



1. Application details

1.1. Permit application details

Permit application No.: 2659/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Peter Clifton

1.3. Property details

Property: LOT 11 ON PLAN 13267 (Lot No. 11 HOPGARDEN BEEDELUP 6260)
 Local Government Area: Shire Of Manjimup
 Colloquial name:

1.4. Application

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

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 Unit: 1144: Tall forest; karri & marri (Corymbia calophylla)*	The application is to clear 3 ha of vegetation for hazard reduction, 5.5 ha of clearing for forest management and 1.5ha of clearing for a house site.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the vegetation was determined by a site inspection of the applied area (DEC, 2008)

Mattiske Vegetation Complex:
 Crowea (CRb): Tall open forest of Corymbia calophylla-Eucalyptus diversicolor on upper slopes with Allocasuarina decussata-Banksia grandis on upper slopes in hyperhumid and perhumid zones. **

* (Shepherd, 2007; Hopkins et al., 2001)

** (Mattiske Consulting, 1998)

3. Assessment of application against clearing principles

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

Comments **Proposal may be at variance to this Principle**
 The proposal is for the clearing of 3 ha for hazard reduction, 1.5ha for house site and 5.5ha for silvicultural activities. The vegetation under application is in good (Keighery, 1994) condition as a site inspection identified minimal weed invasion and disturbance to the applied area with the exception of the forest edges which were primarily non-native grasses (DEC, 2008).

The local area is well vegetated with approximately 90% native vegetation remaining within a 10km radius.

The areas of forest that are long unburnt (DEC, 2008) and has not been thinned in recent history are likely to have a high level of biodiversity.

In addition the area under application has the potential for a priority 2 ecological community to occur however as this community if found in numerous areas across the Karri forest its presence within the applied area is not

considered to be significant (DEC, 2008)

The applied area also contains primarily non-native grasses around the edges of the forest and taking into consideration that the applied area shares its northern border with the Beedelup National Park (DEC, 2008) clearing of the applied area may result in the spread of non-native grasses into a conservation area.

Given that the area under application is likely to have a high level of biodiversity and taking into account the proportion of vegetation remaining on the property post clearing the proposal may be at variance to this principle.

As the proposed clearing area is adjacent to national park and registered National Estate, a condition for weed and dieback management will be imposed on the permit.

Methodology DEC (2008)
Keighery (1994)
GIS Databases:
CALM Managed Lands and Waters - CALM 01/06/05
Donnelly 50cm Orthomosaic - DLI04
SAC biodatasets - accessed 6 October 2008

(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 area under application has a dense scrub layer and substantial leaf litter which would provide habitat for numerous species of native fauna (DEC, 2008).

Given the nature of much of the clearing (thinning) there will be some disturbance to the vegetation under application but mostly only in the short term. Long term disturbance will vary in intensity and will only persist in some areas (for example the house site and fire protection zone).

The Native Forest Management Plan (2008) provides for the retention of potential habitat trees within the applied area at a rate of two per hectare. A condition relating to this retention rate will be imposed on the permit.

As there are nearby areas of vegetation in similar or better condition with some level of protection the vegetation under application is not likely to be significant as fauna habitat in a local context.

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

Methodology References:
DEC (2008)
Hopkins et al. (2001)
Native Forest Management Plan (2008)
Shepherd (2007)

GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05
Donnelly 50cm Orthomosaic DLI04
Mattiske Vegetation (01/03/1998)
Merrup 50cm Orthomosaic DLI04
NLWRA, Current Extent of Native Vegetation 20 Jan 2001
Pre European Vegetation - DA 01/01
SAC Biodatasets - accessed 6 October 08

(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 is one recorded occurrence of rare flora within a 10km radius of the applied area, namely *Caladenia harringtoniae*.

C. harringtoniae is known to occur in winter wet flats and along margins of lakes, creeklines and granite outcrops (WA Herbarium, 1998-) As the area under application is located on the mid and upper slopes and given that there are no mapped watercourses within the applied area, the vegetation under application is not likely to be suitable habitat for this rare flora.

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

Methodology References:

DEC (2008)
Western Australian Herbarium (1998-)

GIS Database:
SAC Biodatasets - accessed 25 September 08
Hydrography linear - DOW 13/7/06
Topographic contours statewide - DOLA and ARMY 12/09/02

(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 the local area (10km radius).

