



1. Application details

1.1. Permit application details

Permit application No.: 1638/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Wanda & Ray Payne

1.3. Property details

Property: LOT 1124 ON PLAN 102593 (CAPEL 6271)

Local Government Area: Shire Of Capel

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.5		Mechanical Removal	Building or Structure
0.5		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
SOUTHERN RIVER COMPLEX : Open woodland of <i>E. calophylla</i> - <i>E. marginata</i> - <i>Banksia</i> species with fringing woodland of <i>E. rudis</i> - <i>M. raphiophylla</i> along creek beds.	The area under application for the house, shed and the surrounding buffer of approximately 50m is mostly Degraded (Keighery, 1994), consisting of almost no vegetative cover, save a thin layer of pasture, with the odd, scattered mix of <i>Melaleuca preissiana</i> (moondah), <i>Nuytsia floribunda</i> (christmas tree), <i>Corymbia calophylla</i> (marri) and <i>Xanthorrhoea preissii</i> (grass tree). The surrounding vegetation is open, comprising clumps of dead and dying marri with few understorey species.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	A condition of degraded - good has been determined from a property site visit. (TRIM ref DOC25293)

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

A DEC Site Visit found that vegetation within the area proposed to be cleared was predominantly in a 'degraded - good' condition (Keighery, 1994). The property has been grazed by stock in the past and has been disturbed and cleared in various areas on the lot.

The area proposed to be cleared lies within a Lot in which there is a Threatened Ecological Community. This TEC is an actual plot mapped 180 m west of the proposed clearing. Site photos show that vegetation type and structure in this area appears different from the degraded vegetation within the proposed clearing area.

There is an abundance of DRF within the local area however the regional Nature conservation officer believes it is unlikely that DRF would occur within the notified area.

The proposed clearing area also lies within the mapped east-west Wonnerup/ Ludlow river/ Gibson Forest ecological linkage as set out by the Greater Bunbury Region Scheme (GBRS). This ecological linkage was selected based on numerous factors including EPA endorsed information which encompasses flora, vegetation and fauna surveys, floristic community mapping and bird movement patterns.

Although the area lies within a heavily cleared landscape and is mapped as part of an ecological linkage, the degraded and disturbed condition of the vegetation under application is not likely to be of high biological diversity.

Methodology Keighery, 1994
Greater Bunbury Region Scheme - Bulletin 1108, 2003
DEC Site Visit, 2007
GIS Databases:
- SAC Bio Datasets y DEC 06/07
- Busselton 50cm Orthomosaic - DLI 03

(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) the following species of conservation significance have been recorded:

- Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*)
- Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*)
- Western Ringtail Possum (*Pseudocheirus occidentalis*)
- Quenda (*Isodon obesulus fusciventer*)
- Western Brush Wallaby (*Macropus irma*)
- Southern Brush-tailed Phascogale (*Phascogale tapoatafa tapoatafa*)
- Black Bittern (*Ixobrychus flavicollis australis*)

Site visit photo's taken from points within the proposed clearing show that much of the vegetation is in a 'degraded - good' (Keighery, 1994) condition. Some of the trees on the property have hollows which may provide habitat for some species. Canopy cover from the trees is not dense. There does not appear to be an abundance of trees. Ground cover is sparse and unlikely to provide habitat for species which prefer denser cover.

The proposed clearing area also lies within the mapped east-west Wonnerup/ Ludlow river/ Gibson Forest ecological linkage as set out by the Greater Bunbury Region Scheme (GBRS).

Given the sparse cover and degraded condition of vegetation, in addition to the small size of clearing it is unlikely that the area proposed to be cleared represents significant habitat for native fauna.

Methodology DEC Site Visit Report 2007
Greater Bunbury Region Scheme - Bulletin 1108, 2003
Keighery, 1994
GIS Databases:
- SAC Bio Datasets y DEC 06/07
- Busselton 50 cm Orthomosaic - DLI 03

(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 205 records of 17 species of Declared Rare Flora (DRF) within the local area (10 km). This diversity and abundance suggests that the local area holds a high habitat value for DRF species.

