



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3986/1
Permit Holder:	Julian Bryan Sharp
Duration of Permit:	4 December 2010– 4 December 2017

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of silviculture.

2. Land on which clearing is to be done

Lot 8182 on Plan 201591

3. Area of Clearing

The Permit Holder must not clear more than 2.82 hectares of native vegetation within the area hatched yellow on attached Plan 3986/1.

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(s) cross-hatched yellow on Plan 3986/1:

(a) The Permit Holder may undertake the following activities:

- (i) clearing and burning of *understorey*;
- (ii) *thinning* of Jarrah (*Eucalyptus marginata*) trees;
- (iii) Karri (*Eucalyptus diversicolor*) trees; and
- (iv) *culling* and burning of unsaleable trees;

(b) The Permit Holder shall not clear any native vegetation after 4 December 2014.

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

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 on Plan 3986/1.

10. 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 20m²/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) Within two years of completing clearing of native vegetation authorised under this Permit, 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*, there is evidence that *understorey* will not recover and develop towards its pre-clearing composition, structure and density determined under condition 10(f)(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

11. 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 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 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 10 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 a detailed description of the nature and extent of any *remedial actions* undertaken.

12. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 11 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.

- (b) Prior to 4 September 2015, the Permit Holder must provide to the CEO a written report of records required under condition 11 of this Permit where these records have not already been provided under condition 12(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 10 kilometres of the area cleared.

log landing/s means an area established for the purpose of stockpiling commercially harvested trees, to enable loading for collection;

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;

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*;

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*.

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.