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

Methodology GIS Database:
SAC Biodatasets - accessed 25 September 08

(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**

Pre-European	Current	Remaining % area (ha)	% in reserves/ extent (ha)	DEC- managed land
IBRA Bioregion ** - Warren LGA	833,981	663,141	79.5	57.1
- Shire of Manjimup*	696,702	589,728	84.6	59.4
Beard vegetation associations** - 1144	160,315	127,463	79.5	42.6
Mattiske Vegetation Complex*** - CRb (Crowea)	527,433	428,454	81.2	N/A

* (Shepherd et al., 2001; Hopkins et al., 2001)
** (Shepherd, 2007)
*** (Mattiske Consulting, 1998)

The local area has approximately 90% native vegetation remaining, and the mapped vegetation type under application is well represented statewide.

The applied area is not considered to be significant as a remnant in an extensively cleared landscape, and therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology References:
Hopkins et al. (2001)
Mattiske Consulting (1998)
Shepherd et al. (2001)
Shepherd (2007)

GIS Database:
Interim Biogeographic Regionalisation of Australia - EA 18/10/00
Local Government Authorities - DLI 8/07/04
Mattiske Vegetation - CALM 1/03/1998
NLWRA, Current Extent of Native Vegetation 20 Jan 2001
Pre European Vegetation - DA 01/01
SAC Biodatasets - accessed 11 Feb 08

(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 no mapped watercourses within the applied area however there is one minor perennial watercourse adjacent to the north west corner of the area under application.

Aerial mapping shows that this watercourse has been converted downstream into two water holding facilities and a site inspection (DEC, 2008) identified that the vegetation in close proximity to the applied area was not in association with this watercourse.

A condition will be placed on the permit to ensure no clearing will occur within 50m of this mapped watercourse.

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

Methodology References:
DEC (2008)
Native Forest Management Plan (2008)

GIS Database:
Hydrography, linear (hierarchy) - 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**
Clearing is predominately for the purpose of silvicultural activities so it is unlikely that erosion will increase due to the clearing as an 18m square basal area will be retained (Forest Management Plan, 2008) and as the proposal is to selectively thin (ie not clear felled) 8.5ha of the 10ha area.

A site inspection of the applied area also identified that there is some possibility of soil erosion and drainage issues if the clearing is not managed appropriately (DEC, 2008)

As the clearing is predominately for silvicultural activities the proposed clearing is not likely to result in appreciable land degradation as vegetation will still remain over most of the property.

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

Methodology References:
DEC (2008)
Native Forest Management Plan (2008)

GIS Databases:
Donnelly 50cm Orthomosaic - DLI04
Groundwater Salinity, Statewide DoW 13/07/06

(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 vegetation under application is in good (Keighery, 1994) condition as a site inspection identified minimal weed invasion and disturbance to the applied area with the exception of the forest edges which were primarily non-native grasses (DEC, 2008).

The area proposed to be cleared is bordered by Beedelup National Park to the north and clearing of the forest edges may result in the spread of non-native grasses in to areas of conservation significance.

A condition relating to weed and dieback management will be placed on the permit to prevent the possible transfer of weeds and disease into the Beedelup National Park.

Methodology References:
DEC (2008)
Keighery (1994)

GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05
Donnelly 50cm Orthomosaic - DLI04

(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 area proposed to be cleared lies within the Donnelly River catchment area, however as the proposal is predominately for selective thinning and taking into account that a minimum basal area of 18m square will be retained, the proposal is unlikely to degrade water quality.

Methodology GIS Databases:
Public Drinking Water Source Areas (PDWSAs) - 07/02/06
Hydrographic Catchments - Catchments - DoW 01/06/07
Evapotranspiration Isoleths - WRC 29/09/98
Rainfall, Mean Annual Isohytes (1975 - 2003) - DEC 02/08/05
Hydrography, linear - DOW 13/7/06

(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 nature of the proposed clearing (predominately silviculture) it is unlikely to cause or exacerbate the incidence or intensity of flooding, as the clearing is mostly for the thinning of Karri trees over a large area and a sustained period of time, and regeneration will occur.

Methodology GIS Databases:
- Topographic Contours, Statewide - DOLA 12/9/02

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

Comments
The proposed activities require a Commercial Producers Licence, Owner Identification Code, Authority for others to sell on your behalf and a permit to Burn. The Forest Management Plan (2008) identifies all of these documents as having been applied for.

Methodology

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing:

- may be at variance to Principles (a) and (h); and
- is not or is not likely to be at variance to the remaining clearing Principles.

5. References

- DEC (2008) Site Visit Report by Department of Environment and Conservation Warren Region, unpublished report, DOC64808.
- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- 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.
- Native Forest Management Plan (2008) P. Clifton Hoggarden Road, F. J Bradshaw, Forest Consultant, unpublished report, DOC60032
- Shepherd, D.P. (2007). 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Western Australian Herbarium (1998?). Flora Base The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 14/10/2008).

6. 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)