Advice from the local Nature Conservation Officer stated that due to the degradation and past disturbance within the area he believed it to be unlikely for any rare or priority species to be present. This advice was supported by the Species and Communities Branch of DEC, who stated that the area was too degraded to support known DRF species.

Methodology Species and Communities Branch, DEC, 2006 TRIM ref DOC25363
GIS Databases:
- SAC Bio Datasets 06/07

(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

Within the local area (10 km) there have been six Threatened Ecological Communities (TEC) identified.

1. SCP 1b - Eucalyptus calophylla woodlands on heavy soils of the southern Swan Coastal Plain.
2. SCP 3a - Eucalyptus calophylla-Kingia australis woodlands on heavy soils, Swan Coastal Plain.
3. SCP 02 - Southern wet shrublands, Swan Coastal Plain
4. SCP 07 - Herb rich saline shrublands in clay plains
5. SCP 10b - Shrublands on southern Swan Coastal Plain limestones
6. SCP 10a - Shrublands on dry clay flats

TEC SCP 10a lies within the Lot containing the proposed clearing. The TEC boundary lies 180m to the west of the proposed clearing and the proposed clearing lies within the buffer area of the TEC.

Advice from the Species and Communities Branch within DEC stated that the buffer for the TEC has been imposed to prevent hydrology changes in the surrounding area. As the area proposed to be cleared is small and degraded it is unlikely that clearing within these areas will impact upon hydrology. It is unlikely that the proposed clearing area is necessary for the maintenance of this TEC.

Methodology GIS Databases:

- SAC Bio Datasets y DEC 06/07
- Busselton 50cm Orthomosaic - DLI 03

(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 area proposed to be cleared is mapped within the Hedde 'Southern River' Vegetation Complex and falls within Beard vegetation type 1000. They have approximately 18.5% and 25.7% remaining, respectively (Hedde et al, 1980 and Shepherd et al, 2002).

The IBRA region that the proposed clearing falls within, retains 23.9% of remnant vegetation and the Shire of Capel has 35.9% remaining

A site visit conducted by DEC officers found that the vegetation in proposed clearing areas to be in a 'degraded - good' condition (Keighery, 1994).

The area proposed to be cleared lies in a landscape that is highly cleared and is situated within an ecological linkage identified by the Greater Bunbury Region Scheme (GBRS).

The proposed clearing is within the east-west Wonnerup/ Ludlow river/ Gibson Forest ecological linkage. ecological linkage, in addition to vegetation percentages that are below recommended levels any remnant vegetation. As the area proposed to be cleared is relatively small and the vegetation is in degraded - good condition (Keighery, 1994) the area proposed to be cleared is unlikely to be significant as a remnant of native vegetation.

Methodology

- DEC Site visit 2007
- EPA Bulliten 1108 (2003)
- Hedde et al, 1980
- Shepherd et al, 2002
- Keighery, 1994
- GIS Databases:
 - Hedde Vegetation Complexes - DEP 21/06/95
 - Interim Biogeographic Regionalisation of Australia - EM 18/10/00
 - Pre European Vegetation - DA 01/01
 - Busselton 50cm Orthomosaic

(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 at variance to this Principle

Part of the proposed clearing area lies within a mapped Resource Enhancement (RE) wetland, classified as a sumpland.

Vegetation remaining within the application, which does not lie within the mapped wetland, may be utilised by wetland associated fauna species. In particular, the Quenda (Isodon obesulus fusciventor) and water-rat (Hydromys chrysogaster) which are known from the local area (10km) may utilise vegetation surrounding the

wetland. It is likely that this vegetation is associated with wetland.

A site visit by regional Nature Conservation officers recommended a revised alignment based on existing tracks and the state of vegetation condition within the property. The proponent has agreed to amend the driveway area to minimise impact to the wetland.

Methodology GIS Database
- Geomorphic Wetlands (Classification), Swan Coastal Plain - DEC

(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 has been mapped as having a low to moderate risk of acid sulphate soils. Salinity within the area is a low risk.

Soils within the area proposed to be cleared are described as sandy and sand over silt with underlying clay areas.

As the area proposed to be cleared is relatively small in size it is unlikely to cause appreciable land degradation if this application is approved.

