



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

### PERMIT DETAILS

Area Permit Number: 3812/1  
File Number: 2010/004305  
Duration of Permit: From 30 November 2012 to 30 November 2014

### PERMIT HOLDER

James William Deale

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 802 on Deposited Plan 43370, Ludlow

### AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 1.5 hectares of native vegetation within the area hatched yellow on attached Plan 3812/1.

### CONDITIONS

#### **Dieback and weed control**

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) shall only move soils in *dry conditions*;
- (c) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (d) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

### DEFINITIONS

The following meanings are given to terms used in this Permit:

*dieback* means the effect of *Phytophthora* species on native vegetation;

*dry conditions* means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

*fill* means material used to increase the ground level, or fill a hollow;

*mulch* means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation; and

*weed/s* means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

Handwritten signature of Roxane Shadbolt in black ink.

Roxane Shadbolt

A/MANAGER

NATIVE VEGETATION CONSERVATION BRANCH

*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

8 November 2012

# Plan 3812/1



## LEGEND

- Cadastre
- Firehold
- Crown Reserve
- State Forest / Timber Reserve
- Marine Park
- Crown Lease
- Lease / Reserve
- Lease on State Forest / Timber Reserve
- Public Roads
- Unallocated Crown Land
- Water
- ✓ Road Centrelines
- ✓ Clearing Instruments
- Areas Approved to Clear
- Basselton 50cm Orthomosaic - Landgate 2007

\* Project Data. This data has not been quality assured. Please contact map author for details.



0 1000 2000 m

Scale 1:5877

(Approximate when reproduced at Letter)

Geocentric Datum Australia 1994

Note: the data in this map have not been checked for accuracy. They may result in geometric distortion or misrepresentation of boundaries.

R. Shadobit 8/11/12  
Date

Roxanne Shadobit

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation  
Our environment, our future  
WA.Crem/Coygr 282



## 1. Application details

### 1.1. Permit application details

Permit application No.: 3812/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: James William Deale

### 1.3. Property details

Property: LOT 802 ON PLAN 43370 (House No. 433 TUART LUDLOW 6280)  
Local Government Area: Shire of Capel  
Colloquial name:

### 1.4. Application

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

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 8 November 2012

## 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 1000 consists of Medium forest with Jarrah-Marri Low woodland and Banksia Low forest and Teatree ( <i>Melaleuca</i> spp) (Shepherd et al, 2001).	This application proposes to clear 1.5 hectares of native vegetation for the purpose of centre pivot irrigation for turf production. The vegetation is in a completely degraded (Keighery, 1994) condition.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	The vegetation clearing description and condition were determined from a site inspection (DEC, 2010a).

## 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 vegetation under application is parkland cleared, comprising of individual *Melaleuca* species and *Eucalyptus rudis* over non-native grass species. The vegetation is in a completely degraded (Keighery, 1994) condition (DEC, 2010).  
  
Given the above and the low species diversity of the vegetation under application, the vegetation applied to be cleared is not considered to comprise a high level of biodiversity.  
  
Therefore the clearing as proposed is not likely to be at variance to this Principle.

**Methodology** **References:**  
- DEC (2010)  
- Keighery (1994)  
  
**GIS Databases:**  
- SAC Bio Datasets (16/07/2010)

### (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**  
There are nine fauna species of conservation significance recorded within the local area (10km radius), the closest being the Quenda (*Isodon obesulus fusciventer*, P5) which was recorded approximately 1km east of the applied area. Given the absence of understorey within the applied area, the vegetation under application is not considered likely to provide suitable habitat for Quenda or other ground dwelling fauna species.

The Carnaby's cockatoo (*Calyptorhynchus latirostris*), listed as 'rare or likely to become extinct' under the Wildlife Conservation Act 1950, has been recorded approximately 1.7km north of the applied area and is known to inhabit Eucalyptus and Banksia woodlands foraging on the seeds and nectar from flowers of Eucalypts, Banksia, Grevillea and Hakea species (Burbidge, 2004).

Given the vegetation under application is predominantly Melaleuca species and scattered Eucalyptus rudis, it is not considered likely to comprise significant habitat for this species.

