



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1681/1

Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: MR Colin Richard Cleaver

### 1.3. Property details

Property: LOT 1 ON DIAGRAM 23199 (House No. 29 Teatree Road CHITTERING 6084)

Local Government Area: Shire Of Chittering

Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.085		Mechanical Removal	Fence Line 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
Mattiske Vegetation Complexes:	The proposal is to clear along the existing boundary fence line to correct the boundary line alignment and construct a new fence. Clearing along the fence line will be up to 2m width (0.085ha).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	Vegetation clearing description based on a site visit conducted by DEC officers on 12 March 2007.
Nooning Complex - Mosaic of low open forest of <i>Casuarina obesa</i> and open scrub of <i>Casuarina obesa</i> , <i>Acacia spp.</i> , <i>Melaleuca spp.</i> and woodland of <i>Eucalyptus rudis</i> , <i>Melaleuca raphiophylla</i> on major valley systems in the perarid zone.	The vegetation under application in the south-western portion comprises individual mature <i>Eucalyptus spp.</i> , but is mainly devoid of vegetation and is completely degraded. The vegetation along the northern fence line is degraded and comprises <i>Eucalyptus spp.</i>		
Bindoon Complex - Woodland of <i>Eucalyptus loxophleba</i> on the slopes, flanked by woodlands of <i>Eucalyptus wandoo</i> , <i>Eucalyptus accedens</i> on the breakaways and upper slopes in the perarid zone.			
Beard Vegetation Associations:			
4 - Medium woodland; marri and wandoo			
973 - Low forest; paperbark ( <i>Melaleuca raphiophylla</i> )			

## 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 under application comprises individual *Eucalyptus rudis* and *Melaleuca raphiophylla* trees and is considered to be degraded to completely degraded, with no understorey present in the majority of the applied area.

Given the degraded to completely degraded condition and the low species diversity of the applied vegetation it is not considered likely to comprise a high level of biodiversity, especially when considering vegetation in the local area including in the nearby Chittering Lakes Nature Reserve.

**Methodology** DEC site visit 12/3/07  
GIS Database: CALM Managed Lands and Waters - CALM 1/07/05

**(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 vegetation under application is degraded to completely degraded with little or no understorey that would provide habitat for ground-dwelling fauna. The understorey vegetation in the adjacent wetland may provide habitat for Quenda, however this is not likely to be impacted by the proposed clearing.

Carnaby's Black Cockatoo has been sighted in the local area and the vegetation under application includes mature *Eucalyptus* trees, however no potential habitat hollows were observed during the site visit.

Given that the vegetation under application is limited to individual *Eucalyptus rudis* and *Melaleuca raphiophylla* trees with no hollows present, it is not considered likely that it comprises significant fauna habitat when compared to vegetation contained in the nearby Chittering Lakes Nature Reserve.

**Methodology** DEC site visit 12/3/07  
GIS Databases:  
SAC Bio datasets 020507

**(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**

Within the local area (10km radius of the applied area) there is one known population of the Declared Rare Flora (DRF) *Thelymitra stellata*, which is located 7.9km to the south. This population is located on a different soil association and vegetation complex as the applied area and therefore this species is not likely to be found on site.

There are also 6 known populations of Priority species in the local area with the closest being *Adenanthos cygnorum subsp. Chamaephyton* located 130m to the northwest of the applied area. This species is known to exist in lateritic soils. As the proposed clearing area is mainly composed of red clay soils, it is unlikely that the application area provide suitable habitat for this species. The soil and other conditions, such as grazing degradation and proximity to wetland areas, is not likely to provide suitable habitat for other priority species within the local area (10km radius).

Given that the DRF species in the local area is found on a different soil types and vegetation complex to the applied area, and given that the vegetation under application is limited to individual *Eucalyptus rudis* and *Melaleuca raphiophylla* trees, the vegetation under application is not considered likely to include, or be necessary for the continued existence of, rare flora.

**Methodology** GIS Databases:  
Declared Rare and Priority Flora List - CALM 01/07/05  
SAC Bio datasets 020507

**(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 occurrences of Threatened Ecological Communities (TEC) within a 10km radius of the area under application, with the closest being Floristic Community Type 20a (*Banksia attenuata* woodland over species rich dense shrubland) located 13km to the southwest.

