



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 5085/1
File Number: DEC 810-1
Duration of Permit: From 3 August 2012 – 3 August 2019

PERMIT HOLDER

Rodney Anthony Musulin

LAND ON WHICH CLEARING IS TO BE DONE

Lot 10911 on Deposited Plan 203844, Smith Brook

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 9.2 hectares of native vegetation within the area hatched yellow on attached Plan 5085/1.

CONDITIONS

1. Period in which clearing is authorised

The Permit Holder shall not clear any native vegetation after 3 August 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 5085/1:

- (a) clearing and burning of *understorey*;
- (b) *thinning* of Karri (*Eucalyptus diversicolor*) or Marri (*Corymbia calophylla*) 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.
- (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 50metres of the *riparian vegetation* of any *watercourse* or *wetland* within and/or adjacent to the area cross-hatched yellow on Plan 5085/1.
- (f) Within two years of 3 August 2014, 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
 - (vi) a copy of the *environmental specialist's* report.

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) Prior to 3 May 2019, 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;

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;

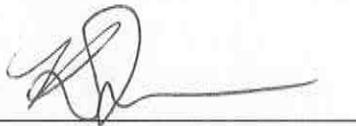
thinned/ing describes a silvicultural activity to promote the growth of selected trees by removing competing trees;

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*;

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.

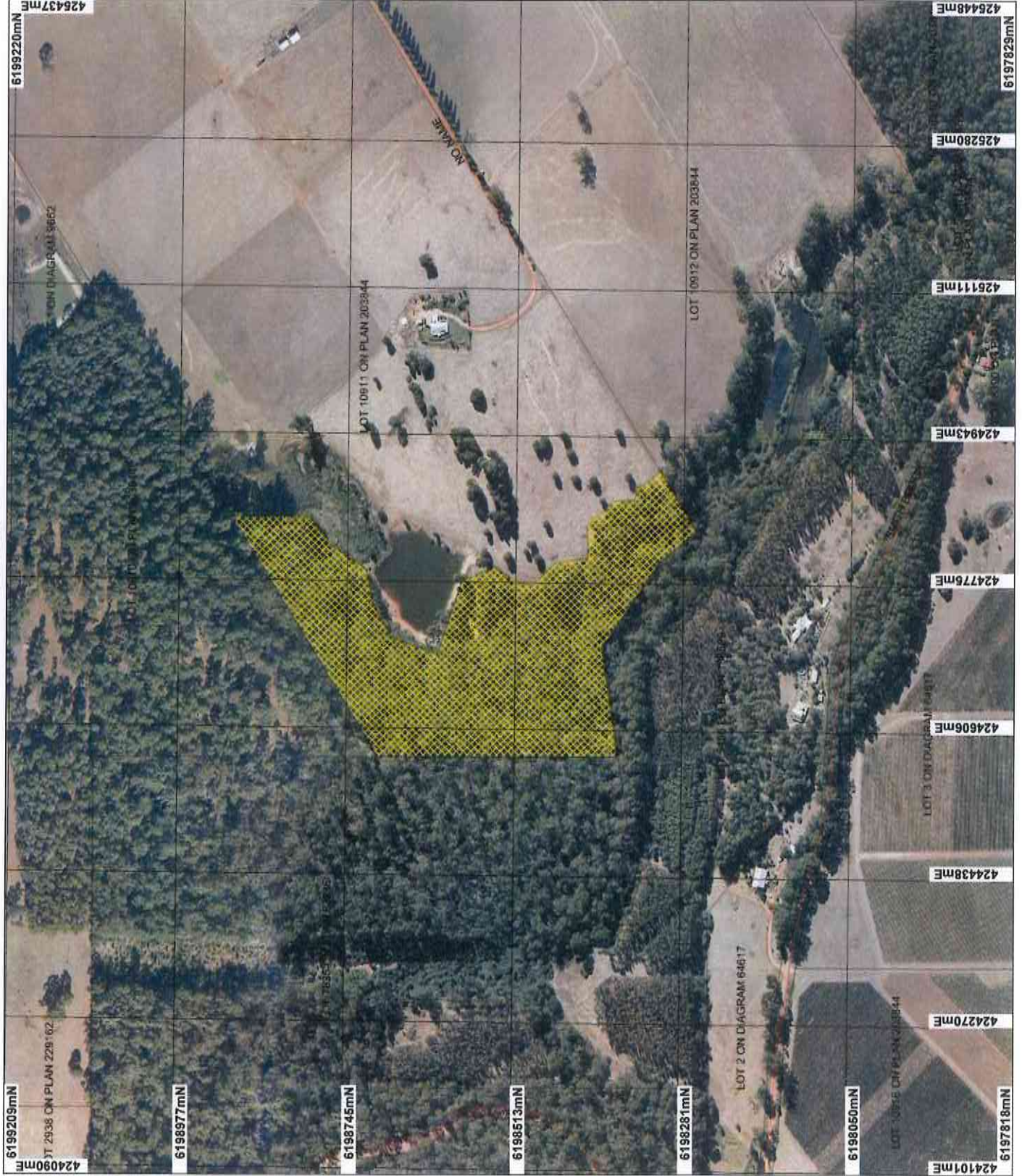


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

12 July 2012

Plan 5085/1



LEGEND

- Freshhold
- Crown Reserve
- State Forest / Timber Res
- Marine Park
- Crown Lease
- Loose / Reserve
- Lease on State Forest / Tr
- Public Roads
- Unallocated Crown Land
- Water
- Road Centrelines
- Clearing Instrument
- Areas Approved to Clear
- Manjimup 50cm Ort 2007

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



Scale 1:6598
 (Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: The data in this map have not been projected. This may result in geometric distortions of measurement inaccuracies.

