



## 1. Application details

### 1.1. Permit application details

Permit application No.: 762/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Terry Ray Woodley

### 1.3. Property details

Property: LOT 14 ON PLAN 34103 (Lot No. 14 BULLER WAROONA 6215)

Local Government Area: Shire Of Waroona

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
48		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
Beard Vegetation association 1000: Mosaic: Medium forest; Jarrah - Marri / low Woodland; Banksia / Low Forest; tea tree ( <i>Melaleuca</i> spp.)	The proposal includes clearing of 38ha middle and understorey plus dead trees to create parkland cleared vegetation for grazing and fire hazard reduction.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Vegetation assessment for this permit was determined from observations made during a site inspection on 1/2/2006.

Heddie Vegetation Complex:

- Southern River Complex  
- Open woodland of *E. calophylla* - *E. marginata* - *Banksia* species with fringing woodland of *E. rudis* - *M. raphiophylla* along creek beds.

Heddie et al.(1980)

Shepherd et al.(2001)

## 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 at variance to this Principle

Lot 14 Buller Road has been identified as potentially containing Declared Rare Flora, Threatened Ecological Communities, and habitat for Significant Fauna. The condition of vegetation within the area under application is very good, with weed infiltration limited to areas of physical disturbance. CALM advise that the above attributes are considered more important as the remnant is 'within a highly fragmented landscape, and it is significant as a remnant of native vegetation in an area that has been extensively cleared.'

**Methodology** CALM (2005)

### (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

CALM (2005) has advised that the Western Brush Wallaby (*Macropus imma*) have been recorded 3.6 kilometres

east of the area under application in the Buller Road Nature Reserve. The Hooded Plover (*Charadrius rubricollis*) has also been recorded within the local area although its habitat is more suited to coastal and estuarine environments.

Given the area under application forms part of a corridor that links bushland in an otherwise extensively cleared area CALM (2005) has advised that it is highly probable that the vegetation on-site is utilised by native fauna as habitat and also important for fauna travelling through the landscape. CALM (2005) also considers the vegetation is likely to be significant habitat for species in the local area, provides an ecological linkage necessary for the maintenance of fauna species and maintains ecological functions that protect significant habitat.

**Methodology** CALM (2005)

**(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.**

**Comments Proposal may be at variance to this Principle**

Within the local area (10km of application) there are three recorded species of Declared Rare Flora (DRF) and 16 species of Priority Flora. CALM (2005) has advised that within the area under application, there may be suitable habitat for all of the DRF species, which include *Diuris prudiei*, *Diuris micrantha* and *Drakea elastica*.

Data obtained from the GIS database confirm that these species are found on the same or similar soil associations that are found within the area under application. CALM (2005) has also advised that of the Priority species recorded within the local area, *Boronia capitata subsp. gracilis* (P2), *Hemigenia microphylla* (P3), *Schoenus sp. Waroona* (P3), *Schoenus natans* (P4), are also found in similar soil associations.

It is likely that some or all of these DRF and/or Priority Flora will occur within the area under application, however to confirm this an appropriate timed flora survey would need to be conducted by a suitably qualified botanist.

**Methodology** CALM (2005)  
GIS Databases:  
Declared Rare and Priority Flora List - CALM 01/07/05  
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 may be at variance to this Principle**

CALM (2005) identified two seasonally wet Threatened Ecological Communities (TEC) within 2 kilometres of the area under application with the closest being only 1500m to the northwest. These TEC are within the same vegetation complex and given the presence of an EPP wetland within the area under application CALM has advised that it 'cannot be assumed that this area does not contain a TEC'.

The confirmation that a TEC is present within the area under application 'can only be determined from a detailed survey by a suitably qualified botanist, preferably in spring to sample herbs using the Gibson Plant community data for comparison' (CALM 2005).

**Methodology** CALM (2005)  
GIS Database: Threatened Ecological Communities - CALM 12/4/05

**(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 at variance to this Principle**

Hedde et al (1980) defines the vegetation under application as Southern River Complex. This has a representation of 19.8% and is classified as Open woodland of *E. calophylla* - *E. marginata* - *Banksia* species with fringing woodland of *E. rudis* - *M. raphiophylla* along creek beds.

