



1. Application details

1.1. Permit application details

Permit application No.: 1708/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Daryl Potter

1.3. Property details

Property: LOT 160 ON PLAN 13359 (House No. 78 MINNINUP STRATHAM 6237)

Local Government Area: Shire Of Capel

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.9		Burning	Grazing & Pasture
0.9		Mechanical Removal	Grazing & Pasture

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
Heddlle Vegetation Complexes: KARRAKATTA COMPLEX - CENTRAL AND SOUTH : Predominantly open forest of <i>E. gomphocephala</i> - <i>E. marginata</i> - <i>E. calophylla</i> and woodland of <i>E. marginata</i> - <i>Banksia</i> species.	The proponent has advised that the area has a few larger Peppermint trees (<i>Agonis flexuosa</i>) and a light to medium density of <i>Banksia</i> sp. The understorey is sparse and the area is burnt every season.	Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	The condition of the area proposed to be cleared has been based on aerial photographs and information from the proponent.

Pre-European Vegetation type 6: Medium woodland; tuart & jarrah

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 area proposed to be cleared appears to be in 'good' (Keighery, 1994) condition and is zoned as special rural within the Shire of Capel. The area is annually burned for fire prevention. The proponent advised that the area has some mature Peppermint trees (*Agonis flexuosa*), *Banksia* sp. and little undergrowth.

There is a concern that the block may be infected with *Phytophthora* sp. as some indicator species such as *Banksia*'s are slowly dying off, however there may be other causes leading to the dying of the *Banksia*'s.

The Peppermint trees are likely to provide nesting and foraging habitat for the Western Ringtail possum (*Pseudocheirus occidentalis*). The notified area also lies within the Ludlow/Capel River ecological linkage identified in the Greater Bunbury Region Scheme.

As the area is small in size with an apparent low species diversity, good condition vegetation and frequent disturbance it is unlikely to compromise high levels of biodiversity and is therefore unlikely to be at variance to this principle.

Methodology Greater Bunbury Regeion Scheme - Bulletin 1108
Keighery, 1994
GIS Databases:
- Preston - Gelorup - Bunbury Townsite 20cm Orthomosaic - DLI04

(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

Within the local area (10 km radius) the following species have been recorded in recent times (1990 onwards)

Western Brush Wallaby - *Macropus irma*
Western Ringtail Possum - *Pseudocheirus occidentalis*
Quenda - *Isodon obesulus fusciventer*
Forest Red-Tailed Black Cockatoo - *Calyptorhynchus banksii naso*
Chuditch - *Dasyurus geoffroii*

The proponent has advised that within the area proposed to be cleared there are numerous mature Peppermint Trees (*Agonis flexuosa*). These trees are known to be the preferred species for nesting and diet of the Western Ringtail Possum.

The area proposed to be cleared lies within the Ludlow/Capel River Ecological linkage identified in the Greater Bunbury Region Scheme.

Although the area is small in size, given the mature vegetation on site and the location within an identified ecological linkage the clearing as proposed may be at variance to this principle. A condition will be placed on the permit to retain habitat trees, if the permit is granted.

Methodology Greater Bunbury Region Scheme - Bulletin 1108
GIS Databases:
-SAC Biodatasets 16/07/07

(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 five known species of Declared Rare Flora within the local area (10km radius).

* *Caladenia huegelii*
* *Drakaea elastica*
* *Eleocharis keigheryi*
* *Synaphea stenoloba*
* *Verticordia densiflora* var. *pedunculata*

There are also 14 known priority flora species within the local area.

The vegetation and soil types characteristic of all species, other than *Caladenia huegelii*, differ to those within the proposed clearing area. This indicates that the vegetation under application may not provide suitable habitat for these species. In addition species other than *Caladenia huegelii* appear to be more commonly associated with seasonally wet habitat, which is not found to be represented within the proposed clearing area.

The area proposed to be cleared has been described, by the proponent, as having little undergrowth and is burnt every season. *Caladenia huegelii* is known to prefer areas of lush undergrowth (Brown et al 1998), although this is not always necessary. Given the disturbance associated with the habitat, and undergrowth condition, it is unlikely that this species would be found on site.

Methodology Brown et al, 1998
GIS Databases:
- SAC Biodatasets 26/06

(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 three different types of Threatened Ecological Communities within the local area (10km).

* SCP 3c - Herb rich shrublands in clay pans
* SCP 08 - *Eucalyptus calophylla* - *Xanthorrhoea preissii* woodlands and shrublands, Swan Coastal Plain
* SCP 19b - Woodlands over sedgeland in Holocene dune swales of the southern Swan Coastal Plain

The vegetation found within the proposed clearing area has different soil and vegetation characteristics from the above listed TEC's. Additionally the vegetation within the proposed clearing area, as described by the

proponent, appears to lack the species or structure required of these TEC's. It is unlikely that the area proposed to be cleared contains a TEC, and the distance from local TEC's is too great for the vegetation within the proposed lot to be necessary for their maintenance. Therefore the proposed clearing is unlikely to be at variance to this principle.

