



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4031/1
File Number: 2010/008745
Duration of Permit: From 2 January 2011 to 2 January 2016

PERMIT HOLDER

Michael John Blee
Elizabeth Patricia Blee

LAND ON WHICH CLEARING IS TO BE DONE

Lot 5489 on Plan 229282, Glenoran

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 5.3 hectares of native vegetation within the combined area, of the areas cross hatched yellow on attached Plans 4031/1a and 4031/1b.

CONDITIONS

1. Purpose for which clearing may be done

- (a) Clearing of 2.8 hectares of native vegetation within the area cross-hatched yellow on Plan 4031/1a for the purpose of sustainable forest management.
- (b) Clearing of 2.5 hectares of native vegetation within the area cross-hatched yellow on Plan 4031/1b for the purpose of parkland clearing.

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 condition 1(a) of this Permit, the Permit Holder may undertake the following activities within the area cross-hatched yellow on Plan 4031/1a:

- (a) The Permit Holder may undertake the following activities:
 - (i) clearing and burning of *understorey*;
 - (ii) clearing for the establishment of a *log landing* no larger than 0.1 hectares in size;
 - (iii) *thinning* of Marri (*Corymbia calophylla*), Karri (*Eucalyptus diversicolor*) and Blackbutt (*Eucalyptus patens*) trees; and
 - (iv) *culling* and burning of unsaleable trees.
- (b) The Permit Holder shall not clear any native vegetation after 2 January 2013.

4. Vegetation management

In relation to the clearing authorised under Condition 1(a) of this Permit and being within the area cross-hatched yellow on attached Plan 4031/1a:

- (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 18-20m²/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 area subject to *thinning* activities.
- (e) Within one month of completing clearing, the Permit Holder must *rehabilitate* any *log landings* established within native vegetation by scarifying the soil surface to reduce compaction and facilitate natural regeneration.
- (f) 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 4(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.

5. 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.

6. Records must be kept

The Permit Holder must maintain the following records in relation to vegetation management pursuant to condition 4 of this Permit:

- (a) prior to clearing native vegetation authorised under this Permit, the species composition, structure and density of *understorey*;
- (b) the species and number per hectare of *habitat trees* retained;
- (c) 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;
- (d) monitoring undertaken to ensure that the specified minimum *basal area* is retained;
- (e) number of *log landings* established;
- (f) 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;
- (g) photographs of the *understorey* taken at one year, two years and three years after completing clearing authorised under this Permit; and
- (h) a detailed description of the nature and extent of any *remedial actions* undertaken.

7. 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 6 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 October 2015, the Permit Holder must provide to the CEO a written report of records required under condition 6 of this Permit where these records have not already been provided under condition 7(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, measured at average adult human breast height, is expressed as square metres per hectares of land area;

culled/ing means the selective removal and/or killing of unsaleable trees for *thinning*, using methods including notching, felling or machine pushing;

dieback means the effect of *Phytophthora* species on native vegetation;

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

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, 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 June 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;

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*.