Methodology GIS Databases:
- Acid Sulphate Soil Risk Map, Swan Coastal Plain
- Rainfall, Mean Annual BOM 30/09/01
- Groundwater Salinity, Statewide - DOW
- Evaporation Isopleths BOM
- Topographic Contours, Statewide, DOLA 12/09/02

(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**

Part of the area proposed to be cleared lies within a resource enhancement wetland.

Within the local area are the following conservation areas:

Tuart Forest National Park - approx 5km W
Ludlow State Forest - approx 6km W
Coolilup State Forest - approx 3.6km W
Capel Nature Reserve - approx 2.4km NW
Ruaben Townsite Nature Reserve - approx 6.9km SW
Un-named Nature Reserve - approx 7km S
Millbrook State Forest - approx 8km SE
Jarrahwood State Forest - approx 7.5km SE
Boyanup State Forest - approx 8.7km E

There are also 2 covenanted properties within the local area:-

CALM covenant - approx 2km NW
AGWA heritage covenant - approx 3km SW

The proposed clearing area also lies within the mapped east-west Wonnerup/ Ludlow river/ Gibson Forest ecological linkage as set out by the Greater Bunbury Region Scheme (GBRS). The property that contains the proposed clearing is also part of a continuous vegetated link between the covenanted areas, wetlands and Capel Nature Reserve.

Although the proposed area to be cleared is partly located within a wetland and is part of an ecological link in a highly cleared landscape, the vegetation is in degraded - good condition (Keighery, 1994) and the area is small enough that any impact from clearing is likely to be minimal.

Methodology Greater Bunbury Region Scheme - Bulletin 1108, 2003
GIS Databases:
- CALM Managed lands and waters - 01/07/05
- Geomorphic wetlands (classification), Swan Coastal Plain
- CALM Covenants
- AGWA Heritage covenants
- Busselton 50cm Orthomosaic - DLI 03

(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 Busselton Coast basin of the Capel River Catchment. This area is also a RIWI Act area.

Desktop mapping indicates that the notified area lies partly within a resource enhancement wetland. A site visit by DEC Regional Nature Conservation Officers resulted in a proposal to amend the proposed clearing to existing tracks. The proponent has accepted the amendment and the impact up on the wetland will be reduced.

As the area proposed to be cleared is relatively small and utilises existing cleared areas it is unlikely that the clearing is at variance to this principle.

Methodology DEC Site Visit 2007

GIS Databases:

- RIWI Act, Areas - DOW
- Hydrographic Catchments - Basins - DOW
- Hydrographic Catchments - Catchments - DOW
- Busselton 50cm Orthomosaic - DLI 03

(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 small size of the application area and transmissive soils within the lot, the proposed clearing is unlikely to cause, or exacerbate, the incidence of flooding

Methodology

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

Comments

The area proposed to be cleared lies within the Greater Bunbury Region Scheme (GBRS). The notified area is zoned Rural under the GBRS. The proposed clearing area lies within the mapped east-west Wonnerup/ Ludlow river/ Gibson Forest ecological linkage.

The actual lot that the proposed clearing is within was set in 1999 as S38 scheme not assessed -public advice given. An area 2.5km to the south east of the proposed clearing was formally assessed by the EPA, however conditions and recommendations relating to the assessment were quite specific to that lot and the proposed land use.

Methodology

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Building or Structure	Mechanical Removal	0.5	The area has been assessed and the assessing officer has found that the proposed clearing is at variance to principle (f). The assessing officer recommends the granting of this permit.
Building or Structure	Mechanical Removal	0.5	

5. References

- DEC (2007) Biodiversity advice for land clearing application. Advice to Assessing Officer, Native Vegetation Assessment Branch, Department of Industry and Resources (DoIR), received 1 Feb 2007. Biodiversity Coordination Section, Department of Environment and Conservation, Western Australia. TRIM Ref DOC 25363
- DEC Site Visit Report, 24 May 2007, TRIM ref DOC25293
- Environmental Protection Authority, 2003, Greater Bunbury Region Scheme - Bulletin 1008, Appendix 4, <http://www.epa.wa.gov.au/article.asp?ID=1683&area=EIA&CID=16&Category=EPA+Bulletins>
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- 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)