



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4858/1
File Number: 2012/000636-1
Duration of Permit: From 23 April 2012 – 23 April 2019

PERMIT HOLDER

Fusion Asset Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 8194 on Deposited Plan 201607 (Yeagarup 6260)

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 26 hectares of native vegetation within the area hatched yellow on attached Plan 4858/1.

CONDITIONS

1. Period in which clearing is authorised

The Permit Holder shall not clear any native vegetation after 23 April 2014

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 4858/1:

- (a) clearing and burning of *understorey*;
- (b) *thinning* of Marri (*Corymbia calophylla*) or Karri (*Eucalyptus diversicolor*) trees; and
- (c) (iii) *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. Fauna management

- (a) Prior to undertaking any clearing authorised under this Permit, the areas shall be inspected by a *fauna specialist* who shall identify *habitat tree(s)* suitable to be utilised as habitat by fauna listed in the *Wildlife Conservation (Specially Protected Fauna) Notice*.
- (b) Prior to undertaking any clearing authorised under this Permit, *habitat tree(s)* identified by condition 6(a) shall be inspected by a *fauna specialist* for the presence of fauna listed in the *Wildlife Conservation (Specially Protected Fauna) Notice*.
- (c) Where fauna are identified in relation to conditions 6(b) of this Permit, the Permit Holder shall ensure that no taking of identified fauna occurs unless approved by the CEO.

7. 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.
- (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 23 April 2017, 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 7(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.

8. 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 fauna management pursuant to condition 6 of this Permit:
 - (i) the location of each habitat tree identified recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (ii) the species name of fauna reasonably likely to utilise, or that have been observed utilising, the habitat/habitat tree(s);
 - (iii) the location and date where relocated fauna was released, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
 - (iv) a copy of the *fauna specialist's* report.
- (c) In relation to vegetation management pursuant to condition 7 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
 - (vi) a copy of the *environmental specialist's* report.

9. 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 8 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 23 January 2019, the Permit Holder must provide to the CEO a written report of record required under condition 8 of this Permit where these records have not already been provided under condition 9(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;

fauna specialist means a person with training and specific work experience in fauna identification or faunal assemblage surveys of Western Australian fauna;

habitat tree(s) means trees that have a diameter, measured at 1.5m above the ground, of 50cm or greater, 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;

Wildlife Conservation (Specially Protected Fauna) Notice means those fauna taxa gazetted as rare fauna pursuant to section 14(4)(a) of the *Wildlife Conservation Act 1950* (as amended).

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*.

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*.

