

## 1. Application details

### 1.1. Permit application details

Permit application No.: 119/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: **James William Deale - Trustee - James William Trust**  
Postal address: Po Box 271 Busselton WA 6280  
Contacts: Phone: 9754 2462  
Fax: 9754 2464  
E-mail: info@traveljoy.com.au

### 1.3. Property details

Property: Lot 1133 on Plan 103535 (Lot No. 1133 Bussell Ludlow 6280)  
Lot 57 on Plan 230891 (Lot No. 57 Bussell Ludlow 6280)  
Lot 2844 on Plan 254971 (Ludlow 6280)

Colloquial name:

Local Government Area: Shire of Capel

Formatted

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
10	50	Mechanical Removal	Horticulture

## 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
Soil-landscape mapping of Tille and Lantzke (1990) shows the area to be cleared mostly occurring on the Cokelup Subsystem where the Abba Plain system abuts the Spearwood system (Ludlow subsystem). Three map units are shown: CKw - Cokelup wet clayey flats : Paperbark-flooded gum woodland and barley grass flats. CKv - Cokelup vales: Paperbark-flooded gum woodland. LD1 - Ludlow flats: Tuart-peppermint forest and woodland.	Beard 1000: Mosaic; Medium forest, Jarrah and/or Marri/ Low woodland, banksia/ Low forest, tea tree (Melaleuca spp.). Mattiske Consulting Ludlow Lw Lv	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	No site visit was undertaken by the Department of Agriculture or Department of Environment representatives.  A consultant's report on the soils and capability (Wise 2004) was provided by the proponent. Soil samples were taken from the property and visually and hand textured examined at the Bunbury Office of the Department of Agriculture on a previous occasion.

## 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 at variance to this Principle**  
No information was provided to enable an in depth assessment against this Principle. Given the condition of the vegetation, it is highly unlikely that the proposal would be at variance with this Principle.

**Methodology**

### (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**  
No information was provided to enable an in depth assessment against this Principle. However, given the condition of the vegetation, it is unlikely to provide a significant habitat for fauna.

**Methodology**

**(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, significant flora.**

**Comments Proposal is not likely to be at variance to this Principle**

There are thirty three Declared Rare (DRF) and Priority Listed flora species in the local area (defined as a 10km radius).

There are ten DRF (extant taxa), five Priority 1 species, three Priority 2 species, seven Priority 3 species, seven Priority 4 species and 1 species with No Data.

The closest specimen was recorded ~500m southwest of the proposed clearing.

Given the condition of the vegetation, it is unlikely that the area is significant for flora.

**Methodology** CALM Declared Rare and Priority Flora List databases.

Formatted

**(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant ecological community.**

**Comments Proposal is not likely to be at variance to this Principle**

There are 14 Threatened Ecological Communities within the local area (defined as a 10km radius), the closest 2.8km southeast of the proposed clearing. There are five Threatened Plant Communities in the local area, the closest 4.1km from the proposed clearing.

There is unlikely to be an impact on TEC given the degraded nature of the vegetation.

**Methodology** CALM Threatened Ecological Community database; DEP Threatened Plant Communities database.

**(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**

The property has approximately 8.2 hectares (13%) of native vegetation remaining, and if implemented, this clearing proposal will leave 6.7% remaining.

Beard vegetation unit 1000 has been extensively cleared, and only 24.6% of the pre-European extent remains. Additionally, two vegetation complexes (as identified by Mattiske consulting) have already become extinct.

However, the vegetation proposed for clearing appears to be paddock trees with no intact vegetation communities remaining.

	Pre-European area (ha)	Current extent (ha)	Remaining %*	Conservation status**	Reserves/CALM-managed land, %
IBRA Bioregion					
-Swan Coastal Plain	1 498 297***	626 512	41.8	Depleted	
Shire - Capel	55 869	20 059	35.9	Depleted	
Beard Unit 1000	119 340	29 396	24.6	Vulnerable	0
Mattiske Consulting					
CO1 Ludlow	1 869	0	0	Presumed extinct	
Lv	-	-	-	Presumed extinct	

\* (Shepherd et al. 2001)

\*\* (Department of Natural Resources and Environment 2002)

\*\*\* Within the Intensive Landuse Zone

**Methodology** Mapping based on GIS (Department of Natural Resources and Environment 2002; EPA 2000; Havel and Mattiske 2002; Mattiske Consulting 1998; Shepherd et al. 2001)

**(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 proposed clearing is almost entirely within a Palusplain Geomorphic wetland. This wetland is classified as multiple use. Additionally the remaining trees are in poor health (Wise, 2004). Therefore, while the proposal is at variance with this Principle, the condition of the vegetation is degraded and clearing is unlikely to have a significant additional impact on this wetland.

A RAMSAR wetland (Vasse Wonnerup System) is situated 2.8km west of the proposed clearing. An ANCA wetland (McCarleys Swamp or Ludlow Swamp), an Environmentally Sensitive Area, lies 689m NE of the proposed clearing. Additionally, another ANCA wetland (Vasse Wonnerup) lies 2.4km to the west.

There is a major perennial watercourse (5th order) 35m west of the proposed clearing.

There are 23 EPP Lakes within the local area (defined as a 10km radius). The closest lake was 283m east of the proposed clearing.

**Methodology** CALM ANCA wetlands database; DEP EPP lakes database; DoE Environmentally Sensitive Areas database; DoE Geomorphic Wetlands (Mgt Categories), SCP databases; DoE Hydrography Linear databases; Wise (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 at variance to this Principle**

While some areas of salinity have been identified on the Cokelup subsystem, Wise (2004) found salinity levels on the property to be low (EC 7 mS/m). It is highly unlikely that the removal of the scattered trees would have any significant impact on salinity.