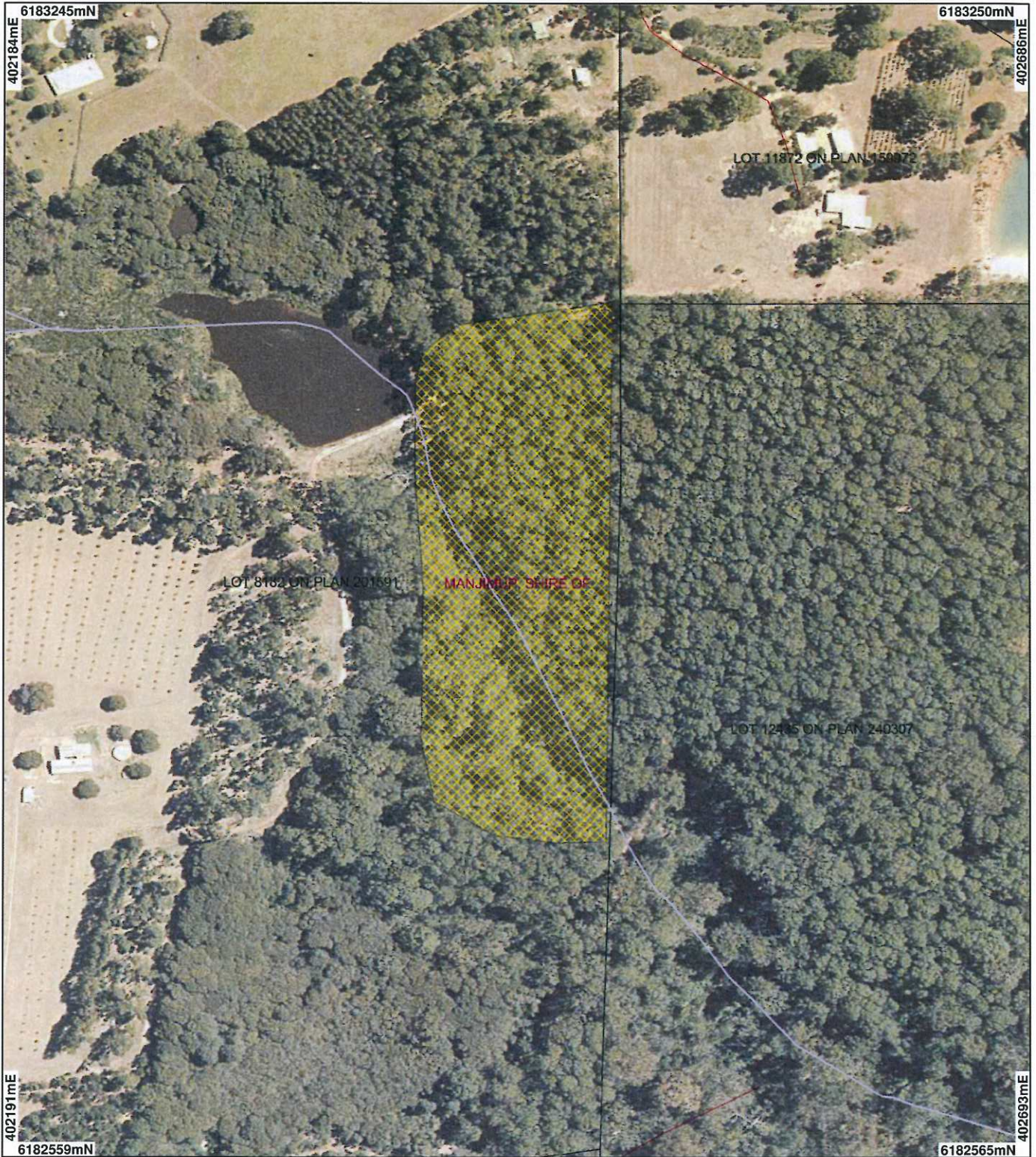


Matthew Warnock
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

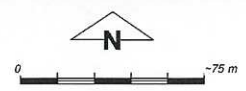
4 November 2010

Plan 3986/1



LEGEND

- Road Centrelines
- Local Government Authorities
- Clearing Instruments
- Areas Approved to Clear
- Cadastre for labelling
- Hydrography, linear
- Watercourse - minor, perennial
- Donnelly 50cm Orthomosaic - Landgate 2007



Scale 1:3000
(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 4/11/10
M Warnock

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.



Department of Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 3986/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Julian Bryan Sharp

1.3. Property details

Property: LOT 8182 ON PLAN 201591 (YEAGARUP 6260)
 Local Government Area:
 Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.82		Cutting	Timber Harvesting

1.5. Decision on application

Decision on Permit Application: Grant
 Decision Date: 4 November 2010

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
Shepherd (2009) describes vegetation association 1144 as Tall forest; karri & marri (<i>Corymbia calophylla</i>)	The dominant species is Karri with a middle storey of <i>Trymalium floribundum</i> .	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	There is evidence of previous disturbance from thinning. tree height is 40m with no tree diameters over 70cm basal area is between 24-30m square (DEC 2010)

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 at variance to this Principle

The proposed clearing of 2.82ha of native vegetation is for silviculture. The proposed clearing is to occur over Lot 8182 on Plan 201591, Yeagarup in the Shire of Manjimup.

The vegetation under application is in very good (Keighery 1994) condition (DEC 2010). The area under application contains regenerated Karri with an understorey of *Trymalium floribundum* and has a history of thinning (DEC 2010). Currently, there are no trees of suitable size for habitat trees (DEC 2010). The surrounding vegetation is in similar or better condition and therefore has a higher habitat value for flora and fauna.

Within the local area (10km radius) there are nine fauna species of conservation significance recorded and nine priority flora species recorded. Some of these flora and fauna species may occur within the area under application, however given the extent of remaining vegetation within the local area (97%) the proposed clearing is not likely to impact on local fauna populations or flora of conservation significance.

Given the history of disturbance and limited habitat value, the 2.82 ha of vegetation under application is not considered to comprise a locally high level of biological diversity. Therefore, the clearing as proposed is considered not at variance to this Principle.