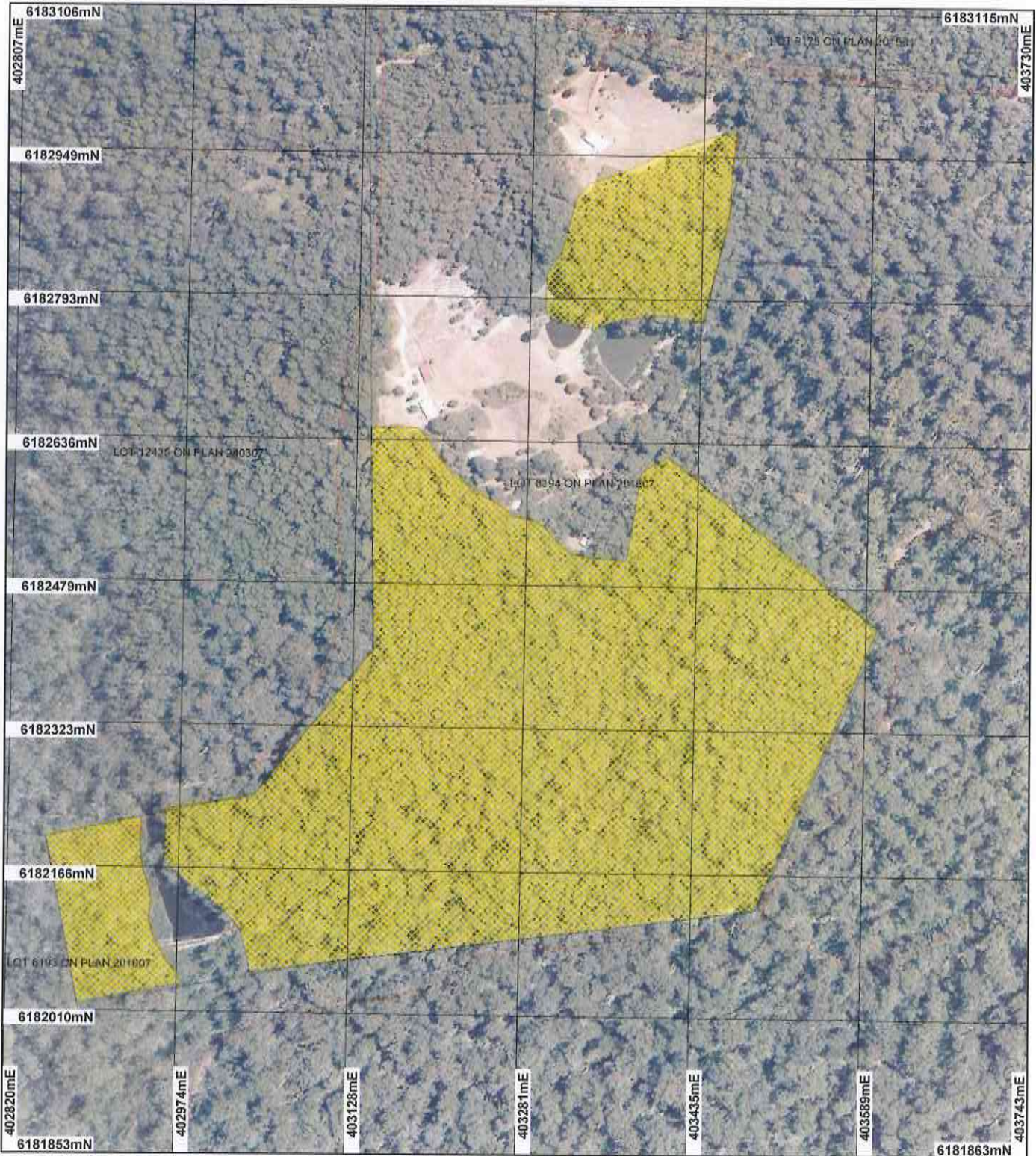


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

29 March 2012

Plan 4858/1



LEGEND

- Road Centrelines
- Clearing Instruments
- Areas Approved to Clear
- Cadastre for labelling
- Donnelly 50cm Orthomosaic - Landgate 2007

Scale 1:5500
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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

..... Date

Kelly Faulkner
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.

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1. Application details

1.1. Permit application details

Permit application No.: 4858/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Fusion Asset Pty Ltd

1.3. Property details

Property: LOT 8194 ON PLAN 201607 (House No. 388 OLD VASSE YEAGARUP 6260)
Local Government Area: Shire of Manjimup
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 29 March 2012

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Two Beard vegetation types are mapped within the applied area:	The application is to selectively thin 26 ha of native vegetation for the purpose of silvicultural thinning.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The condition and the description of the vegetation under application has been determined by aerial imagery (Donnelly 50cm Orthomosaic - Landgate 2007) and supporting information from the applicant (Marissen, 2012).
Mapped Beard vegetation association 1 is described as Tall forest; karri (Eucalyptus diversicolor)	The proposed clearing area is predominately karri with scattered grouped vegetation resulting for earlier ring barking, selective lodging and wildfire (Marissen, 2012).		
Mapped Beard vegetation association 1144 is described as Tall forest; karri & marri (Corymbia calophylla) (Shepherd 2009)			

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments

Proposal is not likely to be at variance to this Principle

The application is to selectively thin 26 hectares of native vegetation for the purpose of silvicultural thinning.

The proposed clearing area is predominately karri with scattered grouped vegetation resulting for earlier ring barking, selective lodging and wildfire (Marissen, 2012).

