Department of Environment and Conservation

# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

**Permit application No.:** 2459/2
**Permit type:** Area Permit

### 1.2. Proponent details

**Proponent's name:** **Tunbridge Properties Pty Ltd**

### 1.3. Property details

**Property:** LOT 500 ON PLAN 60842 ( EASTBROOK 6260)
**Local Government Area:** Shire Of Manjimup
**Colloquial name:**

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|---|---|---|---|
| 0.78 | | Mechanical Removal | Dam construction or maintenance |

## 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:<br>Tall forest of Karri and Marri<br><br>Mattiske Vegetation Complex<br><br>CRb: Tall open forest of Corymbia calophylla-Eucalyptus diversicolor on upper slopes with Allocasuarina decussata-Banksia grandis on upper slopes in hyperhumid and perhumid zones.<br><br>WH1: Tall open forest of Eucalyptus diversicolor-Corymbia calophylla on slopes and tall open forest of Eucalyptus patens on valley floor in perhumid and humid zones. | Proposal is for the clearing of a fragment of native vegetation covering 0.78ha for the purpose of dam construction or maintenance. | Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994) | Vegetation condition was determined from aerial mapping Manjimup 50cm Orthomosaic DLI 04 |

## 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 vegetation within the applied area is in good (Keighery, 1994; Aerial mapping) condition, comprising of a tall open forest of Eucalyptus diversicolor and Corymbia calophylla on upper slopes and Eucalyptus patens, Allocasuaria sp. and Banksia sp. on slopes and valley floors. The biodiversity value of this area of vegetation is likely to be poor due to the agricultural landuse to the south, east and west is likely to have degraded vegetation due to the introduction of weeds.

There are three Priority flora species that may occur within the proposed areas. These species were found over 6km away in larger more intact remnants that is likely to be more suitable habitat for these species.

Due to the condition of the vegetation, isolation of large remnant and the small size of the application area the area applied to be cleared is unlikely to have a high level of biological diversity and is therefore not likely to be at variance to this principle.

**Methodology**

References:
Keighery (1994)

GIS Database:
Pre European Vegetation - DA 01/01
Manjimup 50cm Orthomosaic (DLI04)
SAC Biodatasets - accessed 19 June 08

**(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 7 recorded occurrences of Declared Threatened Fauna within the local area (10km radius), namely the Western Mud Minnow, Pouched Lamprey, Quenda, Western Ringtail Possum, Forest red-tailed black cockatoo, Quokka and Water- Rat.

While there are 7 fauna species that may utilize the proposed areas, there are larger areas of similar vegetation within the surrounding areas that can be utilized and thus the application are is not considered to be for the maintenance of, or a significant habitat for the recorded locally occurring fauna.

Additionally, the watercourse within which the applicant has applied to clear, has been altered through the construction of 2 dams downstream and one dam upstream of the applied area. It is therefore unlikely that the clearing as proposed will have significant impacts on the habitat of the Western Mud Minnow or the Pouched Lamprey.

The proposed area for clearing is therefore considered not likely to represent a significant habitat for indigenous fauna and is not likely to be at variance to this principle.

**Methodology**

References:
Keighery (1994)

GIS Database:
SAC Biodatasets - accessed 19 June 08
Pre European Vegetation - DA 01/01

**(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**
No rare flora have been recorded within the local area (10 km radius).

Therefore the clearing as proposed is not likely to be at variance to this principle

**Methodology**

References:
Northcote et al. (2001)

GIS Database:
Pre European Vegetation - DA 01/01
Soils, Statewide DA 11/99
SAC Biodatasets - accessed 19 June 08

**(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 (TEC) within a 10km radius of the applied area.

The clearing as proposed is not at variance to this principle as there are no TECs associated with the applied area.

**Methodology**

References:
SAC Biodiversity Datasets TEC Database (Accessed 02/05/2008)

GIS Database:
- SAC Biodatasets - accessed 19 June 08

- Pre European Vegetation - DA 01/01
- Soils, Statewide DA 11/99

**(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 vegetation within the application area is a component of Beard Vegetation Association 1144 (Hopkins et al. 2001) of which there is approximately 79.5% of the pre-European extent remaining (Shepherd, 2006).

The vegetation proposed to be cleared is also a component of Mattiske vegetation complexes, Wheatley and Crowea, of which 78% and 81.2% of the pre-European extent is remaining (respectively) (Mattiske, 1994).

The local area is moderately vegetated, of which there are 6 CALM managed lands (State Forest; National Park; Miscellaneous) incorporating approximately 35.5% of Beard vegetation association 1144 within their borders.

The vegetation under application is comprised of a vegetation complex that is well represented. The data indicates that the Shire of Manjimup is also well vegetated.