Given the completely degraded (Keighery, 1994) condition of the vegetation under application and the proposed clearing is limited to individual Melaleuca and Eucalyptus trees, it is not considered likely to comprise significant habitat for indigenous fauna.

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

**Methodology**    References:  
- Burbidge (2004)  
- DEC (2010)  
- Keighery (1994)

GIS Databases:  
- SAC Bio Datasets (16/07/2010)

**(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**  
Twelve rare flora species have been recorded within the local area (10km radius), the closest of which occurs 4.2km away on the same vegetation complex and soil type to that found on site.

Given the distance to the closest mapped rare flora, the completely degraded (Keighery, 1994) condition of the vegetation under application and the lack of understorey, it is not considered likely that the vegetation under application includes, or is necessary for the continued existence of rare flora.

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

**Methodology**    References:  
- Keighery (1994)

GIS Databases:  
- SAC Biodatasets - accessed on 16/07/2010

**(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 occurrences of threatened ecological communities (TEC) within the local area (10km radius) of the proposed clearing. The closest TEC is located approximately 1.7km from the area under application.

The vegetation under application is comprised of individual Eucalyptus rudis and Melaleuca species (DEC, 2010). The vegetation under application is not representative of the mapped TEC.

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

**Methodology**    References:  
- DEC (2010)  
- Keighery (1994)

GIS Database:  
- Pre-European Vegetation  
- SAC Bio datasets accessed 16/07/2010  
- Soils, Statewide DA 11/99

**(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 described as Beard Vegetation Association 1000, of which there is 27.21 per cent of pre-European extent remaining in the Bioregion (Government of Western Australia, 2011).

The area under application is located within the Shire of Capel, which retains 34.46 per cent of its pre-European vegetation (Government of Western Australia, 2012).

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

Although Beard Vegetation Association 1000 retains less than the recommended level of 30 per cent, the vegetation under application is in a completely degraded condition and is therefore not likely to be a significant remnant in an extensively cleared area.

The proposed clearing is not likely to be at variance to this principle.

	Pre-European (ha)	Current extent (ha)	Remaining (%)
IBRA Bioregions			
Swan Coastal Plain	1,501,209	587,889	39.16
Shire of Capel	55,945	19,275	34.46
Beard Vegetation Association 1000	94,175	25,621	27.21

(Government of Western Australia, 2011)

**Methodology**

**References:**

- Commonwealth of Australia (2001)
- DEC (2010)
- Keighery (1994)
- Shepherd (2009)

**GIS Database:**

- Pre-European Vegetation - DA 10/01
- Busselton 50cm Orthomosaic - Landgate 2007

**(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**

The area under application is located within a Multiple Use Wetland with the vegetation on site identified as *Eucalyptus rudis* and *Melaleuca* species (DEC, 2010). These species are commonly associated with swamps and watercourses (Western Australian Herbarium, 1998).

A Conservation Category Wetland and Resource Enhancement Wetland are located approximately 900m southwest and 4km north of the applied area respectively. In addition an Environmental Protection Policy (EPP) Lake is located approximately 25m southeast of the area under application. The proposed clearing is within the 200m buffer of the EPP Lake.

The nearest watercourse is the Ludlow River, located approximately 380m west of the area under application.

The area under application is located within a multiple use wetland, comprises wetland dependent vegetation and is within the buffer of an EPP Lake.

Given the above the proposed clearing is at variance to this Principle.

**Methodology**

**References:**

- DEC (2010)
- Western Australian Herbarium (1998-)

**GIS Databases:**

- EPP, Lakes

- Geomorphic Wetlands (Classification), Swan Coastal Plain
- Hydrography, linear (hierarchy)
- RAMSAR, Wetlands - CALM 14/02/03

**(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 chief soils within the area under application are described as leached sands (Northcote et al, 1960-1968) and well drained sandy and loamy profiles. These soils generally have a high risk of wind erosion and a low risk of water erosion due to high infiltration rates. The area under application is a proposed turf farm and the grassed surface will help to mitigate the effect of wind erosion.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be nutrient export in poorly drained areas. A report prepared by the Department of Agriculture and Food Western Australia (DAFWA) in 2004 for a previous application covering the proposed site advised that given the poor condition of the vegetation, the proposed clearing is unlikely to have any significant impact on land degradation (DAFWA, 2004).