There is a low risk (class 2) of shallow acid sulphate soils (or PASS) within the proposed clearing area and in the north west corner of the proposed clearing, there is an occurrence of no known risk (class 3) shallow acid sulphate soils (or PASS).

Most of the sites examined by John Wise were well to relatively well drained when examined in the middle of July. This is due to their slightly elevated position. Two poorly drained depressions were identified; one of these appears to coincide with part of the northern area proposed for clearing.

According to the DEM generated slope maps most of the proposed cleared has slope gradients of 0-2%, with a few small areas of 2-3%. There is unlikely to be any significant erosion on these areas. The sandy topsoils appear to have a high organic matter content and are not likely to be especially prone to wind erosion. While there is always some risk with sandy soils, this can be overcome with suitable management.

While the broad scale mapping of Tille and Lantzke would suggest that much of the property consists of Cokelup wet flats with a poor capability for agricultural uses, the consultant's report (Wise, 2004) demonstrates that the soils in these areas are different. Wise concludes that most of the property is suitable for grazing and turf farming, with some areas suited to year round vegetable production. The soil profile descriptions in the report and the soil samples viewed at the Bunbury Office provide support for this conclusion, with relatively well drained sandy and loamy profiles covering much of the property.

The removal of the trees is unlikely to have any significant impact on land degradation. Only scattered trees are present and Wise reports these are in poor condition.

**Methodology** DAWA report (2004); DoE Acid Sulfate Soil Risk Map, SCP; DOLA salinity risk databases; Wise (2004).

**(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**

The Ludlow Tuart Forest (System 1) lies 100m to the west and 1.9km north of the proposed clearing.

The Ludlow State Forest (identified as an Environmental Sensitive Area as it is a Registered National Estate - Ludlow Wonnerup Area) is located 95m west of the proposed clearing.

The Coolilup State Forest is situated 167m south-east of the proposed clearing.

Given the degraded state of the vegetation, clearing is unlikely to impact on other conservation areas.

**Methodology** CALM Managed Lands and Waters Database; DEP System 1-5 and 7-12 Areas database; DoE Environmentally Sensitive Areas Database; EA Register of National Estate database.

**(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 is within Vasse Wonnerup Estuary (Busselton Coast), Hydrographic Catchment.

The risk of nutrient export is largely related to waterlogging. The brown coloured loamy sands and sandy loamy

topsoils should have reasonably good phosphorous retention properties. Wise (2004) reports a PRI value of 108 from a composite of topsoil samples. This is a high value. The clayey subsoils have a similar PRI (96) and would be effective at reducing the leaching of nitrogen.

The main risk of nutrient export would be in areas subject to waterlogging. On the heavier soils there is some potential for nutrients to be exported via overland flow before they become incorporated into the soil. There may also be some possibility of nitrogen loss in lateral through flows through the sandy topsoils above the clay horizon. The low slope gradients would tend to reduce these potential nutrient losses.

The main degradation concern would relate to nutrient export in areas of poor drainage. While the poorly drained depressions identified by Wise would not be suitable locations for the turf farm, there is sufficient land available on the elevated areas in the south and north-west of the property. With suitable management, a turf farm on these well drained soils should not present significant risk of nutrient export.

The adoption of good fertiliser management practices would be necessary. These practices should include regular testing of soil nutrient levels and the application of fertilisers in small, regular doses (eg. through fertigation). A well designed irrigation system would also help reduce the risk of nutrient leaching as over application of water would increase the risk of waterlogging and nutrient leaching. Consideration could also be given to increasing the width of the vegetative buffer along the Ludlow River and ensuring that any artificial drainage does not increase flows into the river.

**Methodology** DAWA report (2004); DoE Hydrographic Catchments Database.

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.**

**Comments** **Proposal is not at variance to this Principle**  
Due to its scale, flooding impacts are unlikely to occur as a result of the proposed clearing.

**Methodology**

**(k) Planning instrument or other matter.**

**Comments** No comment made.

**Methodology**

**4. Assessor's recommendations**

The recommendations of the Department of Environment to the CEO of the Department should be made consistent with the outcomes of the assessment by each of the agencies. Any conditions on the approval should also be outlined. These may be developed in consultation with such other agencies as required.

Purpose	Method	Applied area (ha)	Applied trees	Decision	Comment / recommendation
Horticulture	Mechanical Removal	10	50	<b>Grant</b>	Recommend that the permit is granted.  The remaining native vegetation associations in this area appear to have been previously cleared (Mattiske being the most up to date indicates that the Ludlow association has 0% remaining) resulting in scattered paddock trees. The geomorphic wetland on the property is multiple use and has been cleared of understorey for farming purposes in the past.  It is recommended that you fence and replant native species along the river to the west to provide a buffer to the proposed activities on the property.

**5. References**

Department of Agriculture WA (2004) Application for Clearing Permit CPS 119/1 Sussex Location 57on Deposited Plan 230891, James Deale. Unpublished Report. Department of Environment Reference: TRIM SWO 22344

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.

EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority.

Havel, J.J. and Mattiske Consulting Pty Ltd (2002) Review of management options for poorly represented vegetation complexes, Conservation Commission.

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.

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, BJ (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.

Tille, P.J. and Lantzke, N.J. (1990) Busselton-Margaret River-Augusta land capability study. Western Australian Department of Agriculture, Land Resources Series No. 5

Wise, J.L. (2004). Agricultural Assessment. Proposed Lot 302 of Stirling Loc. 1133. Tuart Drive, Wonnerup. Local Authority, Capel. John Wise Consultancy Pty. Ltd.