Given that the vegetation under application is limited to individual *Eucalyptus rudis* and *Melaleuca raphiophylla* trees and is in a degraded to completely degraded condition, it is not considered likely to comprise, or be necessary for the maintenance of, a TEC.

**Methodology** DEC site visit 12/3/07  
GIS Databases:  
Threatened Ecological Communities - CALM 12/4/05  
SAC Bio datasets 020507

**(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 majority of the vegetation under application is defined by Mattiske (1998) as Nooning Complex of which there is 19.9% of pre-European extent remaining and which is considered to be of 'vulnerable' status for biodiversity conservation (Department of Natural Resources and Environment 2002). A portion of the applied vegetation is defined as Bindoon Complex, of which there is 29.6% of pre-European extent remaining (Mattiske 1998) and which is also considered to be vulnerable (Department of Natural Resources and Environment 2002).

The vegetation under application is also classified as Beard vegetation associations 4 and 973, of which there is 23.3% and 32.5% respectively of pre-European extent remaining and which are considered to be of vulnerable and depleted status respectively for biodiversity conservation (Shepherd et al. 2001).

The vegetation under application is in degraded to completely degraded condition and is limited to individual Eucalyptus trees. It is therefore not considered likely that the proposed clearing is at variance to this Principle.

	Pre-European (ha)	Current (ha)	Remaining %	Conservation status***	% in reserves
Northern Jarrah Forest	4,554,335	2,665,480	58.7*	Least concern	
Shire of Chittering	123,502	48,828	39.5*	Depleted	
Beard vegetation associations			**		
4	1,054,316	245,361	23.3	Vulnerable	26.3
973	5003	1626	32.5	Depleted	6.9
Mattiske vegetation complex					
Nooning Complex	41,669	8,289	19.9	Vulnerable	
Bindoon Complex	226,761	78,976	29.6*	Vulnerable	

\* (Shepherd et al. 2001)

\*\* (EPA, 2006)

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

**Methodology** Mattiske (1998)  
Shepherd et al. (2001)  
Department of Natural Resource and Environment (2002)  
EPA (2003)  
GIS Databases:  
Mattiske Vegetation - CALM 24/3/98  
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 at variance to this Principle**

The area under application is located adjacent to a Conservation Category Wetland (CCW) and includes *Eucalyptus rudis* and *Melaleuca raphiophylla* that are contained within the recommended minimum 50m buffer (Water and Rivers Commission 2001). The Brockman River is also located 210m to the southeast.

Given that a portion of the vegetation under application is contained within the buffer to the adjacent Conservation Category Wetland, the proposal is considered to be at variance to this Principle.

Although a portion of the vegetation under application is within the buffer to the CCW, the proposed clearing is limited to individual *Eucalyptus rudis* and *Melaleuca raphiophylla* trees located along the existing fence line and within previously cleared areas. It is therefore not considered likely that the proposed clearing would significantly impact on the wetland as the buffer would not be significantly altered.

**Methodology** Water and Rivers Commission (2001)  
GIS Databases:  
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DOE 15/09/04  
Hydrography, linear (hierarchy) - DOW

**(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 soils in the area are hard neutral red soils and neutral red friable earths, with clay flats in the lower areas (Department of Agriculture 2004). The main land degradation risks considered to be associated with these soil types are water erosion in the higher areas, and waterlogging in the lower areas. The applied area also has a medium to high risk of salinity.

Given that the proposed clearing is 0.085 hectares of individual *Eucalyptus rudis* and *Melaleuca raphiophylla* trees over 410m of fence line, it is not considered likely that it would cause water erosion or salinity. In addition, waterlogging is not likely to occur given that the applied vegetation is located outside the wetland area.

**Methodology** Department of Agriculture (2004)  
GIS Databases:  
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 not likely to be at variance to this Principle**

The area under application is located approximately 90m to the west of Chittering Lakes Nature Reserve and is directly adjacent and within the 50m buffer to a Conservation Category Wetland (CCW) located on the property.

