



## 1. Application details

### 1.1. Permit application details

Permit application No.: 2020/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Ross Millar Jamieson

### 1.3. Property details

Property: LOT 2562 ON PLAN 140419 ( CAPEL 6271)  
 LOT 2562 ON PLAN 140419 ( CAPEL 6271)  
 LOT 4206 ON PLAN 140419 ( CAPEL 6271)  
 LOT 4206 ON PLAN 140419 ( CAPEL 6271)

Local Government Area: Shire Of Capel

Colloquial name: Lot 20 Jamieson Rd

### 1.4. Application

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

## 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
<p>The purpose of clearing native vegetation within the application area is for cropping. Aerial and site visit (2007) photographs indicate that the vegetation condition is completely degraded (Keighery, 1994). The vegetation structure consists of isolated trees and shrubs, with no native understorey.</p> <p>Beard Vegetation Associations:</p> <p>1182 Medium woodland; Eucalyptus rudis &amp; Melaleuca raphiophylla</p> <p>Hedde Vegetation Complex:</p> <p>Swan River complex Fringing woodland with localised occurrences of low open forest.</p>	<p>Aerial and site visit (2007) photographs indicate that the vegetation condition is completely degraded (Keighery, 1994). The vegetation structure consists of isolated trees and shrubs, with no native understorey.</p>	<p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)</p>	<p>Vegetation condition was determined from aerial photographs and a site visit (2007)</p>

## 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 under application is to be cleared for the purpose of cropping on Lot 20 Jamieson Road. Aerial and site visit (2007) photographs indicate that the vegetation condition is completely degraded (Keighery, 1994) with limited scope for regeneration without intensive management. The local area (5km) appears to have undergone previous clearing possibly in association with agricultural activities. The vegetation structure consists of isolated

trees and shrubs, with no native understorey (site visit, 2007).

Given that the vegetation is relatively isolated and degraded with obvious signs of disturbance, the vegetation within the application area is unlikely to be representative of vegetation comprised of outstanding biodiversity in the Bioregion or local area.

**Methodology** Keighery (1994)  
Site visit (2007)  
GIS Database:  
- Busselton 50cm Orthomosaic - DLI 04

**(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 18 recorded sightings of rare or endangered fauna within a 5km radius from the proposed clearing site. They include *Pseudocheirus occidentalis* (Western Ringtail Possum), *Geotria Australis* (Pouched Lamprey), *Calyptorhynchus banksii naso* (Forest Red-tailed Black Cockatoo), *Macropus irma* (Western Brush Wallaby), *Isodon obesulus fusciventer* (Quenda), *Phascogale tapoatafa ssp.* (Brush-tailed Phascogale) and *Hydromys chryogaster* (Water-rat).

Of the fauna sighted within 2.5km from the application area, *H. chryogaster* and *G. Australis* were limited to watercourses and the 12 *M. irma* were recorded in the Capel Nature Reserve, which consists of vegetation that would be highly preferred by *M. irma* than that within the proposed clearing area.

Within the application area there is no native understorey vegetation present, therefore ground dwelling fauna such as *I. obesulus fusciventer* which require groundcover for foraging and protection would not likely be present.

The absence of peppermint trees in the proposed clearing area means that it is highly unlikely that *P. occidentalis*, which require peppermint trees as their primary habitat and food source, would be found within the application area (Western Ringtail Possum, 2007).

The aboreal Phascogales tend to reside in *Eucalyptus marginata* (Jarrah) and *Corymbia calophylla* (Marri). The main tree present within the proposed clearing area is *Eucalyptus rudis* (Flood Gum), given this, it would be unlikely that Phascogales are present (Phascogale, 2007).

The clearing of 1.5 ha of native vegetation will not remove any ecological linkages for the endangered fauna within the area; furthermore the vegetation condition of the proposed clearing area is classified as completely degraded (Keighery, 1994), with much evidence of human disturbance.

Given the isolated and degraded condition of the proposed clearing it is unlikely it is necessary for the maintenance of, a significant habitat for indigenous fauna.

**Methodology** Western Ringtail Possum (2007)  
Phascogale (2007)  
GIS Database:  
- Busselton 50cm Orthomosaic - DLI 03 (image)  
- Sac Bio datasets 231107

**(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 41 known records of Declared Rare and Priority Flora within a 5km radius of the proposed clearing site. They include the priority four classified *Jacksonia sericea*, *Aponogeton hexatepalus*, priority three *Rhodanthe pyrethrum* and the declared rare *Drakae elastica*.

