



1. Application details

1.1. Permit application details

Permit application No.: 2888/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: DR Andrew Rado Managing Director Tunbridge Properties Pty Ltd (Tunbridge)

1.3. Property details

Property: LOT 11938 ON PLAN 161273 (Lot No. 11938 STIRLING CHANNYBEARUP 6260)
 LOT 11938 ON PLAN 161273 (Lot No. 11938 STIRLING CHANNYBEARUP 6260)

Local Government Area: Shire Of Manjimup

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
36		Mechanical Removal	Timber Harvesting

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: 1144 - Tall forest; karri & marri (Corymbia calophylla)	The application is for the clearing of 36 hectares of native vegetation for the purpose of silviculture. The vegetation is in excellent condition with minimal evidence of disturbance, but was previously thinned 30 years ago.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The vegetation condition and description was determined from DEC Site Visit (2009).
1 - Tall forest; karri (Eucalyptus diversicolor)			
Mattiske Vegetation Complex: Pemberton: Tall open forest of Eucalyptus diversicolor with mixtures of Corymbia calophylla on valley slopes and low forest of Agonis juniperina-Banksia seminuda-Callistachys lanceolata on valley floors in the perhumid zone.			
Crowea: Tall open forest of Corymbia calophylla-Eucalyptus diversicolor on upper slopes with Allocasuarina decussata-Banksia grandis on upper slopes in hyperhumid and perhumid zones.			
Lefroy: Tall open forest of Eucalyptus diversicolor-Corymbia calophylla on slopes and low woodland of Agonis juniperina-Callistachys lanceolata on lower slopes in hyperhumid and perhumid zones.			

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 application is to clear 36 hectares of native vegetation for the purpose of silviculture. The vegetation under application is in excellent (Keighery, 1994) condition (DEC Site Visit 2009).

The area under application contains closed Karri (Eucalyptus diversicolor) forest (DEC Site Visit 2009). The area has previously been thinned (30yrs ago), and there is little evidence of disturbance.

The application area is surrounded by 5 conservation areas, and the local area (10km radius) is approximately 75% vegetated with native vegetation. Therefore, the 36ha under application is not considered to be a locally significant remnant in terms of biological diversity.

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

Methodology DEC site visit (2009)
 Keighery (1994)

GIS database:

- CALM Managed Lands and Waters - CALM 01/06/05
- SAC Biodatasets - accessed 9 Jan 08
- Mattiske Vegetation (01/03/1998)
- Declared Rare and Priority Flora List - CALM 13/08/03
- Pre European Vegetation - DA 01/01
- Clearing Regulations, Environmentally Sensitive Areas 30 May 2005
- NLWRA, Current Extent of Native Vegetation 20 Jan 2001

(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 may be at variance to this Principle

Whilst 4 rare and 3 priority fauna species have been recorded within the local (10km radius) area, the local area is well vegetated and as such the vegetation under application is considered less significant as fauna habitat.

As the application area contains a minor perennial watercourse, and feeds into the Lefroy Brook (major river), the proposed clearing may impact on habitat for *Galaxiella munda* (Western Mud Minnow - vulnerable), *Geotria australis* (Pouched Lamprey - P1) and *Hydromys chrysogaster* (Water-rat - P4). The Native Forest Management Plan states a 30m buffer will be retained around the watercourse (Bradshaw, 2008), and this should mitigate any potential impacts on this habitat and will be a condition of the permit.

The application area may also be providing habitat and wildlife corridor for *Calyptorhynchus banksii naso* (Forest Red-tailed Black Cockatoo - vulnerable), however, as the proposal is for thinning, and large conservation areas surround the application, and as such the impact is likely to be small.

In order to reduce the potential impacts of the proposed clearing on native fauna, habitat retention conditions will be imposed on the permit.

Methodology Nature Base (2008)

GIS database:

- CALM Managed Lands and Waters - CALM 01/06/05
- Mattiske Vegetation (01/03/1998)
- SAC Biodatasets - accessed 9 Jan 08
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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

One rare and 5 priority flora species has been recorded with the local (10km radius) area of the proposed clearing. *Caladenia christineae* (rare) was recorded in the same vegetation and soil types as part of the application area, 6.3km east. *C. christineae*, however, grows in margins of winter-wet flats, swamps and freshwater lakes, and is not therefore likely to occur within the application area outside stream buffers.

Two priority flora species occur within the same vegetation and soil types as the application area and within 2km. *Rulingia apella* (P1) only occurs near riverbanks, and *Asplenium aethiopicum* (P4) grows in rock crevices of rocky outcrops (DEC Florabase 2009). These two species are therefore not likely to be impacted on by the proposed clearing as a buffer will be maintained around watercourses, and vegetation amongst any rocky outcrops is not likely to be significantly disturbed by thinning of trees.

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

**Methodology DEC Florabase (2009)
Mattiske Consulting (1998)**

GIS database:

- Declared Rare and Priority Flora List - CALM 13/08/03
- Mattiske Vegetation (01/03/1998)
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 9 Jan 08
- Soils, Statewide DA 11/99

(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 no known threatened ecological communities recorded within a 10km radius of the application area. Therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Database:
- SAC Biodatasets - accessed 9 Jan 2009

(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 application lies within the Shire of Manjimup and the Warren IBRA Bioregion, which retains 85.40% and 80.8% native vegetation respectively (Shepherd 2007). Orthomosaic imagery suggests the local (10km radius) area is approximately 75% vegetated.