Given the above, the proposal is not likely to be at variance to this Principle

**Methodology**      **References:**  
 - DAFWA (2004)  
 - Northcote et al (1960-1968)

**GIS Databases:**  
 - Salinity Risk LM 25m - DOLA 00  
 - 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**  
 There are numerous areas reserved for conservation purposes within a 10km radius of the area under application, the closest being the Ludlow State Forest and the Coollup State Forest which are located 400m west and 275m east of the applied area respectively.

Given the distance to these conservation areas and that the vegetation under application does not form part of a corridor linkage to the identified reserves, clearing of the vegetation under application is not likely to have an impact on the environmental values of any adjacent or nearby conservation areas.

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

**Methodology**      **GIS Databases:**  
 - CALM Regional Parks  
 - DEC Tenure  
 - Register of National Estate

**(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 closest watercourse is the Ludlow River which is located approximately 380m west of the area under application. The closest wetlands include an Environmental Protection Policy (EPP) Lake and a Conservation Category Wetland (CCW) which is located approximately 25m southeast and 900m southwest of the applied area respectively. The area under application is situated within the Vasse Wonnerup Estuary Catchment.

The area under application is located within a Multiple Use Wetland comprising Melaleuca and Eucalyptus rudis and forms a 200m buffer between the existing turf farm and the identified EPP Lake. The minimum buffer distance currently required to protect wetlands is 50 metres and the clearing as proposed is within the secondary zone of influence (within 200m of mapped wetlands), which can adversely impact the ecological processes and functions within the wetland (Hill et al, 1996).

A report prepared by DAFWA (2004) for a previous application covering the proposed site advised that nutrient export may pose a problem in poorly drained areas as there is the potential for nutrients to be exported via overland flow before they become incorporated into the soil. Given the application area is located within a Multiple Use Wetland and within 25m of an EPP Lake the proposed clearing may result in the deterioration of surface water.

Although there is generally a low salinity risk associated with these soils, salinity risk mapping has identified the majority of the area under application as having a high salinity risk, with groundwater salinity in the local area recorded at 3000-7000mg/L (moderately saline). DAFWA (2010) has advised that the proposed clearing is unlikely to have any impact on salinity.

The proponent is aware of the potential for nutrient export through surface water run-off to impact upon the nearby EPP Lake and wetlands and has supplied Surface and Ground Water Monitoring Reports, measures to manage surface drainage and a Fertiliser Management Plan (Slade Ag Tech, 2010, 2012).

DEC considers that the nutrient levels recorded within these reports are at an acceptable level and the measures outlined to reduce nutrient exportation into surface water and groundwater are sufficient to mitigate the risk of nutrient run-off into the EPP Lake and surrounding wetlands and watercourses.

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

**Methodology**

**References:**

- DAFWA (2004)
- DAFWA (2010)
- EPA (2008)
- Hill (1996)

**GIS Databases:**

- EPP, Lakes
- Geomorphic Wetlands (Classification), Swan Coastal Plain
- Groundwater Salinity, Statewide
- Hydrographic Catchments - Catchments - DOW - 01/06/07
- Hydrography linear (hierarchy) - DoW 13/7/06
- Public Drinking Water Source Areas (PDWSAs)
- Salinity Mapping LM 25 - DOLA 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**

The area under application is located approximately 25m northwest of an Environmental Protection Policy (EPP) Lake and 380m east of the Ludlow River, at an elevation of 10-15m metres.

Given the vegetation under application comprises individual Melaleuca and Eucalyptus trees, the proposed clearing it is not considered likely to impact on peak flood height or duration.

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

**Methodology**

**References:**

- Department of Agriculture

**GIS Databases:**

- Geomorphic Wetlands (Classification), Swan Coastal Plain
- Hydrography linear (hierarchy) - DoW 13/7/06
- Topographic Contours, Statewide

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

**Comments**

The applicant previously submitted a proposal to clear up to 110 trees/10 hectares of native vegetation within Lot 57 on Deposited Plan 230891 and Lot 2844 on Deposited Plan 25497 (now Lot 802 on Deposited Plan 43370) Tuart Drive, Ludlow for the purpose of establishing a turf farm. Permit 119/1 for 10ha was issued on 3 November 2004.