The closest known record is *J. sericea*, located approximately 1km from the application area, and occurs on different soil and vegetation type as the proposed clearing area.

Recorded sightings of DRF within the local area were all within different vegetation complexes and on different soil types (Northcote et al., 1960) to the application area. Given this, and the disturbed and isolated location of the vegetation under application, it is unlikely to be necessary for the continued existence of flora.

**Methodology** Northcote et al., (1960)  
GIS Layer:  
- Busselton 50cm Orthomosaic - DLI 03 (image)  
- Sac Bio datasets 231107

**(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**  
Two threatened ecological communities have been recorded within 5km radius of the proposed clearing area. They are:

CAPEL05 - Eucalyptus calophylla woodlands on heavy soils of the Southern Swan Coastal Plain and  
Plant01 - Shrublands on dry clay flats

They are both found in the Southern River vegetation complex (heavy soils - clay), which differs from the Swan Complex (sandy acidic soils) of the proposed clearing application (Northcote et al., 1960).

Given the above, and the isolated and degraded condition of the proposed clearing, it is unlikely that the vegetation under application is necessary for the maintenance of a threatened ecological community.

**Methodology** Northcote et al., (1960)  
GIS Layer:  
- Busselton 50cm Orthomosaic - DLI 03 (image)  
- Sac Bio datasets 231107

**(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 (ha)*	Current Extent Remaining (ha)*	Current Extent Remaining (%)*	Conservation Status**	% Pre-European Extent in IUCN 1 - 4
<b>IBRA Bioregion:</b>					
<b>Swan Coastal Plain</b>	1,501,211	579,227	38.6	Depleted	24.1
<b>Shire: Capel***</b>	55,721	19,085	34.3	Depleted	7.7
<b>Beard Unit:</b>					
1182	23,437	6,552	28.0	Vulnerable	0.5
<b>Heddle Complex:</b>					
Swan Complex	15,783	2,454	15.6	Vulnerable	

\*Shepherd et al. 2001

\*\*Department of Natural Resources and Environment 2002

\*\*\*Shepherd et al. 2005

The proposed clearing area is within the Swan Coastal Plain IBRA Region, where the area of vegetation remaining 38.6%. Within the Shire of Capel 34.3% of pre-European vegetation remains (Shepherd 2001). These percentages are higher than the National Objectives Targets for Biodiversity Conservation, which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment, 2002; EPA, 2000).

Beard Unit 1182 and Heddle Complex fall within the conservation status of vulnerable and below 30%. These have a remaining percentage of 28% and 15.6% respectively. Noting this, the proponent advised DEC staff that only the native regrowth within the application area is to be cleared (DEC Trim Ref: DOC42229).

Given the above, and the small area and condition of the vegetation within the proposed clearing area it is unlikely that the vegetation to be cleared is significant as a remnant of vegetation in an area that has been extensively cleared.

**Methodology** DEC Trim Ref: DOC42229  
Department of Natural Resources and Environment (2002)  
EPA (2000)

Shepherd et al. (2001)  
Shepherd et al. (2005)  
GIS Database:  
- Pre-European Vegetation - DA 10/01  
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00  
- Heddl vegetation complexes - DEP 21/06/95

**(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 may be at variance to this Principle**

The proposed clearing is located 140m west of a major perennial watercourse (Capel River), 130m east of a minor perennial watercourse and within the western tip of the proposed clearing area a minor perennial watercourse meanders.

Additionally, there are a total of 106 wetlands within a 5km radius of the proposed clearing area, one, a palusplain, on which the clearing area is located on. 15 Environmental Protection Policy (EPP) classified lakes are situated within the 5km radius; they range from 1 to 5kms from the proposed clearing area.

However, given the vegetation is completely degraded, it is not likely to have a significant riparian function.

**Methodology** GIS Layer:  
- Busselton 50cm Orthomosaic - DLI 03 (image)  
- Hydrography, linear - DOE 1/2/04 (Hyd-type)  
- EPP Lakes - DEP 1/12/92  
- Geomorphic wetlands (classification) Swan Coastal Plain - DEC (Classification)

**(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 topography of the region is relatively flat with an elevation rising from 15-20 AHD, receiving a mean annual rainfall of 900mm. Groundwater salinity has been mapped between 500-1000mg/L TDS (Total Dissolved Solids) giving it a low rating.

