



1. Application details

1.1. Permit application details

Permit application No.: 1725/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Augusta Margaret River

1.3. Property details

Property: SUSSEX LOCATION 1491 (Lot No. 1491 CAVES DEEPDENE 6290)
SUSSEX LOCATION 4385 (Lot No. 4385 CAVES AUGUSTA 6290)
Local Government Area: Shire Of Augusta-Margaret River
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.15		Mechanical Removal	Drainage

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 3: Medium forest; jarrah-marri (Hopkins et al. 2001; Shepherd et al. 2001).	The proposal involves clearing 0.15ha of relatively undisturbed open woodland for an underground water pipeline.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	The description of the clearing application area is based on advice provided by DEC (former CALM) to the Shire of Augusta-Margaret River (CALM, 2004); and a site visit conducted by DEC officers on 25 May 2007 (DEC Site Visit, 2007).
Mattiske Vegetation Complex: Cowaramup (Cw1): Mixture of open forest to woodland of Eucalyptus diversicolor-Corymbia calophylla and woodland of Eucalyptus marginata subsp. marginata ²⁴ -Corymbia calophylla on slopes and low woodland of Melaleuca preissiana-Banksia littoralis on depressions in the hyperhumid zone (Mattiske Consulting, 1998).	The vegetation under application comprises Eucalyptus marginata, Corymbia calophylla, Agonis flexuosa forest, over Agonis parviceps, Callistachys lanceolata, Xanthorrhoea preissii, Acacia myrtifolia heath B, over Phlebocarya ciliata, Dasypogon bromelifolius low heath D (DEC Site Visit, 2007). The vegetation health of the area under application was generally of Very Good to Excellent condition. While not obvious, there were indications that some form of past vegetation clearing may have occurred.		

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 proposed clearing is for the installation of a pipeline to transfer water from nearby soak Reserve 24816 to the Augusta Golf Course Reserve 27881. DEC Site Visit Report (2007) found that vegetation within the 0.15ha proposal site is of very good to excellent condition (Keighery, 1994). Aerial photography indicates that surrounding vegetation is extensive and appears to be in as good, or better, condition than that proposed to be cleared.

The proposed clearing of 0.15 hectares does not constitute a high level of biodiversity, and is therefore not likely to be at variance to this principle.

The proposed clearing site falls within a dieback risk area. Dieback conditions have been included in the permit to ameliorate the spread of dieback to uninfected areas.

Methodology Keighery (1994)
DEC (2007)
GIS Database:
- Augusta 1.4m Orthomosaic - DOLA 00

(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 proposal is to clear a total of 0.15 hectares for the installation of a pipeline from a nearby soak Reserve to the Augusta Golf course. DEC Site Visit Report (2007) found the condition of vegetation within the application area to be very good to excellent (Keighery, 1994).

Although the area may provide habitat for native fauna, the area proposed to be cleared is small (0.15ha) and linear (3m wide). Aerial photography indicates that surrounding vegetation is extensive and appears to be in as good, or better, condition than that proposed to be cleared.

Given the above, the vegetation under application is unlikely to provide significant habitat for indigenous fauna.

Methodology Keighery (1994)
GIS Database:
- FAUNA Sac Bio Datasets 280607
- Augusta 1.4m Orthomosaic - DOLA 00

(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 2 known records of Declared Rare Flora (DRF) within a five kilometre radius of the area under application. These include a Priority 4 species, *Hemiandra australis*, located approximately 2.8km east of the proposed clearing, and *Kennedia macrophylla* (classified rare) located just over 5kms to the south-east. Both of these species occur on different Mattiske vegetation complexes to vegetation types within the application area.

The area proposed to be cleared is small (0.15ha) and linear in shape. Given that the closest known record of rare flora is 2.8km from the application area and occurs on a different vegetation complex to that under application, the proposed clearing is unlikely to be at variance to this principle.

Methodology GIS Database:
- Soils, Statewide - DA 11/99
- DEFL SAC Bio dataset 280607

(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

Mapping indicates there is one known Threatened Ecological Community (TECs) within a five kilometre radius of the area under application. The TEC is described as an Aquatic Root Mat Community associated with the caves of the Leeuwin Naturaliste Ridge and located more than 3kms north-west of the application area.

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

Methodology GIS Database:
- TEC_POINTS Sac Bio Datasets 280607

(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			Conservation Status	% In reserves/CALM managed land
	Pre-European	Current extent	Remaining		
		(ha)*	(ha)*	(%)*	
IBRA Bioregions - Warren		834,053.950	657,114.138	78.8	Least Concern
Shire of Augusta-Margaret River		222,718	159,679	71.7	Least Concern
Vegetation type:					
Beard: Unit 1		69,130.23	54304.737	78.6	Least Concern
Beard: Unit 3		250,323.727	198,947.836	79.5	Least Concern
Mattiske Veg:					
Cowaramup (C1)		189,838	75,049	39.5	Depleted
Cowaramup (Cw1)		61,422	20,153	32.8	Depleted

The area under application is located in the Shire of Augusta Margaret River and within the Warren Bioregion. The extent of pre-European vegetation within these areas is 71.7% and 78.8% respectively (Shepherd et al., 2001; Shepherd, 2006).

The vegetation proposed to be cleared is a component of Beard Vegetation Associations 1 and 3 (Hopkins et al., 2001) of which there is 78.6% and 79.5% respectively of the pre-European vegetation extent remaining (Shepherd, 2006). These vegetation types are considered as having a conservation status of Least Concern (Department of Natural Resources and Environment, 2002).