Seven priority flora species have been recorded within the local area (10km). The closest known record being *Poa billardierei* (priority one) located approximately 1 km south of the application area. The proposed clearing is for selective thinning of Karri species however ground cover may be damaged as a result of the proposed works. If this species is located within the application area it may be inadvertently impacted. However, the proposed clearing will not directly remove this species from the application area and therefore the conservation status of this species should not be impacted.

Numerous fauna species have been recorded within a 20 km radius. As the proposal is for thinning rather than broad scale clearing, the trees retained after thinning will provide habitat in the future. The applicant has also advised habitat trees will be retained at a rate of two per hectare where possible (Marissen, 2012).

The vegetation within the local area (10km) surrounding the application is well represented with approximately 80 percent of its pre-European vegetation remaining.

Given that the local area (10km) has a high level of vegetation remaining and that the application is for silvicultural thinning opposed to broad scale clearing, the proposed clearing is not likely to comprise of a high level of biodiversity, nor is it likely to impact upon the biological diversity of the area. Therefore, the application as proposed is not likely to be at variance to this Principle.

Methodology References:
- Marissen (2012)
- Keighery (1994)

GIS Database:
- Donnelly 50cm Orthomosaic - Landgate 2007
- SAC Bio Datasets 12/1/2012

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments **Proposal is not likely to be at variance to this Principle**
Numerous fauna species which are rare or likely to become extinct under the Wildlife Conservation Act 1950 including; *Bettongia penicillata* subsp. *ogilbyi* (Woylie) *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus latirostris* (Carnaby's black cockatoo), *Galaxiella munda* (Western Mud Minnow), *Nannatherina balstoni* (Balston's Pygmy Perch), *Pseudocheirus occidentalis* (Western Ringtail Possum) and *Setonix brachyurus* (Quokka) have been recorded within the local area (10km radius) (DEC 2007-).

Given the vegetation under application is in a very good (Keighery 1994) condition it is likely the application area will contain a number of habitat trees. The Native Forest Management Plan states that approximately 2 habitat trees per hectare will be retained (Marissen, 2012). Fauna management practices will ensure that habitat trees will be identified and inspected for fauna species where located and that a minimum of 2 habitat trees are retained per hectare.

There is a large amount of native vegetation remaining (approximately 80%) within the local area. Aerial photography indicates that adequate vegetation and associated corridors within the area under application (and adjoining land parcels) will remain post thinning. Therefore, the area under application is not likely to contain significant habitat or be necessary for the maintenance of native fauna.

The proposed clearing is not likely to be at variance to this principle.

Methodology References:
- Marissen (2012)
- DEC (2007-)

GIS Database:
- Donnelly 50cm Orthomosaic - Landgate 2007

(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**
One known record of declared rare flora has been recorded within the local area (10km), *Caladenia harringtoniae*. This species is located approximately 10 km north west of the application area on the same soil and vegetation type.

Caladenia harringtoniae is described as a Tuberous, perennial herb found within in winter-wet flats, margins of lakes, creek lines and granite outcrops (Western Australian Herbarium 1998-) Given the applicant has avoided area's along the two adjacent, minor watercourses it is unlikely this species will be impacted by the proposed clearing.

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

Methodology GIS Database:
- SAC Bio Datasets 16/3/2012

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments **Proposal is not likely to be at variance to this Principle**
There are no known Threatened Ecological Communities located within the local area (10 km).

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

Methodology GIS Database:
- SAC Bio Datasets 16/3/2012

(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 (Shepherd, 2009).

The vegetation under application is mapped as Beard Vegetation Associations 1 and 1144 both of which have approximately 80 per cent of their Pre European extent remaining in the Warren bioregion (Shepherd, 2009).

Digital imagery (Donnelly 50cm Orthomosaic - Landgate 2007) indicates that the local area (10 km radius) surrounding the area under application retains approximately 80 per cent vegetation cover.

Given the vegetation representation within the local area and the type of clearing (thinning) it is unlikely that the vegetation under application is significant as a remnant in an extensively cleared landscape.

