



## 1. Application details

### 1.1. Permit application details

Permit application No.: 187/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: MR Rodney Caporn T/A Huntley Park Farm

### 1.3. Property details

Property: LOT 3121 ON PLAN 119482 ( CHANGERUP 6394)  
LOT 5273 ON PLAN 135542 ( MOODIARRUP 6393)  
Local Government Area: Shire Of Kojonup & Shire Of West Arthur  
Colloquial name: Caporn and South Moodiarrup Roads, Kojonup

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
	830	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
<p>Vegetation in the area under application consists of two Beard Units and three Mattiske vegetation types being:</p> <p>Beard Unit 4: Medium woodland; marri &amp; wandoo</p> <p>Beard Unit 992: Medium forest; jarrah &amp; wandoo (Eucalyptus wandoo)</p> <p>Mattiske Vegetation types</p> <p>Fa1: Woodland of Eucalyptus marginata subsp. marginata-Eucalyptus wandoo-Corymbia calophylla on uplands with some Eucalyptus astringens on breakaways and some Banksia spp. on sands and gravels in the arid zone.</p> <p>Fa2: Woodland of Eucalyptus wandoo over Acacia acuminata with some Eucalyptus marginata subsp. marginata and Corymbia calophylla on milder slopes with some Eucalyptus rudis on lower slopes in the arid zone.</p> <p>Fa3: Open woodland to woodland of Eucalyptus wandoo with some Corymbia calophylla over Acacia acuminata on steeper slopes in the arid zone.</p>	<p>The vegetation under application is parkland cleared and is/ has been subject to sheep grazing. Species within the proposed clearing area are mainly large trees consisting of predominantly Wandoo and Marri with some stands of Jarrah. Pasture grasses (and weeds) cover the ground amongst patches of bare gravel.</p>	<p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)</p>	<p>Belinda Walker (DoE) and Judith Carter (DoE) undertook initial site visit on 28th October 2004. The proponent Mr Caporn accompanied the officers.</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 at variance to this Principle**

EPA Position Statement No. 2 identifies this area as being significant in terms of biodiversity. This Position Statement states that 'significant clearing of native vegetation has already occurred on agricultural land, and this has led to a reduction in biodiversity and increase in land salinisation. Accordingly, from an environmental perspective any further reduction in native vegetation through clearing for agriculture cannot be supported'. Three vegetation types identified by Mattiske Consulting (1998) and two vegetation types identified by Beard, within the area under application, have an occurrence of less than 30%. Additionally, the application is located in the Shire of Kojonup and West Arthur. The extent of native vegetation in these areas is 15.2% and 29.8% respectively (Shepherd et al. 2001).

However, EPA Position Statement No. 2 also states 'because of the extent of over-clearing in the agricultural area, development of revegetation strategies at a landscape level, including provision of stepping stones, linkages and corridors of native vegetation, should be a priority'. The completely degraded (Keighery 1994) condition of the vegetation, within the area under application, decreases the likelihood of long term survival and regeneration as it consists largely of paddock trees. An equivalent area to be replanted and offset is considered to be a more significant long term contribution to vegetation percentages within the Shire and vegetation types (if appropriate species are selected) than the area under application. The offset for the areas under application will provide stepping stones for ATR areas already within the property and is situated on a watercourse, which may decrease the salinity of this watercourse.

**Methodology**      Shepherd et al. (2001).  
GIS database:  
- EPA Position Statement No. 2 Agriculture Region - DEP 12/00.

#### (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**

The site visit undertaken indicates that the vegetation may provide some habitat for indigenous fauna species, however the existing level of disturbance within the site is likely to limit the habitat value of the vegetation therefore the proposal is not likely to be at variance to this Principle.

**Methodology**      DoE Site Visit (2004)

#### (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**

Lot 5273

There is a DRF specimen, *Rulingia* spp., within the local area (10km radius). There is a Priority 4 specimen, *Villarsia submersa*, within the local area. Both are approximately 7.7km east of the area under application and do not occur on the same Mattiske or Beard vegetation types.