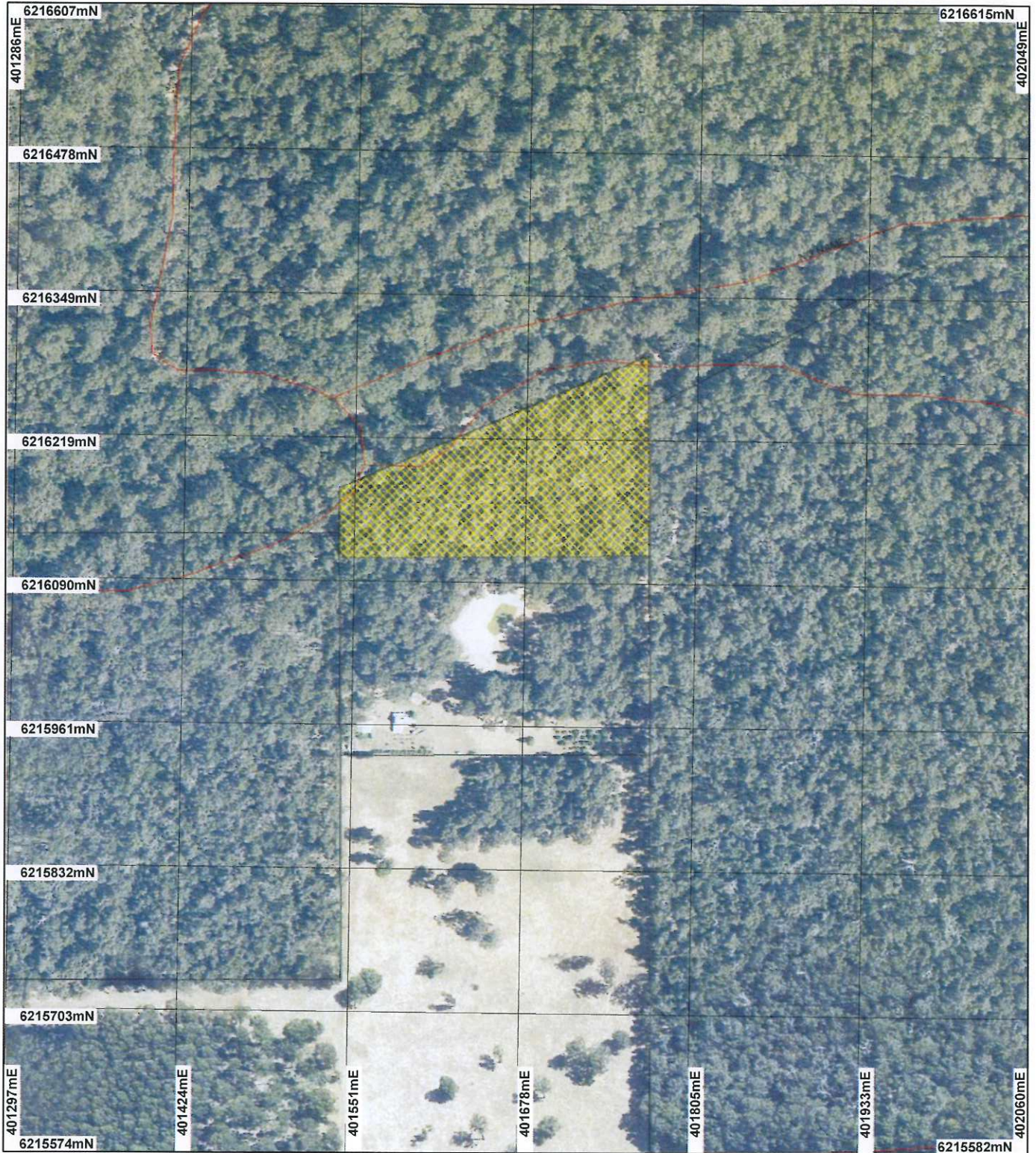


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

8 December 2010

CPS 4031/1 a



LEGEND

Clearing Instruments

-  Areas Approved to Clear
 -  Road Centrelines
 -  Cadastre
- Donnelly 50cm Orthomosaic - Landgate 2004

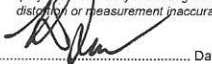


0  125 m

Scale 1:4541
(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 8/12/10

K. 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.



Department of Environment and Conservation

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Plan 4031/1b



LEGEND

Clearing Instruments

-  Areas Approved to Clear
-  Road Centrelines
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0  ~125 m

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1. Application details

1.1. Permit application details

Permit application No.: 4031/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Michael John and Elizabeth Patricia Blee

1.3. Property details

Property: LOT 5489 ON PLAN 229282 (GLENORAN 6258)
Local Government Area: Shire of Manjimup
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2.5		Mechanical Removal	Grazing & Pasture
2.8		Mechanical Removal	Timber Harvesting