The application of fertilizers on the turf farm is likely to increase the risk of nutrient export, in particular nitrogen. According to the Environmental Guidelines for the Establishment and Maintenance of Turf and Grassed Areas, a 200m buffer is the minimum recommended separation distance to a Conservation Category Wetland and Environmental Protection Policy (EPP) Lake (Department of Environmental Protection, Water and Rivers Commission, 2001). The area under application is located approximately 25m northwest of an Environmental Protection Policy (EPP) Lake.

The proponent is aware of the potential for nutrient export through surface water run-off to impact upon the nearby EPP Lake and wetlands and has supplied Surface and Ground Water Monitoring Reports, measures to manage surface drainage and a Fertiliser Management Plan (Slade Ag Tech, 2010, 2012).

DEC considers that the nutrient levels recorded within these reports are at an acceptable level and the measures outlined to reduce nutrient exportation into surface water and groundwater are sufficient to mitigate the risk of nutrient run-off into the EPP Lake and surrounding wetlands and watercourses.

Lot 802 is zoned Rural under the Town Planning Scheme and is zoned Rural under the Greater Bunbury Regional Scheme.

Planning consent from the Shire of Capel has been given for the proposed turf farm expansion (Shire of Capel, 2012).

The Department of Water (2011) advised that an existing groundwater licence occurs on Lot 802, and an additional 2.8 hectares can be irrigated within this existing licence of 270,000kL. Therefore no further allocation of water is required.

#### Methodology

#### References:

- Department of Water (2011)
- Shire of Capel (2012)
- Waters and Rivers Commission (2001)
- Slade Ag Tech (2010)
- Slade Ag Tech (2012)

#### GIS Databases

- Aboriginal Sites of Significance
- Greater Bunbury Regional Area
- Town Planning Scheme Zones

## 4. References

- Burbidge, A. (2004) Threatened Animals of Western Australia, Department of Conservation and Land Management, Perth, Western Australia.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2010) Site Inspection Report for Clearing Permit Application CPS 3812/1, Deale Site inspection undertaken 6 August 2010. Department of Environment and Conservation, Western Australia (DEC ref. A324018).
- Department of Agriculture (2004) Land degradation assessment report for CPS 119/1. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture (DEC ref: A327401).
- Department of Agriculture (2010) Additional information for CPS 3812/1. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture (DEC ref: A351029).
- Department of Environmental Protection and Waters and Rivers Commission (2001) Environmental Guidelines for the Establishment and Maintenance of Turf and Grassed Areas.
- Department of Water (2011) Additional information for CPS 3812/1 - Mr James W. Deale. (DEC ref: A458072).
- EPA (1999) Review of the Environmental Protection (Swan Coastal Plains Lakes) Policy 1992, Environmental Protection Authority, Western Australia.
- EPA (2003) Greater Bunbury Region Scheme. Bulletin 1108. Environmental Protection Authority, Western Australia.
- EPA (2008) Environmental Guidance for Planning and Development - Guidance Statement No. 33.
- Hill, A.L., Semenuik, C. A, Semenuik, V. Del Marco, A. (1996) Wetlands of the Swan Coastal Plain. Volume 2b, Wetland mapping, classification and evaluation. Wetland Atlas. WRC and DEP. Perth WA.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western 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.
- Shepherd, D.P. (2009) 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.
- Shire of Capel (2012) Additional Information for CPS 3812/1. Planning Consent (DEC Ref A565374).
- Slade Ag Tech (2010) Monitoring Report for CPS 3812/1 - Mr James W. Deale. (DEC ref: A454737).
- Slade Ag Tech (2012) Revised Monitoring Report and Fertiliser Plan for CPS 3812/1 - Mr James W. Deale. (DEC ref: A527987).
- Water and Rivers Commission (2001) Position Statement: Wetlands, Water and Rivers Commission, Perth.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed August 2012)



## 5. 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)