The Southern River Complex currently has 1.5% vegetation (Hedde et al 1980) in secure tenure with JANIS (1997) recommending that 15% of the pre-1750 distribution of each vegetation ecosystem should be protected in a comprehensive, adequate and representative reserve system.

Vegetation under application is also classified as vegetation association 1000 (Shepherd et al. 2001). This association has a representation of 24.6% of the pre-European extent and is described as Mosaic: Medium forest; Jarrah - Marri / low Woodland; *Banksia* / Low Forest; tea tree (*Melaleuca* spp.) (Shepherd et al. 2001).

The State Government is committed to 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).

The remaining ecological communities for both the Heddle et al (1980) and Shepherd et al. (2001) are considered vulnerable and well below the minimum 30% vegetation present pre-1750 target within the National Objectives for Biodiversity Conservation.

With species extinction believed to occur at an exponential rate when vegetation communities are cleared past 30% of vegetation present pre-1750 further clearing is likely to have irreversible consequences for the conservation of biodiversity.

**Methodology** Department of Natural Resources and Environment (2002)  
EPA (2000)  
Shepherd et al (2001)  
Heddle et al (1980)  
JANIS (1997)  
GIS Databases:  
Heddle Vegetation Complexes - DEP 21/06/95  
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 seriously at variance to this Principle**

Vegetation growing in and associated with 7.2ha Conservation Category Wetland (CCW) is located within the northern portion of the lot under application. Wetlands in this category support a high level of ecological attributes and functions and are considered the highest priority wetlands for protection.

The management objective for CCW wetlands is for the preservation of the various attributes and functions, therefore there should be no further loss and degradation of these wetlands (Water and Rivers Commission 2001). The Water and Rivers Commission (2001) also recommends the retention of a minimum buffer of 200m for protection from nutrient inputs on transmissive soils like those present within the area under application.

Given that it is growing within, and in association with, a Conservation Category Wetland, clearing of the vegetation under application is likely to significantly impact the ecological function and values of the wetland.

**Methodology** Water and Rivers Commission (2001)  
GIS Databases:  
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE 15/9/04

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments Proposal is seriously at variance to this Principle**

Although the area under application has a low risk of acid sulphate soils and salinity, the Department of Agriculture (2005) has advised that should the application be approved, it would result in a very high risk of wind erosion, eutrophication and waterlogging.

The majority (85%) of the area under application consists of very low relief dunes of pale, deep sands. Removal of vegetation from these soils has the potential to decrease soil stability and result in wind erosion. The removal of vegetation as proposed may also cause an increase in surface water run-off, which has the potential to contain high levels of nutrients due to the high infiltration rates and poor nutrient retention ability of this soil type. The run-off from the area under application flows into a drain on the western boundary of the property, which discharges into the Peel-Harvey Estuary. This has the potential to add additional nutrients to the estuary, which may result in further eutrophication (Department of Agriculture 2005).

A small portion of the area also consists of swamp in wet soils of pale, deep sands and peaty sands. Due to the low infiltration rates of these soils and the high average annual rainfall (1000mm) in the area, there is a very high risk of waterlogging associated with the proposed clearing of vegetation (Department of Agriculture 2005).

**Methodology** Department of Agriculture (2005)  
GIS Databases:  
Acid Sulfate Soil Risk Map, SCP - DOE 04/11/04  
Salinity Risk LM 25m - DOLA 00  
Soils, Statewide - DA 11/99

**(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 at variance to this Principle**

Within the local area (10km of application) CALM (2005) has identified several conservation areas including Yalgorup National Park, Buller Nature Reserve and Kooljerrenup Nature Reserve. CALM (2005) has also

identified several Crown reserves that are vested in local government, the largest of which is located 1.3km to the northwest and was identified as a system 6 conservation reserve. There are also approximately 100 EPP 2004 wetlands within the local area, including the Conservation Category Wetland that is located in the northern portion of the lot.

CALM (2005) has also advised that the area under application provides an ecological linkage between the CCW and the area of bushland to the north that is joined to the Harvey River corridor. This linkage is important for the movement of wildlife through what is an extensively cleared area. If the vegetation were to be cleared, the link between these areas would be lost and the ecological values would be degraded.

There is also the possibility that the removal of vegetation as proposed will result in high levels of Phosphorous leaving the site that may impact on conservation areas further downstream within the Peel-Harvey Estuary.

