



1. Application details

1.1. Permit application details

Permit application No.: 1663/1

Permit type: Area Permit

1.2. Proponent details

Proponent's name: Corio Pty Ltd & L H Hall

1.3. Property details

Property: LOT 9171 ON PLAN 201679 (DIXVALE 6258)

Local Government Area: Shire Of Manjimup

Colloquial name:

1.4. Application

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

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>Beard Vegetation Association 3 - Medium forest; jarrah - marri</p> <p>Mattiske Vegetation: Bevan 1 (BE) - Tall open forest of <i>Corymbia calophylla</i>-<i>Eucalyptus marginata</i> subsp. <i>marginata</i> on uplands in perhumid and humid zones.</p> <p>Yanmah (YN1) - Mixture of tall open forest of <i>Eucalyptus diversicolor</i> and tall open forest of <i>Corymbia calophylla</i>-<i>Eucalyptus patens</i>-<i>Eucalyptus marginata</i> subsp. <i>marginata</i> over <i>Agonis flexuosa</i> and <i>Agonis juniperina</i> on valleys in perhumid and humid zones.</p> <p>Yornup (YR) - Mixture of tall open forest of <i>Eucalyptus diversicolor</i> and tall open forest of <i>Corymbia calophylla</i>-<i>Eucalyptus patens</i>-<i>Eucalyptus marginata</i> subsp. <i>marginata</i> over <i>Agonis flexuosa</i> and <i>Agonis juniperina</i> on valleys in perhumid and humid zones.</p>	<p>The proposal is to clear 0.9ha of native vegetation for the construction of marron ponds on private property within the Shire of Manjimup. DEC Site Visit Report (2007) found the proposed clearing to be completely degraded (Keighery, 1994), comprising a sparse stand of <i>Eucalyptus marginata</i> and <i>Eucalyptus calophylla</i> and two isolated paddock trees. The area has been used as shelter for stock for the past 80 years, is heavily compacted, and appears to have been regularly burnt. There are dead and dying trees within the stand under application, possibly as a result of water deficiency. Middle and under storeys are completely absent. The area has also been used as a dumping ground for rubbish and old vehicles.</p>	<p>Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)</p>	<p>Vegetation condition was determined from the DEC Site Visit Report (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 at variance to this Principle**

The proposal is to clear 0.9ha of native vegetation for the construction of marron ponds on private property within the Shire of Manjimup. DEC Site Visit Report (2007) found the proposed clearing to be completely degraded (Keighery, 1994), comprising a sparse stand of *Eucalyptus marginata* and *Eucalyptus calophylla* and two isolated paddock trees. The area has been used as shelter for stock for the past 80 years, is heavily compacted, and appears to have been regularly burnt. There are dead and dying trees within the stand under application, possibly as a result of water deficiency. Middle and under storeys are completely absent. The area has also been used as a dumping ground for rubbish and old vehicles.

The Shire of Manjimup and Jarrah Bioregion retain 83.9% and 58.3% respectively of their original extent of pre-European vegetation. Similarly, the Beard and Matiske vegetation types of the proposed clearing are all well represented with a conservation status of 'Least Concern' (Department of Natural Resources and Environment, 2002), and therefore meet the National Objectives Targets for Biodiversity Conservation 2001 - 2005 (being greater than 30% of that present pre-1750).

The Given that native vegetation within the proposed clearing is completely degraded with no middle or under storey, and that the vegetation types of the application area are well represented locally and regionally, the proposal is not considered to be at variance to this principle.

Methodology DEC Site Visit Report (2007)
Keighery (1994)
Department of Natural Resources and Environment (2002)
GIS Database:
- Pre-European Vegetation - DA 10/01
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Matiske Vegetation - CALM 24/3/98

(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**

DEC Site Visit Report (2007) found the proposed clearing to be completely degraded (Keighery, 1994). The area has been used as shelter for stock for the past 80 years, is heavily compacted, and appears to have been regularly burnt. There are dead and dying trees within the stand under application, possibly as a result of water deficiency. Middle and under storeys are completely absent.