The vegetation under application is limited to individual *Eucalyptus rudis* and *Melaleuca raphiophylla* trees along an existing fence line, and it is not considered likely that the proposed clearing would have an impact on the environmental values of the adjacent CCW. In addition given the distance to the nearby Nature Reserve, it is not considered likely that the proposal would have an impact on its environmental values.

**Methodology** DEC site visit 12/3/07  
GIS Databases:  
CALM Managed Lands and Waters - CALM 1/07/05  
Geomorphic Wetlands (Classification), Swan Coastal Plain - DEC

**(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**

The area under application is located adjacent to a Conservation Category Wetland (CCW). Groundwater salinity in the area is 1000-3000mg/L and there is a medium to high risk of salinity. There is also a risk of water erosion associated with the soil type identified within the applied area.

Given that the proposed clearing is 0.085 hectares of individual *Eucalyptus rudis* and *Melaleuca raphiophylla* trees over 410m of fence line, it is not considered likely that it would cause water erosion or salinity resulting in a deterioration in surface water or ground water.

**Methodology** DEC site visit 12/3/07  
GIS Databases:  
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - 15/09/04  
Groundwater Salinity, Statewide - 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**

The area under application is located adjacent to a Conservation Category Wetland at an elevation of 130-135m. The Brockman River is located approximately 210m to the southeast.

Given that the proposed clearing is limited to individual *Eucalyptus rudis* and *Melaleuca raphiophylla* trees, it is not considered likely that the proposal would have an impact on peak flood height or duration or cause flooding in the adjacent wetland.

**Methodology** DEC site visit 12/3/07  
GIS Databases:  
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC  
Topographic Contours, Statewide - DOLA 12/09/02

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

**Comments**

The lot under application is part of a Native Title Claim however, since it is privately owned Native Title is extinguished under the Native Title Act. Therefore the clearing as proposed should not fall under the future acts process of the Native Title Act 1993.

A search of the Aboriginal Sites of Significance database showed that the area under application is within an area listed on the Interim register for a burial site. A paragraph has been inserted in the cover letter informing

the applicant of their responsibility to contact the Department of Indigenous Affairs.

In a submission the Chittering Valley Land Conservation District Committee (2007) supports only minimal clearing with no removal of mature trees and shrubs as they believe that there is already sufficient clearance for the fence line, and because of the increasing salinity in the Brockman River catchment. These issues have been addressed through discussions with the applicant and in the assessment of the clearing principles.

**Methodology** Chittering Valley Land Conservation District Committee (2007)

GIS Databases:

Aboriginal Sites of Significance - DIA

Native Title Claims - DLI 7/11/05

#### 4. Assessor's comments

Purpose	Method Applied	Applied area (ha)/ trees	Comment
Fence Maintenance	LinMechanical Removal	0.085	<p>The assessable criteria have been addressed, and the proposed clearing is at variance to Principle f.</p> <p>Principle (f): A portion of the vegetation under application is located within the buffer to the Conservation Category Wetland located on the property. The proposed clearing is limited to individual <i>Eucalyptus rudis</i> and <i>Melaleuca raphiophylla</i> trees located along the existing fence line and within previously cleared areas. It is therefore not considered likely that the proposed clearing would impact the wetland as the buffer would not be significantly altered.</p> <p>In order to offset any impact on the wetland a condition will be imposed on the permit requiring the removal of <i>Watsonia spp.</i> from within the wetland.</p>

#### 5. References

Chittering Valley Land Conservation District Committee (2007) Direct interest submission. TRIM ref. DOC18531.

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 (2006) Guidance for the Assessment of Environmental Factors -level of assessment of proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region. Report by the EPA under the Environmental Protection Act 1986. No 10 WA.

Government of Western Australia (2000) Bush Forever Volumes 1 and 2. Western Australian Planning Commission, Perth WA.

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.

Site Visit 12/3/07 Department of Environment and Conservation (DEC), Western Australia. TRIM ref DOC21279.

Water and Rivers Commission (2001) Wetlands Position Statement.

Western Australia Department of Agriculture (2004) Soil-landscape mapping, Western Australia Department of Agriculture, Date accessed 01/05/04.

#### 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)