12/7/12
 Date

K Faulkner

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





1. Application details

1.1. Permit application details

Permit application No.: 5085/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Rodney Anthony Musulin

1.3. Property details

Property: LOT 10911 ON PLAN 203844 (House No. 322 FRANKLIN 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:
9.2		Mechanical Removal	Timber Harvesting

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 12 July 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
<p>The vegetation under application has been mapped as Mattiske vegetation Wheatley Complex (WH1) consisting of 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 (Mattiske and Havel, 1998).</p> <p>Mattiske vegetation Yanmah complex (YN1) is described as a mixture of tall open forest of Eucalyptus diversicolor and tall open forest of Corymbia calophylla-Eucalyptus patens-Eucalyptus marginata subsp. marginata over Agonis flexuosa and Agonis juniperina on valleys in perhumid and humid zones (Mattiske and Havel, 1998).</p> <p>Mapped Beard Vegetation Association 1144 is described as medium woodland consisting of York gum & Salmon gum / Shrublands consisting of Melaleuca thyioides thicket (Shepherd et al, 2001).</p>	<p>This application proposes to clear 9.2ha of native vegetation within Lot 10911 on Deposited Plan 203844, Smith Brook, for the purpose of silviculture thinning.</p> <p>The vegetation primarily consists of Karri regrowth, with groundcover consisting of young Trymalium floribundam that has regenerated following burning.</p>	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>The condition of the vegetation was obtained through a site inspection DEC (2012).</p>

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

This application proposes to clear 9.2ha of native vegetation within Lot 10911 on Deposited Plan 203844, Smith Brook, for the purpose of silviculture thinning. The vegetation consists of Karri and Marri regrowth, with groundcover consisting of young Trymalium floribundam that have regenerated following burning activities 2 years prior (DEC, 2012). The vegetation is in a good (Keighery, 1994) condition.

Three priority flora species have been recorded in the local area (10km radius). The closest known record being Xanthopamelia xanthomelanoides (Priority 2) located approximately 5.1km west of the application area on the same soil and vegetation type. The proposed clearing is for selective thinning of Karri and Marri species with the potential to damage ground cover.

There are no mature trees present in the proposed clearing area and thus there are no primary habitat trees. The Karri regrowth present is too young to have developed hollows, and there is a lack of middle storey present due to burning activities occurring within the last 2 years (DEC, 2012). As this application is for thinning rather than broad scale clearing, the trees retained post thinning will provide habitat in the future.

The local area (10km) surrounding the application has approximately 60 percent of its pre-European vegetation remaining.

Given that the local area (10km) has a high level of vegetation remaining and 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 is not likely to be at variance to this Principle.

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

GIS Databases:
-NLWRA, Current Extent of Native Vegetation
-SAC Biodatasets (Accessed July 2012)
-NatureMap
-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**

Eight conservation significant fauna species have been recorded in the local area (10km radius) including *Calyptorhynchus banksii* subsp. *naso* (Forest Red-tailed Black-Cockatoo), *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus latirostris* (Carnaby's Cockatoo), *Dasyurus geoffroyi* (Chuditch), *Pseudocheirus occidentalis* (Western Ringtail Possum), *Setonix brachyurus* (Quokka) *Westralunio carteri* and *Isodon obesulus* subsp. *fusciventer* (Quenda).

The Karri regrowth present is too young to have developed hollows, and there is a lack of middle storey present due to burning activities occurring within the last 2 years (DEC, 2012). The proposed clearing area lies in close proximity to better condition vegetation remnants in the nearby conservation reserves, which are likely to provide greater habitat values.

The Forest Management Plan (Musulin, 2012) advises that potential habitat trees will be retained at a rate of two trees per hectare, with trees retained post thinning likely to provide future fauna habitat.

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

Methodology References
-DEC (2012)
-Musulin (2012)

GIS Databases:
-NatureMap
-DEC Tenure

(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**

No records of rare flora species occur within the local area (10km radius). The closest rare flora is *Caladenia christineae* which occurs 12.5 km west of the application area on a different soil and vegetation type.

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

Methodology GIS Databases:
-Soils, Statewide
-WaHerbarium (1998-)
-Pre-European Vegetation
-Mattiske 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**
There were no threatened ecological communities recorded within the local area (10km radius).