Aerial photography indicates that the application area comprises a small stand of trees that are dislocated from other areas of native vegetation, including conservation areas, and is therefore unlikely to function as an ecological linkage for indigenous fauna. No fauna or evidence of fauna species of biodiversity significance were observed in the proposed clearing area during the DEC site visit (2007).

Given that native vegetation within the area under application is completely degraded and is unlikely to function as an ecological linkage, the proposed clearing is unlikely to provide significant habitat for fauna indigenous to Western Australia.

Methodology Keighery (1994)
DEC Site Visit Report (2007)
GIS Database:
- Manjimup 50cm Orthomosaic - DLI 04
- CALM Managed Lands and Water - CALM 01/08/04

(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 thirteen known records of Declared Rare Flora (DRF) within a twenty kilometre radius of the area under application, the closest being approximately 7.8km WNW of the proposed clearing area. These include eight known records of *Caladenia harringtoniae*, four known records of *Caladenia christineae* and one known record of *Diuris drummondii*.

One Priority 4 Flora, *Drosera occidentalis* subsp. *occidentalis*, occurs approximately one kilometre east of the area under application.

The proposed clearing is of the same Matiske vegetation type that supports known records of *Caladenia harringtoniae* and *Caladenia christineae* identified within a 20km radius of the application area. The majority of these DRF occur within areas set aside for conservation.

Given that the vegetation under application is completely degraded with no middle or understorey (DEC, 2007) it is unlikely that the proposed clearing is necessary for the continued existence of rare flora.

Methodology DEC Site Visit Report (2007)
 GIS Database:
 - Declared Rare and Priority Flora List - CALM 01/07/05
 - Mattiske Vegetation - CALM 24/3/98
 - CALM Managed Lands and Waters - CALM 1/07/05

(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**
 Mapping indicates there are no known threatened ecological communities within a fifty kilometre radius of the area under application, therefore the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Database:
 - Threatened Ecological communities - CALM 12/04/05
 - Threatened Plant Communities - DEP 06/95

(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**

	Pre-European (ha)*	Current Extent Remaining (ha)*	(%)*	Conservation Status**	% in Secure Tenure
IBRA Bioregion:					
Jarrah Forest	4,503,156	2,624,301	58.3	Least concern	
Shire: Manjimup	705,670	591,748	83.9	Least concern	
Beard Unit 3	3,046,385	2,197,837	72.1	Least concern	10.1
Mattiske Veg:					
Bevan 1 (BE1)	767,844	657,120	85.6	Least concern	
Yanmah (YN1)	195,125	157,050	80.5	Least concern	
Yornup (YR)	192,520	129,834	67.4	Least concern	

* (Shepherd et al. 2001)

** (Department of Natural Resources and Environment 2002)

*** Within the Intensive Landuse Zone

The area under application is located in the Shire of Manjimup and within the Jarrah Forest Bioregion. The extent of pre-European vegetation within these areas is 83.9% and 58.3% respectively (Shepherd et al., 2001).

The vegetation proposed to be cleared is a component of Beard Vegetation Association 3 (Hopkins et al., 2001) of which there is 72.1% of the pre-European vegetation extent remaining (Shepherd et al., 2001). The proposed clearing also falls within Mattiske Vegetation complexes Bevan 1 (BE1), Yanmah (YN1) and Yornup (YR) (Mattiske Consulting, 1998) which retain 85.6%, 80.5% and 67.4% respectively of their pre-European extent. These vegetation types all have a conservation status of 'Least Concern' (Department of Natural Resources and Environment, 2002).

Given that the pre-European extent of the Jarrah Bioregion, Beard Vegetation Association and Mattiske vegetation types all meet the National Objectives Targets for Biodiversity Conservation 2001 - 2005 (being greater than 30% of that present pre-1750) this proposal is not at variance to this principle.