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 8 December 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
Beard Vegetation Association: 1144: Tall forest; karri & marri (Corymbia calophylla)	The vegetation under application is predominately regrowth Karri/marri and blackbutt forest. The ground cover comprises mainly of introduced grasses and braken fern (DEC, 2010). The property was last cleared approximately 50 years ago (DEC, 2010).	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation under application was determined via digital imagery (Donnelly 50cm Orthmosaic - Landgate 2007) and through a site inspection (DEC, 2010).
Mattiske Vegetation Complex: Lefroy (LF): Tall open forest of Eucalyptus diversicolor-Corymbia calophylla on slopes and low woodland of Agonis juniperina-Callistachys lanceolata on lower slopes in hyperhumid and perhumid zones (Mattiske and Havel, 1998).	The southern portion of the property which is proposed to be parkland cleared is described as being in a good (Keighery, 1994) condition. The northern portion of the property which is to be thinned for sustainable forest management is in an excellent (Keighery, 1994) condition (DEC, 2010).	To Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	

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 proposal is to conduct sustainable forest management on 2.8 hectares (ha) of excellent (Keighery, 1994) condition native vegetation and parkland clear 2.5ha of good (Keighery, 1994) condition native vegetation within Lot 5489 on Plan 229282, Glenoran. The proposed clearing will predominately be of Karri (*Eucalyptus diversicolor*), Marri (*Corymbia calophylla*) and Blackbutt (*Eucalyptus patens*) trees (DEC, 2010).

The area under application has been logged in the past and the regrowth is approximately 50 years old.

Conservation significant fauna recorded within the local area (10km radius) includes; *Setonix brachyurus* (Quokka), *Isodon obesulus fusciventer* (Quenda), *Macropus irma* (Western Bruch Wallaby) and *Calyptorhynchus banksii naso* (Forest Red-tailed black cockatoo). Although some of these species may inhabit the area under application is not considered to be significant habitat as the local area is well vegetated with approximately 85% native vegetation remaining.

The property under application abuts DEC managed land on three sides.

Given that surrounding areas contain vegetation in better condition than that of the applied area, the vegetation under application is not likely to be representative of an area high in biodiversity on a local or regional scale.

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

Methodology References:
Keighery, 1994

GIS Databases:
- DEC Managed Lands & Waters - DEC 28/10/09
- Donnelly 50cm Orthomosaic - Landgate 2007
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 9/11/10
- Soils, Statewide - 30/11/99

(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**

Within the local area (10km radius) there are numerous records of the Forest Red-tailed black cockatoo (*Calyptorhynchus banksii naso*) (Vulnerable, Wildlife Conservation Act 1950; Vulnerable, Environment Protection and Biodiversity Conservation Act 1999) and the vegetation under application may provide suitable habitat for this and other threatened black cockatoo species. Fauna management conditions will mitigate the impact of the proposed clearing on indigenous fauna. Native Forest Management Plan includes, where they exist, the retention of 2 habitat trees per hectare (Blee, 2010).

There is likely to be Quokka (*Setonix brachyurus*) (Vulnerable, Wildlife Conservation Act 1950; Vulnerable, Environment Protection and Biodiversity Conservation Act 1999) in the nearby state forest, however the proposed clearing is not expected to impact on these populations.

Given the local area (10km radius) is well vegetated with approximately 85% native vegetation coverage it is unlikely that the vegetation under application will be significant habitat for fauna indigenous to Western Australia.

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

Methodology References:
Blee, 2010
Keighery, 1994

GIS Databases:
- Donnelly 50cm Orthomosaic - Landgate 2007
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 5/11/10
- Soils, Statewide - 30/11/99

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments **Proposal is not likely to be at variance to this Principle**

There are three known records of the rare flora species *Caladenia harringtoniaea* in the local area, with the closest being 9.2km southwest of the application area. The application area does not exhibit the characteristics of this taxon's preferred habitat, which is sandy loam soils on winter-wet flats and granite outcrops (Western Australian Herbarium, 1998-) and is not likely to support a population of this species.

