good to excellent (Keighery, 1994) condition across three sites (DEC 2012). The vegetation is consistent with *Eucalyptus diversicolor* regrowth containing an *Agonis flexuosa* mid storey (DEC, 2012) and a grazed understorey that is sparse in the central application areas, dense in the southern and moderately dense in the northern un-grazed area (Bradshaw, 2006).

Two priority flora species are mapped within the local area with the closest located five kilometres from the application. As the vegetation under application consists primarily of *Eucalyptus diversicolor* regrowth (DEC, 2012), it does not contain suitable habitat for these species. Therefore, it is unlikely that priority flora are present within the application area.

Twelve fauna species of conservation significance have been mapped within the local area. However, due to the relatively young age of over storey vegetation it is unlikely to contain suitable hollows for threatened fauna species that occur within the local area (10 km radius) (DEC, 2012). In addition, there is greater than 70 percent of native vegetation remaining in the local area (10 km radius) (DEC, 2012) consisting of vegetation containing similar habitat. Therefore, it is unlikely that the application area provides significant habitat for indigenous fauna species.

The vegetation under application consists of vegetation associations that are highly represented within the local area (10km radius).

Given the above and that the application is for selective silvicultural thinning, the application is not likely to be at variance to this Principle.

Methodology

References:

- Keighery (1994)
- DEC (2012)
- Bradshaw (2006)

GIS Databases:

- Manjimup 50cm Orthomosaic Landgate 2007
- SAC Bio Datasets accessed 27 November 2012
- Pre-European vegetation

(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

Twelve fauna species of conservation significance have been recorded within the local area (10 kilometre radius) and include *Calyptorhynchus banksii* subsp. *naso* (Forest Red-tailed Black-Cockatoo), *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus latirostris* (Carnaby's Cockatoo), *Phascogale tapoatafa* subsp. *tapoatafa* (Southern Brush-tailed Phascogale), *Pseudocheirus occidentalis* (Western Ringtail Possum), *Setonix brachyurus* (Quokka) *Cacatua pastinator* subsp. *pastinator* (Western Corella), *Bettongia penicillata* subsp. *ogilbyi* (Woylie), *Dasyurus geoffroyi* (Chuditch) and *Myrmecobius fasciatus* (Numbat) (DEC, 2007-).

The vegetation under application consists of *Eucalyptus diversicolor* regrowth with an understorey of *Agonis flexuosa* in a very good to excellent (Keighery, 1994) condition (DEC, 2012). It is not thought that large trees, capable of containing hollows, are present within the area as it is predominantly regrowth (DEC, 2012).

The application area falls within an area that contains 70 per cent of its pre-European vegetation extent and is surrounded by large conservation reserves which are considered to contain similar habitat as the area under application.

The Forest Management Plan for the proposed thinning proposes a basal area of 16 to 18 metres squared per hectare to be retained including the retention of one habitat trees per hectare (Bradshaw, 2006).

Given the low potential for hollows to be present, retention of habitat trees and extensive fauna habitat located within close proximity to the application area, the application is not likely to be significant habitat for fauna indigenous to Western Australia and is therefore, not likely to be at variance to this clearing principle.

Methodology

References

- DEC (2012)
- DEC (2007-)
- Bradshaw (2006)
- Keighery (1994)

GIS Data Sets:

- Manjimup 50cm Orthomosaic Landgate, 2007

- Existing DEC Managed Lands and Waters, 2011
- NWLRA, Extent of Native Vegetation

(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

The closest known record of rare flora is located 10 kilometres from the proposed clearing, within the same soil and vegetation type as the application area (Northcote et al 1960-68).

This species is found within the margins of winter-wet flats, swamps and freshwater lakes (Western Australian Herbarium 1998-). The area under application consists of Karri forest regrowth (DEC, 2012) and the Native Forest Management Plan states that no harvesting will occur within 30 metres of creek lines and swamps (Bradshaw, 2006). Given this the application does not contain vegetation suitable for this rare flora.

The proposed clearing is not likely to impact on habitat for rare flora species and therefore is not likely to be at variance to this Principle.