Lot 3121

There is a DRF specimen, *Conostylis drummondii*, within the local area. It is situated 9.9km west, on Beard vegetation type 4, the same as found within the area under application.

The landscape is quite fragmented, with isolated paddock trees being the major vegetation remaining and no continuous vegetated links occur between these flora species and the area under application.

**Methodology**      GIS databases:  
- Declared Rare and Priority Flora List - CALM 13/08/03  
- Mattiske Vegetation - CALM 24/3/98  
- Pre European Vegetation - DA 01/01.

#### (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 at variance to this Principle**

There are no Threatened Ecological Communities or Threatened Plant Communities recorded within the local area (10km radius).

**Methodology**      GIS database:  
- Threatened Ecological Communities - CALM 15/7/03.

**(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 at variance to this Principle**

Three vegetation types identified by Matiske Consulting (1998) and two vegetation types identified by Beard, within the area under application, have an occurrence of less than 30%. EPA Position Paper No. 2 -Agriculture Region - has identified this area as being significant (in terms of biodiversity). The application is located in the Jarrah Forest Bioregion in the Shire of Kojonup and West Arthur. The extent of native vegetation in these areas is 58.7%, 15.2% and 29.8% respectively (Shepherd et al. 2001).

		Pre - European (ha)	Current Extent (ha)	Remaining (%)	Conservation* status	% In reserves/CALM managed land
IBRA Bioregion -Jarrah Forest***	ILZ	4 503 156	2 624 301	58.7	Least Concern	
Shire- Kojonup		292 938	44 482	15.2	Vulnerable	
Shire - West Arthur		282 614	84 226	29.8	Vulnerable	
Beard Unit 4		1 247 834	292 993	23.5	Vulnerable	0
Beard Unit 992		147 246	33 046	22.4	Vulnerable	0
Matiske Consulting						
Fa1 Farrar		15 921	3 343	21	Vulnerable	
Fa2 Farrar		23 449	2 110	9	Endangered	
Fa3 Farrar		17 663	706	4	Endangered	

\* (Shepherd et al. 2001)

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

\*\*\* Within the Intensive Landuse Zone

The total (contiguous) properties owned by the proponent total approximately 325.1 hectares. Of this approximately 39.1% is vegetated, however, most of this is parkland cleared and completely degraded (Keighery 1994) . If implemented, this clearing proposal will leave 31.8% remaining.

The landscape is quite fragmented with isolated paddock trees being the major vegetation remaining in the local area (10km radius).

The proponent has agreed to offset an equivalent area. As the areas under application are parkland cleared, the offset was determined by counting the number of trees in each area with an equivalent area being calculated as one hundred trees per hectare. In the northern area under application (lot 5273) approximately 600 trees are proposed for clearing equalling 6 ha to offset. In the southern area under application (lot 3121) approximately 230 trees are proposed for clearing equalling 2.3 ha to offset. The total area to be offset is therefore 8.3 ha and is proposed over a watercourse within lot 5273.

The completely degraded (Keighery 1994) condition of the vegetation, within the area under application, decreases the likelihood of long term survival and regeneration as it consists largely of paddock trees. An equivalent area to be replanted and offset is considered to be a more significant long term contribution to vegetation percentages within the Shire and vegetation types (if appropriate species are selected) than the area under application.

**Methodology**

Hopkins et al. (2001).

Havel (2002).

Shepherd et al. (2001).

GIS databases:

- Matiske Vegetation - CALM 24/3/98

- Heddle Vegetation Complexes - DEP 21/06/95

- Interim Biogeographic Regionalisation of Australia - EM 18/10/00

- Pre European Vegetation - DA 01/01.

**(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 at variance to this Principle**

There is a minor non-perennial watercourse within the north east side of the area under application within Lot 5273.

There are minor non-perennial watercourses on the northern and the southern boundaries of the area under application within Lot 3121.

