



1. Application details

1.1. Permit application details

Permit application No.: 2752/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: George and June Dronow

1.3. Property details

Property: LOT 299 ON PLAN 103662 (Lot No. 299 PERICLES EAST AUGUSTA 6290)

LOT 299 ON PLAN 103662 (Lot No. 299 PERICLES EAST 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:
0.89		Mechanical Removal	Building or Structure

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 990: Low forest: peppermint (<i>Agonis flexuosa</i>)	The vegetation within the proposed clearing area is considered to be indicative of the two associated Mattiske complexes. The vegetation consists of Jarrah, Marri and Peppermint trees over <i>Banksia grandis</i> over <i>Banksia grandis</i> over <i>Bossiaea linophylla</i> , <i>Xanthorrhoea preissii</i> , <i>Zamia</i> , <i>Acacia pulchella</i> and mixed shrubs and sedges (DEC, 2008).	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	Vegetation condition assessed during DEC site visit 2008 and by Environmental Consultant 'Onshore Environmental Consultants'.
Mattiske Complex Dd (D'Entrecasteaux): Woodland on <i>Eucalyptus marginata</i> ssp. <i>marginata</i> - <i>Corymbia calophylla</i> - <i>Agonis flexuosa</i> - <i>Banksia grandis</i> - with some <i>Eucalyptus megacarpa</i> on recent low dunes with dense shrub understorey in hyperhumid and perhumid zones.			
Mattiske Complex Drd: Woodland of <i>Agonis flexuosa</i> , Heath of <i>Olearia axillaris</i> , <i>Poa poliformis</i> var. <i>poliformis</i> , <i>Spyridium globulosum</i> , <i>Leucopogon obovatus</i> , <i>Opercularia hispidula</i> var. <i>pauciflora</i> , <i>Lepidosperma gladiatum</i> and <i>Anigozanthos flavidus</i>			

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 proposed clearing of 0.89ha of native vegetation is for the purpose of fire protection. The vegetation under application is considered to be in 'excellent' (Keighery, 1994) condition, with a total of 57 plant taxa being identified (Onshore Environmental Consultants, 2008). As the vegetation is in excellent condition and consists of Jarrah and Marri trees over *Banksia grandis* along with mixed shrubs (DEC, 2008) the applied area may offer potential foraging and feeding habitat for avian fauna species such as the Forest Red Tailed Black Cockatoo (*Calyptorhynchus banksii naso*) and Baudins Black Cockatoo (*Calyptorhynchus baudinii*). During a DEC conducted site inspection (2008), possible Western Ringtail Possum (*Pseudocheirus occidentalis*) dreys were observed. Ground dwelling fauna such as the Chuditch (*Dasyurus geoffroii*) may also be present within the applied area.

The area proposed to be cleared is a part of a larger remnant of vegetation and the continued clearing of vegetation in the local area may impact on the biodiversity values in a local and regional context.

The area proposed to be cleared is within the Scott Coastal Plain. The Scott Coastal Plain is recognised as an area containing high biodiversity values (Strategen, 2005).

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

Methodology Keighery (1994)
Onshore Environmental Consultants (2008)
Strategen (2005)
GIS Layer:
- SAC Biodatasets, accessed 3 November 2008
- Augusta Townsite 20cm Orthomosaic - Landgate 2004
- Leeuwin 50cm Orthomosaic - Landgate 2004

(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 may be at variance to this Principle

As the vegetation is considered to be in excellent (Keighery, 1994) condition and consists of Jarrah and Marri trees over *Banksia grandis* along with mixed shrubs (DEC, 2008) the applied area may offer potential foraging and feeding habitat for avian fauna species such as the Forest Red Tailed Black Cockatoo (*Calyptorhynchus banksii naso*) and Baudins Black Cockatoo (*Calyptorhynchus baudinii*).

During a DEC conducted site inspection (2008), possible Western Ringtail Possum (*Pseudocheirus occidentalis*) dreys were observed. The presence of Peppermint trees (*Agonis flexuosa*) increases the likelihood of this species utilising the application area (DEC, 2007). Ground dwelling fauna such as the Chuditch (*Dasyurus geoffroii*) may also be present within the applied area.

It is considered that the proposed clearing may be at variance to this principle.

Methodology DEC (2008)
DEC (2007)
GIS Layer:
- SAC Biodatasets, accessed 3 November 2008
- Augusta Townsite 20cm Orthomosaic - Landgate 2004
- Leeuwin 50cm Orthomosaic - Landgate 2004

(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

A survey conducted by Onshore Environmental (2008) identified 57 taxa within the building envelope, however the survey does not appear to cover the entire area proposed to be cleared (DEC, 2008). The habitat within the proposed clearing area is unlikely to be suitable for rare flora (DEC, 2008).