Methodology References

- Bradshaw (2006)
 - Western Australian Herbarium (1998-)
 - Northcote et al (1960-68)
 - DEC (2012)
- GIS Data sets:
- SAC Bio Datasets - accessed 27 November 2012
 - Soils, statewide
 - Pre-European Vegetation

(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 closest Threatened Ecological Communities (TEC) is the Scott Ironstone Association located approximately 60 kilometres from the application area, within a coastal environment.

Given the distance to the nearest TEC and its location within a different habitat, the proposed clearing is not likely to be at variance to this clearing principle.

Methodology GIS Data Sets:

- SAC Bio Datasets - accessed 27 November 2012

(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 area under application is located within the Warren Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 80 per cent of its Pre European vegetation extent remaining (Government of Western Australia 2011). The application occurs within the Shire of Manjimup which has approximately 85 percent of its pre- European vegetation extent remaining (Government of Western Australia 2011).

The vegetation under application is mapped as Beard Vegetation Association 1144 which has approximately 79 percent of their Pre European extent remaining in the Warren bioregion (Government of Western Australia 2011). The vegetation under application is also mapped as Matiske Vegetation Complex's CRb, Cry, LF and WH1, which have approximately 80 per cent of their Pre European extents remaining (Matiske and Havel 1980).

Digital imagery (Manjimup 50cm Orthomosaic - Landgate 2007) indicates that the local area (10 km radius) surrounding the area under application retains approximately 70 per cent vegetation cover.

The Beard vegetation association retains more than the threshold level (30 per cent) recommended in the National Objectives Targets for Biodiversity Conservation, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

Given the above, the vegetation under application is not regarded as a significant remnant in an extensively cleared landscape. Therefore, the proposal is not likely to be at variance to this Principle.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Warren	833,982	664,123	79	83

Shire*				
Shire of Manjimup	9,301,396	9,293,632	99	10
Beard Vegetation Association in Bioregion*				
998	250,262	198,873	79	85
	159,668	126,978	79	91
Mattiske Vegetation Complex **				
CRb	52,753	46,468	88	82
WH1	18,325	14,864	81	72
LF	20,125	16,811	83	74
CRy	33,764	25,111	74	67
* Government of Western Australia (2011)				
** Shepherd (2007)				

Methodology Reference:

- Government of Western Australia (2011)
- Commonwealth of Australia (2001)
- Mattiske and Havel (1980)
- Shepherd (2007)

GIS Data sets:

- Interim Biogeographic Regionalisation for Western Australia (IBRA), 2004
- Local Government Authority Boundaries,
- Manjimup 50cm Orthomosaic - Landgate 2007
- Pre-European vegetation,
- 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**

The application area falls 30 metres from a perennial tributary of the Smith brook, this is consistent with the Forest Management Plan (Bradshaw, 2006) states that a 30 metre stream buffer from the stream will be demarcated.

As no riparian vegetation was identified and clearing will not take place within 30 metres of a watercourse, the application is not likely to be at variance to this clearing principle.

Methodology References

- Bradshaw (2006)
- DEC (2012)

GIS Data Sets:

- Hydrography, Linear, 2006

(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 area under application is mapped as soil type Tc6 which 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 (Dy3.61), (Dy3.71), and (Dy3.81) with some hard acidic red mottled soils (Dr3.21) and brown earths (Gn2.45), all containing ironstone gravels; some (Um5.2) soils on major stream terraces (Northcote et al 1960-8).

The application is for silvicultural thinning and the proponent has committed to retaining a minimum basal area of 16 to 18 metres squared per hectare (Bradshaw, 2012). Given the proposed clearing is for thinning and not broad scale clearing, the proposal is not considered likely to cause appreciable land degradation and is therefore, not likely to be at variance to this clearing principle.

Methodology References:

- Northcote et al (1960-8)
- Bradshaw (2006)

GIS Database:

- 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 application area lies one kilometer from the tone state forest, 800 metres from the warren State forest and

adjacent to Department of Environment and Conservation managed freehold land.

As the clearing proposed is for silvicultural thinning it is unlikely that it will sever any ecological linkages through these conservation areas.