The vegetation under application is of Beard Vegetation Associations 1144 and 1, both of which have more than 80% of the pre-European extent remaining (Shepherd 2007). The vegetation is also Mattiske Vegetation Complexes Pemberton, Crowea and Lefroy have 65.6%, 81.2% and 81.9% remaining (Mattiske Consulting 1998).

The area is not considered to be extensively cleared, and therefore the vegetation under application is not a significant remnant in the local area. The clearing as proposed is therefore not likely to be at variance to this principle.

Methodology Mattiske Consulting (1998)
Shepherd (2007)
Shepherd et al (2001)

GIS Databases:
- Manjimup 50cm Orthomosaic - Landgate 2004
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- Local Government Authorities - DLI 8/07/04
- Mattiske Vegetation - CALM 1/03/1998
- Pre European Vegetation - DA 01/01
- SAC Biodatasets - accessed 9 Jan 2009
- NLWRA, Current Extent of Native Vegetation 20 Jan 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 may be at variance to this Principle

A minor perennial watercourse, which is a tributary to the Lefroy Brook (major river) 60m south east, runs through the application area. Treen Brook (minor river) flows 1.2km west of the proposed clearing. The clearing as proposed may therefore be at variance to this principle.

The Native Forest Management Plan for Tunbridge Properties states a 30m buffer will be retained around watercourses (Bradshaw 2008). This will be a condition of the permit.

Methodology Bradshaw (2008)
DEC site visit (2007)

GIS Databases:
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain ? DEC 11/04/07
- Hydrography linear - DOW 13/7/06
- Hydrography linear (hierarchy) - DoW 13/7/06

(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

As the application is for silvicultural thinning and vegetation cover with a minimum basal area of 20m² per hectare will remain (Bradshaw 2008), the proposed clearing is not likely to cause appreciable land degradation.

Methodology Bradshaw (2008)

- GIS database:
- Hydrography, linear - DOW 13/7/06
 - Salinity Risk LM 25m - DOLA 00
 - Soils, Statewide DA 11/99
 - Topographic contours statewide - DOLA and ARMY 12/09/02
 - Hydrogeology, Statewide 05 Feb 2002

(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 may be at variance to this Principle

The application area adjoins Big Brook State Forest, Pemberton National Parks (Register of National Estate) and Donnelly State Forest. Additionally, Gloucester National Park and Karri Management Authority Area (Register of National Estate) lie 3km south east.

The proposed clearing has the potential to cause spread of weeds and Phytophthora (dieback) into the surrounding conservation areas and as such may be at variance to this principle. In order to manage these risks, dieback and weed conditions will be placed on the permit.

Methodology GIS Databases:

- CALM Managed Lands and Waters - CALM 01/06/05
- Register of National Estate - Environment Australia, Australian and world heritage division 12 Mar 02

(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 may be at variance to this Principle

A minor perennial watercourse, a tributary of Lefroy Brook (major river) flows through the application area. Treen Brook (minor river) is 1.2km west of the proposed clearing.

The potential sedimentation of the waterways by the proposed clearing will be mitigated through retention of a 30m buffer around watercourses (Bradshaw 2008). Additionally, the maintenance of a minimum basal area of 20m² per hectare (Bradshaw 2008) will reduce the potential impacts on the nearby water courses.

The application lies within CAWS Act Warren River Catchment, Zone D. DOW (2008) are not opposed to the proposal provided a 30m buffer is maintained around water courses, and this will be a condition of the permit.

- Methodology** Bradshaw (2008)
DEC site visit (2009)
DOW (2008)

- GIS database:
- Hydrographic catchments, catchments - DoW 01/06/07
 - Hydrographic catchments, subcatchments - DoW 01/06/07
 - Hydrography, linear - DOW 13/7/06
 - Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
 - Salinity Risk LM 25m - DOLA 00
 - Topographic 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

Given the application is for silvicultural thinning, and a minimum basal area of 20m² per hectare will be maintained (Bradshaw 2008), the proposal is not likely to cause or exacerbate the incidence or intensity of flooding. The clearing as proposed is therefore not likely to be at variance to this principle.

- Methodology** Bradshaw (2008)
DEC site visit (2009)

- GIS database:
- Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
 - Topographic Contours, Statewide - DOLA 12/09/02

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

- Comments** No submissions were received regarding this application.

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing may be at variance to Principles (b), (f), (h) and (i), and is not likely to be at variance to the remaining clearing Principles.

5. References

- Bradshaw (2008). Native Forest Management Plan Tunbridge Properties Pty Ltd. TRIM ref DOC70279.
- DEC (2009) Site Inspection Report for Clearing Permit Application CPS 2888/1, Lot 11938 on Plan 161273, Channybearup. Site inspection undertaken 8/1/2009. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC73911).
- Department of Water (2008). Country Area Water Supply Advice. DEC TRIM Ref: DOC74675.
- Flora base (2008) Flora Species Profiles. Department of Environment and Conservation viewed electronically via <http://florabase.dec.wa.gov.au/browse> accessed on 10/01/2009
- 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, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- Shepherd, D.P. (2007). 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

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)