The proposed clearing also forms a component of Mattiske vegetation complex Cowaramup (C1) and Cowaramup (Cw1), of which there is 39.5% and 32.8% respectively remaining (Mattiske Consulting, 1998) and has a conservation status of Depleted (Department of Natural Resources and Environment, 2002).

The proposed clearing does not fall within an extensively cleared area and the pre-European extent of the Warren Bioregion, Beard Vegetation Associations and Mattiske Vegetation Complexes of the area under application meet the National Objectives Targets for Biodiversity Conservation 2001 - 2005 (being greater than 30% of that present pre-1750). Based on this, the vegetation under application is not considered to be significant as a remnant within an area that has been extensively cleared.

Methodology Shepherd et al (2001)
 Shepherd (2006)
 Hopkins et al., 2001
 Mattiske Consulting (1998)
 Department of Natural Resources and Environment (2002)
 GIS Database:
 - Pre-European Vegetation - DA 10/01
 - Interim Biogeographic Regionalisation of Australia - EA 18/10/00
 - Mattiske Vegetation - CALM 24/3/98

(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 wetlands within the proposed clearing site. A Palusplain (seasonally waterlogged flat) is located approximately 180m north of the proposed clearing.

A minor perennial watercourse passes through the area under application. Aerial photography indicates that the proposed clearing intersects the watercourse within the road reserve associated with Caves Road.

Given the above, the proposed clearing is unlikely to impact riparian vegetation associated with the identified watercourse.

Methodology GIS Database:
 - Hydrography, Linear - DOE 1/2/04
 - Rivers, DOW
 - Geomorphic Wetlands, Augusta to Walpole y DOE 18/6/03

(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 purpose of the clearing is for the installation of a pipeline to service the Augusta Golf Club from a water supply dam located north-east of the application area. The topography within the region is of low relief with very shallow gradients, ranging from 10 - 25m AHD. The vegetation under application is not considered to be in an area associated with high salinity risk, and has a moderate to low risk of Acid Sulphate Soils occurring as a result of developmental activities.

Given the small and linear nature of the application area, it is unlikely that the proposed clearing of native vegetation would cause appreciable land degradation.

Methodology GIS Database:

- Topographic Contours, Statewide - DOLA 12/09/02
- Acid sulphate Soil Risk Map, Lower south West - DEC
- Salinity Risk LM 25m - DOLA 00

(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 is not likely to be at variance to this Principle

Fragmented sections of the Leeuwin Naturaliste National Park surround the proposed clearing, the nearest point of which lies approximately 30m east of the application area and comprises the same Mattiske vegetation complex as that of the proposed clearing.

The area under application falls within System 1 to 5 and 7 to 12 Areas, recommended for conservation as determined by the Environmental Protection Authority, Western Australia.

Given the small and linear nature of the application area, the proposed clearing of 0.15ha is unlikely to compromise the environmental values of the Leeuwin Naturaliste National Park. However, due to the proposed clearing site falling within a dieback risk area, dieback conditions have been included in the permit to ameliorate the spread of dieback to uninfected areas.

Methodology GIS Database:

- CALM Managed Lands and Waters - CALM 1/07/05
- Mattiske Vegetation - CALM 24/3/98
- System 1 to 5 and 7 to 12 Areas - DEP 06/95

(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 proposed clearing site falls within the Hardy Estuary/Blackwood River Catchment. The region is of low relief with an annual rainfall of 1100mm. Groundwater salinity is mapped at less than 500mg/L TDS (Total Dissolved Solids).

The proposed clearing for the installation of a pipeline may cause some short term water quality issues in terms of localised surface water sedimentation during works. However, due to the small and linear nature of the area proposed to be cleared, it is unlikely that the clearing of native vegetation for pipeline installation will cause deterioration in the quality of surface water or groundwater within the local area.

Methodology GIS Database:

- Hydrographic Catchments - Catchments - DOE 23/03/05
- Rainfall, Mean Annual - BOM 30/09/01
- Topographic Contours, Statewide - DOLA 12/09/02
- Groundwater Salinity, Statewide - 22/02/00

(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

Due to the topography within the local area, and the scale and nature of the proposed clearing, it is unlikely to exacerbate the incidence of flooding within the local area.

Methodology GIS Database:

- Topographic Contours, Statewide DOLA 12/09/02

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

Comments

The proposal to clear 0.15ha for the installation of a pipeline to service the Augusta Golf Club has been informally assessed by the EPA, with Public Advice given.

No submissions have been received for this proposal.

There is a Native Title Claim over the area under application. The Department of Environment and Conservation's advertising of the application in the West Australian Newspaper constitutes legal notification of the Native Title representative body for the purpose of the future act procedures under the Native Title Act 1993. No response was received from the representative body.

Methodology

GIS Database:

- Native Title Claims - DLI 07/11/05
- Environmental Impact Assessments

4. Assessor's comments

Purpose	Method Applied	area (ha)/ trees	Comment
Drainage	Mechanical Removal	0.15	The assessable criteria have been addressed and the proposal is not at variance to Principle (e); and is not likely to be at variance to Principles (a), (b), (c), (d), (f), (g), (h), (i) and (j).

5. References

- Department of Environment and Conservation, DEC. (2007). Site visit report. TRIM ref DOC24447
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- 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 Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.
- Shepherd, D.P. (2006). 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.

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)