There are 9 different priority flora species recorded within the local area, three are priority 1 flora species. The closest priority species were *Asplenium aethiopicum* (P4) and *Rorippa cygnorum* (P2). A majority of these species occur within the similar soil and vegetation types as the application area. The limited records of flora and fauna within the local area are most likely to be due to a lack of information.

The vegetation under application is in very good (Keighery 1994) condition (DEC 2010). The area under application contains regenerated Karri with an understorey of *Trymalium floribundum* and has a history of thinning (DEC 2010). Currently, there are no trees of suitable size for habitat trees and surrounding vegetation

is in similar or better condition and therefore has a higher habitat value.

Given the history of disturbance and limited habitat value, the 2.82 ha of vegetation under application is not considered to comprise a locally high level of biological diversity. Therefore, the clearing as proposed is considered not likely to be at variance to this Principle.

Methodology References
DEC (2010)
Keighery (1994)
GIS databases
- Sac Biodatasets - accessed October 2010
- Donnelly 50cm Orthomosaic - Landgate 2007

(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*) trees within a 2.82ha area. This area is an even aged regrowth stand, with tree height approximately 40m (DEC 2010). There are no trees with a diameter over 70cm that would meet 'primary habitat criteria' (DEC 2010), however trees that would be retained have the potential to grow into primary habitat trees.

Nine conservation significant species were recorded in the local area (~10km radius) of the area under application. The Carpet Python (*Morelia spilota imbricata*), was recorded 3km south of the applied area. There were also seven records of the Quokka (*Setonix brachyurus*); the closest was recorded 3.7 km south of the application area.

Quokkas and Bandicoots may occur in the neighbouring DEC managed land; however, during a site inspection no evidence of these animals or any tree hollows were observed (DEC 2010). There is a possibility of quokkas in the creek system; however this area will not be disturbed. As the vegetation is regrowth and has been subjected to historical disturbances from thinning, the number of mature habitat trees is limited (DEC 2010).

The local area is well vegetated, with approximately 97% native vegetation remaining including large areas of state forest and national parks. These areas are likely to be providing fauna habitat of greater local significance than the vegetation under application. Therefore, the clearing as proposed is considered not likely to be at variance to this Principle

Methodology References
-DEC (2010)
-Keighery (1994)
GIS Databases
-SAC Bio Datasets - accessed October 2010

(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 were only two records of rare flora species recorded in the local area (10 km radius) including *Caladenia harringtoniae*, which was recorded 9km north west on the same soil type but a different vegetation type as the application area. The application area does not exhibit the characteristics of these floras preferred habitat and is not likely to support a population of this DRF.

The local area is well vegetated, with approximately 97% native vegetation remaining including large areas of state forest and national parks. These areas are likely to be providing habitat of greater local significance than the vegetation under application.

Therefore, it is not considered likely that clearing as proposed is at variance to this Principle

Methodology GIS Databases
-SAC Bio Datasets - accessed October 2010

(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 October 2010

(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 at variance to this Principle

The vegetation within the areas under application is identified as a component of Beard vegetation type 1144, of which there is 79.63% of Pre-European extent remaining within the Warren Bioregion (Shepherd, 2009); and Mattiske vegetation types Crowea and Pemberton, of which there is 74.37% and 67.33% of Pre-European extent remaining, respectively (Mattiske and Havel, 1998).

The Environmental Protection Authority (EPA) supports a 30% threshold level as 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). The vegetation associations under application retain more than this 30% threshold level.

Given the current representation levels of the Beard and Mattiske vegetation types and the extensive area of remnant vegetation remaining in the local area (97%), it is not considered likely that the vegetation under application is significant as a remnant. Therefore, the clearing proposal is not at variance to this Principle.