The Forest Management Plan (Bradshaw, 2006) states that all Harvesting machinery must be cleaned before entering the property and harvesting should preferably be conducted during dry soil conditions. These measures may aid in preventing weeds and dieback from spreading into the reserves.

Although management measures are outlined, the proposed clearing may introduce or facilitate the spread of weeds and dieback within the adjacent conservation areas. Therefore, the proposed clearing may be at variance to this principle. Weed and dieback management conditions would mitigate this potential impact.

Methodology **References**
- Existing DEC Managed Lands and Waters, 2011

(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 'Warren River Water Reserve', and zone C of the 'Warren River Water Reserve catchment area covered by the Country Areas Water Supply Act, 1947.

The application area is located in Zone C a moderate salinity risk part of the catchment, where DoW (2013) advise timber harvest works be subject to a Forest Management Plan, retention of a basal area of at least 10 metres squared over the area, exclusion of riparian areas and associated buffers and exclusion of grazing by livestock from the area (DOW, 2013). The proponent has submitted a Forest Management Plan (Bradshaw, 2006) which meets much of the above criteria, except to that relating to grazing. Vegetation management practices will help mitigate this impact.

Given the above the application is not likely to be at variance to this clearing principle.

Methodology **Reference:**
- DoW (2012)
- Bradshaw (2006)
GIS Data sets:
- Hydrology, linear

(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 application is for silvicultural thinning and a minimum basal area of 16 to 18 meters squared per hectare will be maintained (Bradshaw, 2006), the proposal is not likely to cause or exacerbate the incidence or intensity of flooding.

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

Methodology **References:**
- Bradshaw (2006)
GIS Data bases:
- Hydrography, Linear, 2006

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

Comments

A Commercial Producer's licence under the Wildlife Conservation Act 1950 from DEC is required for the purpose of selling harvested logs.

The application area falls within the Warren River and Tributaries Surface Water Area under the Rights in Water Irrigation Act 1914. Department of Water (2013a) advised that a minimum of 30 metres buffer to the mapped water course within the application area should be imposed to prevent sedimentation and erosion of the watercourse bank. In addition, the applicant has indicated that crossings would be constructed where it is necessary to cross creeks during silviculture activities. Department of Water does not support this activity and advises that a bed and banks permit will be required if creek crossings are to be implemented (Dow 2013a).

The proposed clearing site lies within Warren River Water Reserve gazetted under the Country Areas Water Supply Act 1947 (CAWS Act) (DoW, 2013). The lot is not currently located in a Public Drinking Water Source Area hence no priority source protection has been assigned or is proposed. The application area is located in

Zone C a medium salinity risk part of the catchment, where the DoW (2013) advise timber harvest works be subject to a Forest Management Plan, retention of a basal area of at least 10 metres squared over the area, exclusion of riparian areas and associated buffers and exclusion of grazing by livestock from the area (DOW, 2013).

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 public submission was received on the grounds that large old trees will be removed. The concerns raised have been addressed in principle (b).

Methodology References:
- DEC (2005)
- DoW (2013)
- DoW (2013a)
- Shire of Manjimup (2012)

4. References

- Bradshaw, F.J. (2006) Native Forest Management Plan, Sylvia Marsh. February 2006. Western Australia. (DEC Ref:A569625)
- DEC (2005) Silvicultural Practice in the Karri Forest. Department of Environment and Conservation. SFM Guideline No.3
- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 20/9/2012
- DEC (2012) Regional Advice Report Clearing Permit Application CPS 5377/1. Department of Environment and Conservation. Warren Region. Western Australia. (DEC Ref: A584509)
- DoW (2013) Advice for Clearing Permit CPS 5377/1 S. Marsh, Lot 10904 on Deposited Plan 203844. Department of Water Western Australia. (DEC Ref: A5943137)
- DoW (2013a) RIWI Act Advice for Clearing Permit CPS 5377/1 S. Marsh, Lot 10904 on Deposited Plan 203844. Department of Water Western Australia. (DEC Ref: A593137)
- 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.
- 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., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

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)