Methodology DEC (2008)
Onshore Environmental (2008)
GIS Layer:
- SAC Biodatasets, accessed 3 November 2008

(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 four known records of Threatened Ecological Communities (TEC's) within the local area (10 km radius):

- Closed sedgeland on shallow soils derived from granite gneiss (Sedgelands of Cape Leeuwin Spring)
- Rimstone Pools and Cave Structures (Augusta microbial)
- Scott River Ironstone Association (SCOTT IRONSTONE)
- Aquatic Root Mat community (CAVES LEEUWIN01)

These TEC's require specific substrate conditions which are not present within the applied area, therefore the proposed clearing is unlikely to be at variance to this principle

Methodology GIS Layer:
- SAC Biodatasets, accessed 10 November 2008
- Augusta Townsite 20cm Orthomosaic - Landgate 2004

- Leeuwin 50cm Orthomosaic - Landgate 2004
- Soils, Statewide
- Hydrogeology, Statewide
- Geology, Statewide

(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 vegetation under application is part of Beard vegetation association 990, which has 74% of pre-European levels of vegetation remaining (Shepherd, 2007). The applied area is also mapped as being part of Mattiske vegetation complexes Dd and Drd, which retain 96% & 97% of pre-European levels of vegetation respectively (Mattiske, 1998). This is well above the EPA supported threshold level of 30% recommended in the National Objectives Targets for Biodiversity Conservation; below which species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000).

The area proposed to be cleared is a part of a larger tract of remnant vegetation and contributes to an ecological corridor. The continued clearing of vegetation in the local area may impact on the biodiversity values in a local and regional context. However given that the local area (10km radius) retains approximately 60% vegetation and the applied area is relatively small (0.89ha), it is considered unlikely that the proposed clearing is at variance to this principle.

- Methodology**
- EPA (2000)
 - Mattiske (1998)
 - Shepherd (2007)
 - GIS Layers:
 - SAC Biodatasets, accessed 3 November 2008
 - CALM Managed Lands and Waters
 - Augusta Townsite 20cm Orthomosaic - Landgate 2004
 - Leeuwin 50cm Orthomosaic - Landgate 2004

(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

The area proposed to be cleared is approximately 340 metres from the Hardy Inlet on the Blackwood River and 130 metres from a mapped sumpland. Between these areas and the application area there is remnant vegetation, which is likely to be providing a buffer. It is considered that the proposed clearing is not within or directly associated with the watercourse and therefore the proposed clearing is unlikely to be at variance to this principle.

- Methodology**
- GIS Databases:
 - Hydrography, linear
 - Augusta Townsite 20cm Orthomosaic - Landgate 2004
 - Leeuwin 50cm Orthomosaic - Landgate 2004

(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 proposed to be cleared contains poorly drained soils (Northcote et al., 1960-1968) which have the potential to become seasonally inundated without water uptake by vegetation. Given the small size of the proposed clearing (0.89ha), it is considered unlikely that water logging or an increase in salinity will result.

Wind and water erosion are also considered to be unlikely given the low lying topography and soil characteristics of the applied area.

The proposed clearing is unlikely to be at variance to this principle.

- Methodology**
- Northcote et al (1960-1968)
 - GIS Layer:
 - Soils, Statewide
 - Topographic contours, Statewide
 - Groundwater Salinity, 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 is not likely to be at variance to this Principle

Within the local area (10 km radius) there are four known conservation areas:

- Blackwood River ANCA wetland
- Leeuwin Naturaliste National Park
- Un-named Nature Reserve
- Scott National Park

The application area is separated from two of these conservation areas by a large body of water. This prevents connectivity between the application and conservation areas. The remaining conservation areas are unlikely to be impacted due to the small size (0.89ha) of clearing and the amount of surrounding vegetation (approximately 60% remaining in the local area).

It is unlikely that the proposed clearing is at variance to this principle.

Methodology GIS Layers:

- CALM Managed Lands and Waters
- Augusta Townsite 20cm Orthomosaic - Landgate 2004
- Leeuwin 50cm Orthomosaic - Landgate 2004

(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 is approximately 130 metres from a mapped sumpland and 340 metres from the Hardy inlet estuary. Between these areas and the application area is remnant vegetation, which is likely to be providing a buffer to any short term sedimentation resulting from the clearing.

Given the size of the proposed clearing (0.89 ha) and the amount of surrounding vegetation (approximately 60% remaining in the local area), it is unlikely that surface or groundwater quality will be impacted.

Methodology GIS Layers:

- Augusta Townsite 20cm Orthomosaic - Landgate 2004
- Leeuwin 50cm Orthomosaic - Landgate 2004
- Geomorphic Wetlands, Augusta to Walpole

(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 area proposed to be cleared contains poorly drained soils (Northcote et al., 1960-1968) which may become seasonally inundated without water uptake by vegetation.

In large rainfall events there may be some small scale localised flooding, however it is unlikely that this will be exacerbated by the proposed clearing.

Methodology Northcote et al (1960 - 1968)
GIS Layers:

- Soils, statewide

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

Comments

A submission has been received from the Shire of Augusta-Margaret River. The Shire does not support the clearing as presented and advises that it is beyond the requirements for Bushfire protection (DEC TRIM Ref: DOC77588).

The applicant stated in writing on 8 September that they will not be making a final decision on the clearing application until after they have finished building their shed (DEC TRIM Ref: DOC98691).

Methodology

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s510 of the Environmental Protection Act 1986, and the proposed clearing may be at variance to principles (a) & (b) and is not likely to be at variance to the remaining principles.

5. References

- DEC, 2008, DEC Regional Site Visit, TRIM ref DOC 69196
- 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.
- 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.
- Onshore Environmental Consultants, 2008, Flora and Vegetation Survey: Lot 299 Pericles Street, East Augusta, TRIM ref DOC 67438.
- 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.
- Stategen (2005) Flora and vegetation of the Blackwood valley systems and Scott Coastal Plain, South West Yarragadee Water Supply Development ,Information Series Report No 7. Prepared for Water Corporation by Stategen, April 2005

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)