	Pre-European (ha)	Current extent (%)	Remaining	(ha)
IBRA Bioregions*				
Warren	833 981.98	667 164.84	80	
Shire*				
Busselton	146 478.84	62 783.45	42.86	
Beard Vegetation Association*				
1144	160 314.84	127 380.74	79.46	
Beard Vegetation Association within Bioregion*				
1144	159 668.36	127 144.20	79.63	
Mattiske Vegetation Complex				
Pemberton (Pm1)	25 801.15	17 372.58	67.33	
Mattiske Vegetation Complex				
Crowea (CrY)	33 764.36	25 111.89	74.37	

* (Shepherd et al. 2009)

** (Mattiske and Havel, 1998)

Methodology References:
 - Commonwealth of Australia (2001)
 - Mattiske and Havel (1998)
 - Shepherd (2009)
 GIS Databases:
 - Pre European Vegetation
 - NLWRA, Current Extent of Native Vegetation
 - SAC Bio Datasets -accessed October 2010

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments Proposal is at variance to this Principle

A minor perennial watercourse, a tributary of Warren River, runs through the area under application. Therefore, the vegetation under application does support native riparian vegetation and as such the proposed clearing is at variance with this Principle.

The retention of a 30 metre vegetated buffer would mitigate impacts on the watercourse and ensure adequate protection of riparian vegetation.

Methodology GIS Databases:
 - Hydrography, linear
 - Rivers

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments Proposal is not at variance to this Principle

It is unlikely that erosion will increase due to the proposed clearing as the 2.82ha 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 at variance to this clearing principle.

Methodology GIS Databases
-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 area proposed to be cleared is adjacent to Warren National Park (R41338). Within the local area (10km radius) there are also five more conservation areas.

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 conditions will 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

A minor perennial watercourse runs through the area under application.

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 (2010) advise that this is a low salinity risk part of the catchment, where no salinisation of the water resources will result subject to the retention of at least 10% on the holding area to native vegetation. There will be roughly 41.2% of native vegetation remaining on the holding if the Permit application is approved.

The retention of a 30 metre vegetated buffer would mitigate impacts on the watercourse and ensure adequate protection of riparian vegetation.

With the retention of a 30m buffer it is unlikely that the proposed selective thinning of 2.82ha of native vegetation would have appreciable impacts on water quality and the proposed clearing is not likely to be at variance with this Principle.

Methodology DoW (2010)
GIS Databases
-Hydrography linear,
-Topography, statewide
-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 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. Therefore, the clearing is not at variance to this principle.

Methodology GIS Databases:
- Topographic Contours, Statewide

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

Comments

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

The area proposed to be cleared lies within Zone D of the Warren River Water Reserve 'Country Areas Water Supply Act 1947'. A licence under this Act has been previously granted for the land applied to be cleared and no CAWS Act compensation has been paid. The DoW has no objection to the proposed thinning that is located outside the required streamline buffer (DEC 2010). The DoW Policy and Guidelines for the 'Granting of licences to Clear Indigenous Vegetation' provide for the grant of licence subject to the retention of native vegetation on at least 10% of the holding area and subject to the retention of riparian vegetation. There will be still be 41% of native vegetation on the holding if the Permit application is approved (1.6% within the 30m buffer)(DoW 2010).

The Shire of Manjimup (2010) has no specific policies in place regarding the clearing of land. They do request the following footnote to be included on the clearing permit if granted:

"The applicant is advised to confer with the Shire of Manjimup with respect to the need to comply as relevant with all requirements relating 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".

A DEC Commercial Producers Licence remains outstanding for this proposal.

Lot 8182 is freehold land and is zoned rural under the local Town Planning Scheme.

Methodology

DEC (2005)
DoW (2010)
Shire of Manjimup (2010)
GIS Databases
- Town Planning Schemes

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
DEC (2010) Regional Advice Report for CPS 3986/1 (DEC ref: A341821)
DoW (2010) Advice from the Department of Water on CPS 3986 - J.B. Sharpe (DEC ref: A341869)
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.
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.

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)

Vegetation in a wooded area... (mirrored text)

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