Given the pre-European extent remaining of the aforementioned vegetation association (and Mattiske vegetation complexes representation) and the relatively high proportion of vegetation remaining within the local area (10km radius) the clearing as proposed is not at variance to this principle.

**Methodology**

References:
Hopkins et al (2001)
Shepherd (2006)
Mattiske Consulting (1994)

GIS Database:
Pre European Vegetation - DA 01/01
Local Government Authorities - DLI 8/07/04
CALM Managed Lands and Waters ? CALM 01/08/04

**(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 clearing application area is located within the Lefroy Brook catchment.
A minor watercourse is within the application area there are 2 dams downstream and one upstream on this watercourse which adjoins Lefroy Brook. In addition there are multiple major and minor watercourses within the local area (10km radius).

The clearing application area includes no wetlands, and there are no wetlands within a 10km radius of the applied area.

The proposed clearing falls inside the recommended buffer required for watercourses, 30m (DoW, 2005).

The clearing as proposed is at variance to this principle as the purpose of the application is for a dam which will interfere with the minor watercourse which passes through the application area.

As the current dam on the property has an insufficient buffer and to provide a buffer for the proposed dam, revegetation conditions will be placed on the permit.

**Methodology**

References:
DoW (2005)

GIS Database:
ANCA wetlands - Environment Australia 26/3/99
Ramsar wetlands - DEC 03
Hydrographic catchments, catchments - DoW 01/06/07
Hydrographic catchments, subcatchments - DoW 01/06/07
Hydrography linear - DOW 13/7/06
Hydrography linear (hierarchy) - DoW 13/7/06
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07

**(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 Lefroy Brook subcatchment (of which this application is a part) is well vegetated (~79%). (Shepherd, 2006)

The soil type mapped for the application area is described as steep hilly to hilly dissected laterite plateau with steep valley side slopes with chief soils that are hard as well as sandy neutral, acidic yellow / yellow mottled soils and red earths. The sands described are at a low to high risk of wind erosion following clearing. (Northcote et al., 2001)

The applied area is located within Country Areas Water Supply (CAWS) (1947) Act zone D. This legislation is in place to protect drinking water from the effects of salinity.

A minimum 10% vegetation cover within a holding is recommended in the CAWS Act guidelines to protect drinking water in this area from the effects of salinity and as the holding has less than 10% vegetation cover, the Department of Water does not support further clearing of the area without revegetation conditions being placed on the permit (CAWSA Advice, 2008). Revegetation conditions will be placed on the permit to ensure the holding retains a 10% vegetation coverage.

The application area is 115 to 130 AHD and there are no wetlands in the local area (10km radius).

The Department of Water (DoW) has advised that there are no expected implications of clearing on Big Brook or Lefroy Dams, in addition DoW has reported discussions with the proponent indicating that they will be using an electric pump at the dam to remove any risk to water quality from fuel spills (Trim Ref DOC52407).

The proposed clearing is therefore not likely to be at variance to this principle as clearing is not expected to cause appreciable land degradation.

**Methodology**

References:
CAWSA Advice (2008)
Northcote et al (2001)
Shepherd (2006)

GIS Database:
Hydrographic catchments, subcatchments - DoW 01/06/07
Pre European Vegetation - DA 01/01
Groundwater Salinity Statewide DoW 13/07/06
Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
Evaporation Isopleths - WRC 29/09/98
Topographic Contours, Statewide - DOLA 12/09/02
ANCA wetlands - Environment Australia 26/3/99
Ramsar wetlands - DEC 03
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 likely to be at variance to this Principle**

There are 6 conservation areas within the local area (10km radius) being either State Forest, National Parks or Miscellaneous Reserves.

Big Brook State Forest is ot the north of the area under application and Gloucester National Park lies to the south.

The area under application is part of a sparsely vegetated watercourse and the clearing of 0.78ha is unlikely to compromise linkages to these conservation area as there are more adequate linkages nearby.

The clearing is proposed is not likely to be at variance to this principle due to the small size of the proposed clearing and the distance between the applied area and the conservation areas.

**Methodology**

GIS Database:
CALM Managed Lands and Waters - CALM 01/06/05

**(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**

The Lefroy Brook subcatchment (of which this application is a part) is well vegetated (~79%) (Shepherd, 2006).

The soil type mapped for the application area is described as steep hilly to hilly dissected laterite plateau with steep valley side slopes with chief soils that are hard as well as sandy neutral, acidic yellow / yellow mottled soils and red earths. The sands described are at a low to high risk of wind erosion following clearing (Northcote et al., 2001).

The application area is 115 to 130 AHD, there are no wetlands in the local area (10km radius) and the applied area is located within Country Areas Water Supply (CAWS) (1947) Act zone D. This legislation is in place to protect drinking water from the effects of salinity. The applied area is also located within a Public Drinking Water Source Area currently not assessed for its significance.