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

Methodology GIS Databases
-SAC Bio Datasets - accessed July 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 local area (10 km radius) is well vegetated with approximately 60 per cent vegetation remaining.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in DEC Managed Lands (%)
IBRA Bioregion*				
Warren	833,982	664,123	80	83
Shire*				
Manjimup	697,370	589,098	84	92
Beard Vegetation Association in Bioregion*				
1144	159,668	126,979	80	91
Mattiske Vegetation Complex				
Yanmah complex (YN1)	19,512	15,993	82	75
Wheatley complex (WH1)	18,325	14,865	81	73

* Government of Western Australia (2011)

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). The Region, Shire and Vegetation complexes shown above all retain greater than 70 per cent native vegetation.

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

Methodology References:
--Government of Western Australia, 2011

GIS Databases:
-NLWRA, Current Extent of Native Vegetation

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

Comments **Proposal is not likely to be at variance to this Principle**
There are numerous minor perennial watercourses within the local area (10km radius). The closest of these is Smith Brook which occurs within the southern portion of the proposed clearing.

The Forest Management Plan (Musulin, 2012) advises that no clearing will occur within 30m of creek lines and swamps. Standard Department of Environment and Conservation management practices require a 50m buffer of any watercourse or wetland to prevent clearing of riparian vegetation.

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

Methodology References:
-Musulin (2012)

GIS Databases:
-Hydrography, linear

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

Comments **Proposal is not likely to be at variance to this Principle**
The soil type mapped within the application area is described as 'steep, hilly to hilly dissected lateritic plateau with steep valley side slopes consisting of hard, and also sandy, neutral, and acidic, yellow and yellow mottled soils' (Northcote et al. 1968). These soils are not at high risk of wind erosion following clearing.

The Shire of Manjimup is well vegetated, with approximately 84.6 per cent native vegetation remaining (Government of Western Australia, 2011). Given that the application is for silvicultural thinning and the proponent has committed to retaining a minimum basal area of 16 to 18 m²/ha (Musulin, 2012), the proposed clearing is not likely to cause appreciable land degradation.

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

Methodology **References:**
-Northcote et al. (1960-68)
-Musulin (2012)
-Government of Western Australia, 2011

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 impact of falling trees as a result of clearing has the capability of damaging vegetation in the Smith Brook Nature Reserve which occurs directly adjacent to the application area. The vegetation may be providing some buffering capacity against the spread of weeds and dieback into this reserve. Weed and dieback management practices will assist in minimising the effects of clearing.

Given the above the proposal 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 is not likely to be at variance to this Principle**
The application area falls within the unassigned Public Drinking Water Source area of 'Warren River Water Reserve' and zone C of the 'Warren River Water Reserve' catchment area covered by the Country Areas Water Supply Act, 1947.

The Department of Water advise that zone C is a moderate risk part of the catchment and the timber harvest works be subject to a Forest Management Plan, retention of a basal area of at least 10m² over the area, exclusion of riparian areas and buffers and exclusion of grazing by livestock from the area (DOW, 2012). The proponent has submitted a Forest Management Plan (Musulin, 2012) which meets much of the above criteria, except to that relating to grazing. The proponent will be advised that no stock is to graze on the application area post clearing.

Smith Brook is located within the southern section of the application. The retention of a 50 meter buffer should be sufficient to protect the surface water of this watercourse.

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

Methodology **References:**
-DoW (2012)
-Musulin (2012)

Gis Databases:
-Hydrography linear,
-Groundwater Salinity

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments **Proposal is not likely to be at variance to this Principle**
Flooding is unlikely to be an issue given topography on site and clearing within the application area is for the purpose of silviculture which does not result in removal of all vegetation.

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

Methodology GIS database:
-Topographic Contours, Statewide

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

Comments

The application area is zoned priority agriculture under the Town Planning Scheme.

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

It has been advised that no falling trees should be allowed to impact on the Smith Brook Nature Reserve which lies adjacent to the proposed clearing (DEC, 2012).

A Commercial Producers Licence is required for this proposal.

No public submissions were received regarding this application.

The Department of Water has advised that there are no records of compensation having been paid to retain native vegetation (DoW, 2012).

The Shire of Manjimup (2012) advised that there is no planning or other matter which would affect the proposed thinning.

Methodology References:
DEC (2005)
DOW (2012)
Shire of Manjimup (2012)

GIS Databases:
-Town Planning Schemes

4. References

DEC (2012) Site Inspection Report for Clearing Permit Application CPS 5085/1, Lot 10911 on Plan 203844, Smith Brook. Site Inspection undertaken 04/07/2012. Department of Environment and Conservation, Western Australia. (DEC Ref: A521150)

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

Department of Water (2012). Country Area Water Supply Advice for CPS5085/1. DEC Ref: A519067

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.

Musulin, R. (2012) Forest Management Plan. Additional Information for CPS 5085/1, Lot 10911 on Deposited Plan 203844, Smith Brook. DEC Ref: A510517

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.

Shire of Manjimup (2012) Direct interest submission for CPS 5085/1. Received 21/06/2012. DEC Ref: A517628.

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)