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

Methodology References:
Western Australian Herbarium, 1998-

GIS Databases:
- Donnelly 50cm Orthomosaic - Landgate 2007
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 5/11/10
- Soils, Statewide - 30/11/99

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

Comments Proposal is not likely to be at variance to this Principle

There are no known Threatened Ecological Communities within a 10km radius of the application area.

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

Methodology GIS Databases:

- Donnelly 50cm Orthomosaic - Landgate 2007
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 5/11/10
- Soils, Statewide - 30/11/99

(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 under application has been mapped as Beard vegetation association 1144 (Shepherd, 2009) and also as Mattiske Vegetation Complex LF (Lefroy) (Mattiske and Havel, 1998). Both of these mapped vegetation associations are well represented in the local area and the conservation reserve system. Beard 1144 retains approximately 79% and 78% of its pre-European extent in the Warren IBRA region and Shire of Manjimup, respectively, with 90% of the remaining vegetation held in secure land tenure (National Parks, Conservation Parks, Nature Reserves and CALM Managed Lands) (Shepherd, 2009).

Mattiske Vegetation Complex LF retains approximately 83.5% (being 16 812ha) of its pre-European extent of which 74% is held in secure tenure (Mattiske and Havel, 1998).

The local area (10km radius) is well vegetated with approximately 85% native vegetation coverage. Approximately 95% of this vegetation is on DEC managed land, with the South East Nannup, Barlee Brook, Donnelly and North Donnelly State Forests and nature reserves in the local area (10km radius).

The vegetation under application is not considered to be significant as a remnant of native vegetation in a highly cleared landscape and therefore, the proposed clearing is not at variance with this Principle.

Methodology References:

Mattiske and Havel, 1998
Shepherd, 2009

GIS Databases:

- Donnelly 50cm Orthomosaic - Landgate 2007
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 21/09/10

(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

Mapped datasets show a minor, perennial watercourse transecting the western portion of the application area in a north-south direction.

Donnelly River is located 800 meters east of the application area.

The property under application was inspected by a DEC officer and no riparian vegetation was identified (DEC, 2010).

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

Methodology References:

DEC, 2010

GIS Databases:

- ANCA, Wetlands - 26/03/99
- Donnelly 50cm Orthomosaic - Landgate 2007
- Hydrogeology, statewide - DoW 13/07/06
- Hydrography, linear - DoW 13/7/06

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

Comments Proposal is not likely to be at variance to this Principle

The proposal to thin native vegetation for sustainable forest management is unlikely increase erosion. The proposed clearing (parkland cleared) for grazing and pasture may increase the risk of wind erosion however any erosion will be small scale and not considered to appreciable.

Given the high annual rainfall (1100mm) waterlogging may occur if clearing is undertaken during wetter months but again this is not predicted to be appreciable.

Therefore, this proposal is not likely to be at variance to this principle.

Methodology GIS Databases:

- Acid Sulfate Soils Risk Map - DEC 06/09/06
- Evapotranspiration, Area Actual - BOM 30/09/01
- Groundwater Salinity, statewide - DoW 13/07/06
- Hydrogeology, statewide - DoW 13/07/06
- Rainfall, Mean Annual - BOM 30/09/01
- Soils, Statewide - 30/11/99

(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

Lot 5489 on Plan 229282 abuts DEC managed land on three sides, with a CALM executive body freehold block to the northeast and the South East Nannup State Forest surrounding the remainder of the property.

Soil disturbance and removal of native vegetation increases the risk of weeds and pathogens, such as dieback (*Phytophthora cinnamomi*), being introduced or spread. The management of dieback is of particular importance as the proposed clearing is within a high (1100mm) rainfall area and neighbours state forest.

Weed and dieback management conditions will minimise the risk of introduction or spread of pathogens and invasive species into the neighbouring DEC managed lands.