It is considered that the removal of vegetation as proposed has the potential to have an impact on the environmental values of nearby conservation areas.

**Methodology** CALM (2005)  
GIS Database:  
System 6 Conservation Reserves - DEP 06/95

**(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 at variance to this Principle**

The Department of Agriculture (2005) land degradation assessment report revealed that the majority (85%) of the area under application consists of very low relief dunes of pale, deep sands. The area has a low risk of salinity and acid sulphate soils, however due to the poor nutrient retention ability of this soil type, water run-off has the potential to contain high levels of nutrients. This run-off flows into a drain on the western boundary of the property, which discharges into the Peel-Harvey Estuary.

The removal of vegetation as proposed has the potential to increase surface water run-off, containing elevated nutrient concentrations, and may contribute to eutrophication of the Peel-Harvey Estuary. Eutrophication of the CCW wetland in the northern portion of the lot may also occur as a result of the proposed clearing.

**Methodology** Department of Agriculture (2005)  
GIS Databases:  
Acid Sulfate Soil Risk Map, SCP - DOE 04/11/04  
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 at variance to this Principle**

A small portion of the area under application consists of swamp in wet soils of pale, deep sands and peaty sands. The Department of Agriculture (2005) advises that due to the low infiltration rates of these soils, the very low relief and the high average annual rainfall (1000mm) in the area, there is a very high risk of localised flooding associated with the removal of vegetation as proposed.

**Methodology** Department of Agriculture (2005)  
GIS Database:  
Rainfall, Mean Annual - BOM 30/09/01  
Topographic Contours, Statewide - DOLA 12/09/02

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

**Comments**

The area under application is within the gazetted Peel Harvey Catchment. On 4 January 1989 the Minister for Environment approved a management strategy for the Peel Inlet and Harvey Estuary.

This was followed in October of 1991 by conditions that were placed on the Minister for Agriculture, Minister for Transport (read Minister for Planning and Infrastructure) and the Minister for Waterways (read current Minister for Environment). Condition 5 of this ministerial statement imposed a moratorium on land clearing in the gazetted Peel Harvey Catchment until such time as the Minister for Environment was satisfied that land clearing within the catchment was environmentally acceptable.

Strong consideration of the proposed clearings impact on land degradation should be made in relation to the intentions of the condition set at a ministerial level to impose a moratorium on land clearing in the catchment. The retention of deep rooted perennials within the Peel Harvey Catchment and minimising activities likely to lead to nutrient loss within the catchment must be considered at this level to ensure consistency with water

quality improvement objectives currently being finalised under the proposed EPA Water Quality Improvement Plan for the Catchment.

## Methodology

### 4. Assessor's recommendations

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Grazing & Pasture	Mechanical Removal	48	Refuse	<p>The assessable criteria have been addressed, and the proposal has been found to be seriously at variance with Principles (f) and (g). The proposal was also found to be at variance to Principles (a), (e), (h), (i) and (j). In particular:</p> <ul style="list-style-type: none"> <li>- Vegetation on site is in part located within a Conservation Category Wetland, and its associated buffer area.</li> <li>- The clearing of vegetation is likely to lead to appreciable land degradation in the form of wind erosion and eutrophication.</li> <li>- The vegetation on-site is in good to very good condition, as is representative of an under represented vegetation complex.</li> <li>- The vegetation provides an ecological linkage to surrounding conservation areas.</li> </ul> <p>In addition the proposal was also found that it may be at variance with principles (b), (c) and (d)</p> <p>Therefore, the assessing officer recommends this application be refused.</p>

### 5. References

CALM Land clearing proposal advice. Advice to A/Director General, Department of Environment (DoE). Department of Conservation and Land Management, Western Australia. DoE TRIM ref IN 24902.

DAWA Land degradation assessment report. Office of the Commissioner of Soil and Land Conservation, Department of Agriculture Western Australia. DoE TRIM ref IN 24577.

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.

Heddl, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

JANIS Forests Criteria (1997) Nationally agreed criteria for the establishment of a comprehensive, Adequate and Representative reserve System for Forests in Australia. A report by the Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee. Regional Forests Agreement process. Commonwealth of Australia, Canberra.

Keighery, B.J. (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)