A minimum 10% vegetation cover within a holding is recommended in the CAWS Act guidelines to protect drinking water in this area from the effects of salinity and as the holding has less than 10% vegetation cover, the Department of Water does not support further clearing of the area without revegetation conditions being placed on the permit (CAWSA Advice, 2008). Revegetation conditions will be placed on the permit to ensure the holding retains a 10% vegetative coverage.

The Lefroy Brook catchment area drinking water source protection assessment places the applied area approximately 1.3km south of Big Brook dam which is annually used to recharge Lefroy Brook Weir (Town of Pemberton water supply).

The Department of Water (DoW) has advised that there are no expected implications of clearing on Big Brook or Lefroy Dams. In addition DoW has reported discussions with the proponent indicating that they will be using an electric pump at the dam to remove any risk to water quality from fuel spills (Trim Ref DOC52407).

The proposed clearing may be at variance with this Principle as the clearing as proposed contravenes the Country Areas Water Supply (CAWS) Act (1947). Revegetation conditions will be placed on the permit to comply with CAWS guidelines.

**Methodology**

References:
Shepherd (2006)
Northcote et al. (2001)

GIS Database:
Hydrographic catchments, subcatchments - DoW 01/06/07
Pre European Vegetation - DA 01/01
Groundwater Salinity Statewide ? DoW 13/07/06
Mean Annual Rainfall Isohytes (1975 - 2003) - DEC 02/08/05
Evapotransporation Isopleths - WRC 29/09/98
Topographic Contours, Statewide - DOLA 12/09/02
ANCA wetlands - Environment Australia 26/3/99
Ramsar wetlands - DEC 03
Soils, Statewide DA 11/99

### (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 vegetation under application is located on soil type Uc1 and is associated with steep hilly to hilly dissected laterite plateau with steep valley side slopes with chief soils that are hard as well as sandy neutral, acidic yellow / yellow mottled soils and red earths (Northcote et al. 2001) which usually have a low water logging risk.

The Lefroy Brook catchment (of which this application is a part) is well vegetated (~ 79 %) (Aerial Mapping). The area under application is small (0.78ha) thus clearing of native vegetation in the applied area may incrementally increase water flow in the immediate area.

Any increase in water flow in this area is likely to be absorbed by a dam 50m north west of the applied area, therefore further clearing in this area is not likely to increase the incidence and/or intensity of flooding.

The proposal is not likely to be at variance with this principle as the applied area is small (0.78ha) and the dam approximately 50m north west of the application area is likely to mitigate any extra water flow in the immediate area.

**Methodology**

References:
Northcote et al (2001)
Shepherd (2006)

GIS Database:
Soils, Statewide DA 11/99
Hydrographic catchments, subcatchments - DoW 01/06/07

Pre European Vegetation - DA 01/01

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

**Comments**

The proponent requires Water permit from the Department of Water to interfere with the water way and construct a dam. The Department of Water has provided advice that it is likely a water licence will be granted (Trim Ref DOC52407).

The applied area is included in the Greater Bunbury Regional Scheme however no planning matters have arisen from this.

The property is currently zoned as Rural.

The application is located in CAWSA zone D. Compensation has not been paid in the past and is not available to be awarded now as there is less than 10% vegetation cover on the holdings. (CAWSA Advice, 2008; DOC 52350) In addition, information from Department of Water indicates that revegetation would be acceptable provided it was sustainable revegetation (Trim Ref DOC52464).

The proponent has provided additional information including a proposed offset of 1.56 ha of revegetation adjoining the area to be cleared to the north east (Trim Ref DOC55620).

**Methodology**

References:
-CAWSA Advice (2008)

GIS Database:
- Native Title Claims - LA 2/5/07
- Town Planning Scheme Zones - MFP 31/08/98
- Country Area Water Supply Act (Part IIA) Clearing Control Catchments 29/06/2006
- Manjimup 50cm Orthomosaic (DLI04)

## 4. Assessor's comments

**Comment**

The clearing as proposed has been assessed against the clearing principles and has been found to be:
- at variance to Principle F
- maybe at variance to Principle I
- not likely to be at variance to Principles A, B, C, G, H and J
- not at variance to principles D and E

## 5. References


CAWSA Advice (2008) Department of Water, Advice on compensation claim in CAWSA Zone D, Trim Ref DOC 52350)

Department of Water (2005) Water Quality Protection Note: Vegetation Buffers to Sensitive Water

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, 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.

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.

Sac Biodiversity Datasets: TEC Database (2008) Department of Environment and Conservation, Threatened Ecological Communities, computer software, accessed 06/05/2008

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.

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.

Supporting Information (2008) Lot 11935 Kemp Rd, Pemberton. Preliminary assessment of environmental values. Trim Ref DOC 55620

## 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) |