Methodology GIS Databases:
- SAC Bio Datasets - DEC 26/06

(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 Extent Remaining % Conservation status secure tenure

IBRA Bioregion	Pre-European Current Extent	Remaining %	Conservation status	secure tenure
Swan Coastal Plain	1529235	657450	43.0	
Shire of Capel	55869	20259	35.9	
Beard Unit 6	56345.85	15013.854	26.6	11.3
Heddle Veg complex Karrakatta	44288.807	19314.232	43.6	0.7

With the exception of Beard Vegetation type 6 all figures are above the recommended 30% of vegetation remaining (EPA 2000). As the proposed clearing area is in 'good' condition (Keighery, 1994) with little understorey and small in size, it is not considered to be significant as a remnant of native vegetation.

Methodology Keighery, 1994
Shepherd (2006)
Department of Natural Resources and Environment (2002)
EPA (2000).
GIS Databases:
- Preston - Gelorup - Bunbury Townsite 20cm Orthomosaic - DLI04

(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**

Mapping within the local area (10km radius) identifies the area proposed to be cleared as lying approximately 750 metres to the west of a multiple use wetland. Gynudup Brook and Five Mile Brook are located approximately 2km west and 3.3 km north respectively. Vegetation noted within the proposed clearing area is not indicative of wetland or associated species. Given the distance from the wetland areas and vegetation types found on site it is not likely that the clearing is at variance to this principle.

Methodology GIS Databases:
- Geomorphic Wetlands, Swan Coastal Plain
- Hydrography Linear - DOW properties
- Preston - Gelorup - Bunbury Townsite 20cm Orthomosaic - DLI04

(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 has been mapped as having no known acid sulfate risk. Groundwater salinity has also been mapped as a low risk at 500-1000 TDS (Total Dissolved Salts). Soils within the proposed clearing are described as being an undulating dune landscape with brown sands.

There is unlikely to be an increase of water logging or salinisation due to the size of the proposed clearing. Water erosion is unlikely to occur given the fine sands, however there is a slight risk of wind erosion due to these sands.

The impacts of clearing native vegetation are unlikely to cause appreciable land degradation.

Methodology GIS Databases:
- Groundwater Salinity, Statewide - DOW
- Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC
- Soils, Statewide - DA 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 is not likely to be at variance to this Principle

Tuart Forest National Park is located 1.8km to the south of the proposed clearing. There are numerous conservation category wetlands (CCW) within the local area (10km radius), the closest CCW being located 1.6km to the east. There are no other known covenants or conservation areas within a 10km radius.

The proposed area to be cleared also forms part of the Greater Bunbury Region Scheme. The notified area falls within the Ludlow/Capel River ecological linkage.

As the area is a relatively small clearing parcel for the purpose of parkland clearing, located some distance from conservation areas, it is unlikely that the proposed clearing will impact on the environmental values of nearby conservation reserves.

Methodology Greater Bunbury Region Scheme - Bulletin 1108
GIS Databases:
- CALM Managed Land and Waters - 01/07/05

(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 area has been mapped as a low salinity risk and with no known acid sulphate soils or risk thereof.

The proposed clearing area is relatively small in size and most mature trees are intended to be kept. Given this plus the reasonably large vegetated buffer between the clearing and any watercourse, it is unlikely that impacts to surface or underground water are likely to occur.

Methodology GIS Databases:
- Geomorphic Wetlands, Swan Coastal Plain
- Hydrography linear (hierarchy) - DOW
- Acid Sulfate Soil Risk Map, Swan Coastal Plain - DEC
- Groundwater Salinity, Statewide - DOW

(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 unlikely to have effect on flooding, or flooding impacts, due to the size of the area proposed to be cleared.

Methodology

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

Comments

A representative from the Shire explained that under the Capel Town Planning Scheme no.7 any clearing in a special rural zone for purposes other than firebreaks, building envelopes and driveways, is not allowed without the consent of the Shire. The proponent has gained this approval (DOC54114).

The proposed clearing area lies within an Ecological Linkage as defined by the Greater Bunbury Region Scheme - Bulletin 1008.

The area will be irrigated to maintain pasture, however soils on site are transmissive and any possible drainage into nearby watercourses is filtered for some distance by dense vegetation.

There is a slight risk of wind erosion given the fine sands found on the property, however as the land will be irrigated for pasture after clearing the risk will be slight and short term.

A submission was received by Capel LCDC opposing to the clearing in relation to (a), (b), (c) and (g) of the regulations. Further information was given in relation to principle (g) stating that weed invasion would be increased in neighbouring areas.

The proposed clearing is not in a RIWI ACT, CAWSA or PDWSA area.

Methodology

4. Assessor's comments

Comment

The area proposed to be cleared has been assessed and it was found that Principle (b) maybe at variance to the clearing. All other principles are not likely to be at variance.

5. References

- Brown, A, Thomson-Dans, C, Marchant, N, 1998, Western Australia's threatened flora, Department of Conservation and Land Management.
- 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.
- Environmental Protection Authority, 2003, Greater Bunbury Region Scheme - Bulletin 1108, Appendix 4
- 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)