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

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion* Warren	833,982	667,165	80	82
Shire* Shire of Manjimup	697,371	589,249	84	92
Beard Vegetation Association in Bioregion*				
1	72,204	58,054	80	81
1144	160,315	127,381	79	91

* Shepherd 2009

Methodology References:
Shepherd (2009)

GIS Database:
-IBRA Australia
- Local Government Authority
- Donnelly 50cm Orthomosaic - Landgate 2007
- Pre-European 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 at variance to this Principle**
Two minor watercourses run between to the proposed clearing areas.

The applicant has avoided areas directly adjacent to the two minor watercourses. Therefore the areas proposed to be cleared are not growing in or in association with, an environment associated with a watercourse or wetland.

Given the above the clearing as proposed is not at variance to this principle.

Methodology GIS Databases:
- Hydrology, 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**
The area under application is mapped as soil type is Uc1. Soil type Uc1 is described as 'Soils Steep hilly to hilly dissected lateritic plateau with steep valley side slopes: chief soils are hard, and also sandy, neutral, and also

acidic, yellow and yellow mottled soils, with conspicuous but relatively smaller areas of red earths'.

The application is for silvicultural thinning and the proponent has committed to retaining a minimum basal area of 20 to 22 meters squared per hectare (Marissen, 2012). Given the proposed clearing is for thinning and not broad scale clearing, the proposal is not considered likely to cause appreciable land degradation.

The application is not likely to be at variance to this principle.

Methodology References:
- Marissen (2012)
- Northcote et al (1960-8)

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 is adjacent to Warren National Park.

As the clearing proposed is for silvicultural thinning it is unlikely that it will sever any ecological linkages. Given the close proximity of the application area to the conservation area there is a likelihood of weed and dieback spreading into these areas from the clearing activities. Weed and dieback management practices will help mitigate this risk.

Therefore, the proposed clearing may be at variance to this principle.

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 not likely to be at variance to this Principle**

Two minor watercourses run adjacent to the proposed clearing area, however the applicant has avoided areas directly adjacent to the watercourses.

The proposed clearing site lies within Warren River Water Reserve gazetted under the Country Areas Water Supply Act 1947 (CAWS Act) (DoW, 2012). The lot is not currently located in a Public Drink Water Source Area hence no priority source protection has been assigned or is proposed. Lot 8194 is located in Zone D a low salinity risk part of the catchment, where DoW Policy and Guidelines for the Granting of Licences to Clear Indigenous Vegetation provide for the grant of a licence for millable timber and silvicultural works subject to conditions (DoW 2012).

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

Methodology Reference:
Dow (2012)

GIS Databases:
- 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 20 to 22 meters squared per hectare will be maintained (Marissen, 2012), the proposal is not likely to cause or exacerbate the incidence or intensity of flooding.

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

Methodology Reference:
-Marissen (2012)

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

Comments

The Shire of Manjimup has advised that there is no planning or other matters which would affect the proposal (Shire of Manjimup, 2012)

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

Application area falls within the Warren River and Tributaries Surface Water Area under the Rights in Water Irrigation Act 1914

The proposed clearing site lies within the 1 September 1978 Country Areas Water Supply Act 1947 (CAWS Act) gazetted Warren River Water Reserve. The lot is not currently located in a Public Drink Water Source Area hence no priority source protection has been assigned or is proposed. Lot 8194 is located in Zone D, a low salinity risk part of the catchment, where DoW Policy and Guidelines for the Granting of Licences to Clear Indigenous Vegetation provide for the grant of a licence for millable timber and silvicultural works subject to conditions set by DoW (DoW 2012).

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, 2004; DEC, 2005)

Methodology

Reference:

DEC (2004)

DEC (2005)

Shire of Manjimup (2012)

4. References

- DEC (2007 -) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: <http://naturemap.dec.wa.gov.au/>. Accessed 16 March 2012
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- DoW (2012) Advice for Clearing Permit CPS 4858/1 - Lot 8194 on Plan 201607. Department of Water. Western Australia. (DEC Ref: A478969)
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Marissen, Lincoln (2012) Native Forest Management Plan - Fusion Assets Pty Ltd. Western Australia. (DEC Ref:A470913)
- 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 (2012) Advice for Clearing Permit CPS 4858/1. Western Australia. (DEC Ref: A479480)
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/>. Accessed 16 March 2012.

5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)