Methodology Shepherd et al (2001)
 Hopkins et al (2001)
 Department of Natural Resources and Environment (2002)
 GIS Database:
 - Pre-European Vegetation - DA 10/01
 - Interim Biogeographic Regionalisation of Australia - EA 18/10/00
 - Mattiske Vegetation - CALM 24/3/98

(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

There are no wetlands or watercourses associated with the proposed clearing site.

The closest water body is a minor perennial watercourse, Boojetup Brook, which lies approximately 130m east of the proposed clearing.

Given the shallow topographical gradients within the region, it is highly unlikely that the proposed clearing will impact on the environmental values of this watercourse.

Methodology GIS Database:

- Rivers 250K - GA
- Hydrography, Linear - DOE 1/2/04
- Topographic Contours, Statewide - DOLA 12/09/02

(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

Given the low relief and shallow gradients of the topography within the region, and the size of the area to be cleared, the proposed clearing of native vegetation is unlikely to cause appreciable land degradation in the form of wind or water erosion, waterlogging or salinisation.

Methodology GIS Database:

- Topographic Contours, Statewide - DOLA 12/09/02

(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 area proposed to be cleared does not lie within or adjacent to areas set aside for conservation.

The closest conservation area is North Donnelly State Forest, located 1.3kms NNE of the area under application. The proposed clearing is of the same Mattiske vegetation types as the Mattiske vegetation identified within this conservation reserve.

However, given that the vegetation under application is completely degraded and not vegetatively linked to North Donnelly State Forest or other nearby pockets of native vegetation, the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Database:

- CALM Managed Lands and Waters - CALM 1/07/05
- Mattiske Vegetation - CALM 24/3/98
- Manjimup 50cm Orthomosaic - DLI 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 at variance to this Principle

The proposed clearing site lies within the Donnelly River Catchment. The region is of low relief with shallow gradients, and has an annual rainfall of 1100mm.

The area under application has been identified as falling within the Donnelly River Water Reserve, declared as a Public Drinking Water Source Areas (PDWSAs) under the Country Areas Water Supply Act 1947 (CAWS). No priority level has been assigned for this PDWSA. Department of Water (Manjimup) has advised that the proponent is in receipt of a current 'Licence to Take Water' that is valid for the works proposed for the property under application.

Given the above, the proposal is not at variance with this principle.

Methodology GIS Database:

- Hydrographic Catchments - Catchments - DOE 23/03/05
- Rainfall, Mean Annual - BOM 30/09/01
- Topographic Contours, Statewide - DOLA 12/09/02
- Public Drinking Water Source Areas (PDWSAs) - 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

Due to the scale and nature of the proposed clearing, it is unlikely to cause or exacerbate flooding within the local area.

Methodology GIS Database:
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The Shire of Manjimup have advised that they have no objection to the proposed clearing as "the vegetation....appears to be a small and isolated pocket (the clearing of) which is not likely to make a significant impact upon the overall aspect of seeking to maintain native vegetation."

A copy of Planning Approval for the construction of additional marron ponds has been received from the Shire of Manjimup.

Department of Water (Manjimup) has advised that the proponent is in receipt of a current 'Licence to Take Water' that is valid for the works proposed for the property under application.

Department of Fisheries have advised that no new approvals or changes to the aquaculture licence are required by the Department of Fisheries.

Methodology GIS Database:
- Native Title Claims - DLI 07/11/05
- RIWI Act, Areas - WRC 05/04/02

4. Assessor's comments

Purpose	Method	Applied area (ha)/ trees	Comment
Aquaculture	Mechanical Removal	0.9	The assessable criteria have been addressed , and the proposal is not at variance to Principles (a), (e) and (j); and is not likely to be at variance to Principles (b), (c), (d), (f), (g), (h) and (j);

5. References

Clearing Assessment Unit's biodiversity advice for land clearing application. Advice to Director General, Department of Environment and Conservation (DEC), Western Australia. TRIM ref DOV18443

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.

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, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.

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)