These watercourses are quite degraded as there is no understorey and many of the watercourses with the proponents properties are severely salt affected. These watercourses are non-perennial and no water was observed during the site visit conducted in September.

**Methodology** DoE site visit (2004).  
GIS database:  
- Hydrography Linear - DoE 1/2/04.

**(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**

There is a high salinity risk on eastern side of property lot 3121 on plan 119 482 but not within the clearing areas. The remainder of the properties have a low risk of salinity.

DAWA report (2004):

'There is a low risk of water erosion, as only 3 to 4% of the landscape is at high or extreme risk of water erosion. If good levels of ground cover are maintained the risk of water erosion occurring will be minimal.'

'The areas to be cleared have been carefully selected and are mostly mid slope and as such have a low risk of being affected by waterlogging. There is the potential of some increased waterlogging in the valley floors on the property, although thinning at the scale proposed here will not significantly alter total areas.'

'The gravels on this property have a high nutrient retention potential, and leaching of nutrients is not expected.'

'There is a slight risk of increased salinity from this clearing application. 27 ha of thinning, though a significant area, will lead up to 6000-8000 L of ground water recharge (based on a 25-30 mm increase in recharge in cleared area). On the catchment scale, this is not judged as significant. The trees left behind are expected to increase their LAI (leaf area index) as a result of the removal of competing trees. This will limit the increase in recharge resulting from this proposal, thereby reducing increases in salinity.

There are a couple of bores on the property that indicate fluctuations in water table levels, and indicate some rise, and the thinning of these trees is not expected to exacerbate this process.'

'Unless the area is poorly managed and overgrazed reducing ground cover to very little, the risk of wind erosion occurring is low, as the area under consideration will remain under some tree cover.'

'There is a slight risk of increased salinity from this clearing application, though on a catchment scale, this will not be significant. 27 ha of thinning, though a significant area, will lead up to 6000-8000 L of ground water recharge (based on a 25-30 mm increase in recharge in cleared area). The trees left behind are expected to increase their LAI (leaf area index) as a result of the removal of competing trees. This will limit the increase in recharge resulting from this proposal, thereby reducing increases in salinity'

**Methodology** DAWA report (2004).  
GIS database: Salinity Mapping LM 25m - DOLA 00; Salinity Monitoring LM 50m - DOLA 00; Salinity Risk LM 25m - DOLA 00.

**(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 at variance to this Principle**

Wild Horse Swamp Nature Reserve (purpose of conservation of flora and fauna) is 5.5km west and Towerrining Nature Reserve (aquatic sports and the conservation of flora and fauna) is 7.8km north of the area under application on Lot 5273.

As the local area (10km radius) is highly fragmented the proposed clearing is highly unlikely to affect these nature reserves.

**Methodology** GIS database:  
- CALM Managed Lands and Waters - CALM 1/06/04.

**(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**

Acid Sulfate soils have not been mapped for this area.

Hydrogeological advice:

The proposed clearing will mobilise salt, however, the landscape in which the notified area is situated has been salt affected for a number of years and this clearing will not add significantly to the problem. The proponent is

intending to revegetate an equivalent area.

**Methodology** Hydrogeological advice, R. Smith, Supervising Hydrogeologist, DoE, pers. comm. 2004.

**(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 at variance to this Principle**

Due to scale, flooding impacts are unlikely to occur as a result of the proposed clearing.

**Methodology** Hydrogeological advice, R. Smith, Supervising Hydrogeologist, DoE, pers. comm. 2004.

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

**Comments**

There is no other RIWI Act Licence, Works Approval or EP Act Licence that will affect the area that has been applied to clear

**Methodology**

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Grazing & Pasture	Mechanical Removal	830	Grant	I recommend that this permit be granted as it is not at variance with any of the Clearing Principles.

**5. References**

- DAWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref SWO23293.
- 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.
- Havel, J.J. and Mattiske Consulting Pty Ltd (2002) Review of management options for poorly represented vegetation complexes, Conservation Commission.
- 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.

**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)