Given the above, the proposed clearing may be at variance with this Principle.

Methodology GIS Databases:

- DEC Managed Lands & Waters - DEC 28/10/09
- Pre-European vegetation - DA 01/01
- Soils, Statewide - 30/11/99

(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 transects the property and Donnelly River is located 800 meters east.

The application area is within the Donnelly River Water Reserve and the Donnelly River Surface Water Rights in Water and Irrigation Act 1914 area.

The proposed clearing may increase the risk of wind erosion however it is not expected that this will increase sediment levels in nearby waterways as the watercourse mapped on the property was not identified during the site inspection and there is dense vegetation (which will act as a buffer) between the application area and the Donnelly River.

It is unlikely that the proposed clearing of native vegetation will have appreciable impacts on surface or groundwater quality. Therefore, the proposed clearing is not likely to be at variance with this Principle.

Methodology GIS Databases:

- Hydrogeographic Catchments, Catchments - DoW 01/06/07
- Hydrogeology, statewide - DoW 13/07/06
- Public Drinking Water Source Areas (PDWSAs) - DoW 07/02/06
- Rainfall, Mean Annual - BOM 30/09/01
- RIWI Act, Areas - DoW 05/04/02
- RIWI Act, Groundwater Areas - DoW 13/07/06
- RIWI Act, Irrigation Districts - DoW 13/07/06
- Soils, Statewide - 30/11/99
- Topographic Contours, Statewide - DOLA 12/09/02

(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

The proposed clearing is not expected to increase the incidence or intensity of flooding.

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

Methodology GIS Database:

- Geomorphic Wetlands (Mt Categories), Swan Coastal Plain - 11/04/07
- Hydrogeology, Linear - DOC13/07/06
- Hydrogeology, Statewide - DOC13/07/06
- SAC Biodatasets - accessed 5/11/10

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

Comments

The application area is within the Donnelly River Water Reserve public drinking water source area and the Donnelly River and Tributaries Surface Water area proclaimed under the Rights in Water and Irrigation Act 1914. The Department of Water (DoW) has not provided advice, however they didn't have any objections to a similar proposal on an adjacent property (DoW, 2010).

The Shire of Manjimup (the Shire) requested that the applicant be advised to confer with the Shire 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 (Shire of Manjimup, 2010).

The applicant has prepared and submitted a Native Forest Management Plan (Blee, 2010).

Department of Environment and Conservation's Licensing Section has advised that an application for a Commercial Producers License has been received from Mr and Mrs Blee.

Methodology

References:

- Blee, 2010
- DoW, 2010
- Shire of Manjimup, 2010

GIS Databases:

- Aboriginal Sites of Significance - DIA 02/10
- Cadastre - Landgate 12/09
- Public Drinking Water Source Areas (PDWSAs) - 07/02/06
- RIWI Act, Areas - DoW 05/04/02
- RIWI Act, Groundwater Areas - DoW 13/07/06
- RIWI Act, Irrigation Districts - DoW 13/07/06
- Town Planning Scheme Zones - MFP 31/08/98

4. References

- Blee, MJ and EP (2010) Native Forest Management Plan for Lot 5489 on Plan 229282, Glenoran (DEC Ref: A351103).
- DEC (2010) Site Inspection Report for Clearing Permit Application CPS 4031/1, Lot 5489 on Plan 229282, Glenoran. Site inspection undertaken 8/11/10. Department of Environment and Conservation, Western Australia (DEC Ref: A351108).
- DoW (2010) Advice for Clearing Permit Application CPS 3970/1, Lot 8512 on Plan 229282, Glenoran. Department of Water, Western Australia (DEC Ref: A338205).
- 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.
- Shire of Manjimup (2010) Advice for Clearing Permit Application CPS 4031/1, Lot 5489 on Plan 229282, Glenoran (DEC Ref: A348215).
- Western Australian Herbarium (1998-). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> Accessed on 21/09/10

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)