There is a moderate to low risk of Acid Sulfate Soils (ASS) occurring within the proposed clearing area. Chief soils on the plains are sandy acidic yellow mottled soils (Northcote et al., 1960).

Given the small area proposed to be cleared relative to the above information, the proposed clearing is unlikely to cause appreciated land degradation in the form of wind or water erosion, water logging or salinisation.

**Methodology** Northcote et al., (1960)  
GIS Layer:  
- Busselton 50cm Orthomosaic - DLI 03 (image)  
- Acid Sulfate Soil risk, Swan Coastal Plain - DEC (Risk class)  
- Groundwater Salinity, Statewide - DOW  
- Topography contours, statewide - DOLA 12/09/02  
- Rainfall, Mean Annual - BOM 30/09/01

**(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 a 5km radius of the proposed clearing area, there are three conservation reserves. Capel Nature Reserve is located 2.5kms south west; Tuart Forest National Park, 4kms west; and a nature reserve 1.5km from the application area.

Given the small application size and condition of the vegetation to be cleared it is unlikely that the clearing is likely to have an impact on the environmental values of any nearby conservation areas.

**Methodology** GIS Layer:  
- Busselton 50cm Orthomosaic - DLI 03 (image)  
- CALM managed lands and waters - CALM 1/07/08 (category)

**(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 site lies within the Capel River catchment area. The region is of low relief (15-20m AHD) and has an annual rainfall of 900mm. A few surface waterbodies are located in close proximity to the application site. Capel River is 140m from the clearing and a minor perennial watercourse is within the application area. Given the proximity to surface water, increased nutrient loads due to future landuse (cropping) may influence the functioning of these watercourses. Though riparian vegetation is evident along the banks of the Capel, which will aid in filtering nutrients prior to reaching the river.

Given the above, the clearing of native vegetation is not likely to cause deterioration in the quality of surface water or groundwater within the local area.

**Methodology GIS Layer:**

- Busselton 50cm Orthomosaic - DLI 03 (image)
- Hydrography catchments - catchment DOE 23/03/05
- Rainfall, Mean Annual - BOM 30/09/01
- Topography contours, statewide - DOLA 12/09/02

**(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 hydrogeology of the area is predominately surficial sediments - shallow aquifers, which can assist in intensifying flooding if an abundance of vegetation is cleared. Given though, the small scale of clearing, it is unlikely it will cause or exacerbate flooding within the local area.

**Methodology GIS Layer:**

- Busselton 50cm Orthomosaic - DLI 03 (image)
- Hydrogeology, statewide - DOW

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

**Comments**

The area under application is within the Capel River and tributaries RIWI area.

A submission from the Capel LCDC (2007) was received advising that the proposal conflicts with the aims of the Capel River Action Plan, which encourages the retention and revegetation of areas in close proximity to the river. Furthermore, the purpose of the clearing (cropping) involves the use of fertilisers that can enter the river and increase the phosphorus levels. These issues have been addressed in principles (f) and (i).

There is a Native Title Claim (Gnaala Karia Booja) over the proposed clearing area. The Department of Environment and Conservation's advertising of the application in the West Australian Newspaper constitutes legal notification of the Native Title representative body for the purpose of the future act procedures under the Native Title Act 1993.

The proponent advised DEC officers on 9/10/07 that he does not wish to blanket clear the area and will leave the larger trees. He only needs to clear the regrowth. TRIM Ref: DOC42229

**Methodology**

Capel LCDC (2007)  
Trim Ref: DOC42229

GIS Layer:  
Native Title  
RIWI

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Cropping	Mechanical Removal	1.5	The assessable criteria have been addressed and the proposal may be at variance to principle (f) and not likely to be at variance to all other principles.	

**5. References**

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.
- 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.
- Phascogale (2007). Information on the Phascogale. Department of Environment and Conservation. Western Australian Government. Sited on 5/11/07 at [www.naturebase.net](http://www.naturebase.net)
- 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.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001a) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia (updated 2005).
- Site visit 2007. Department of Environment and Conservation 2007. Western Australian Government. TRIM Ref: DOC42229
- Western Ringtail Possum (2007). Species Profile and Threats Database. Department of the Environment and Water Resources. Australian Government. Sited on 5/11/07 at [www.environment.gov.au](http://www.environment.gov.au)

## 6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
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 DoE)