



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1689/1  
Permit type: Area Permit

### 1.2. Proponent details

Proponent's name: Shire of Mundaring

### 1.3. Property details

Property: ROAD RESERVE ( GLEN FORREST 6071)  
Local Government Area: Shire Of Mundaring  
Colloquial name: Ryecroft Road Reserve

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.42		Mechanical Removal	Road 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
Mattiske Complex:	The proposal includes the clearing of 0.42ha of native vegetation over a 1.3km length of road reserve for the purpose of widening the road and the construction of a footpath.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	Vegetation clearing description based on site visit conducted by DEC officers on Wednesday 21 February 2007.

D2 - Open forest of *E. marginata* subsp. *marginata*-*Corymbia calophylla* on lateritic uplands in subhumid and semiarid zones.

My2 - Open forest of *E. marginata* subsp. *thalassica*-*Corymbia calophylla* - *E. patens* and woodland of *E. wandoo* with some *E. accedens* on valley slopes to woodland of *E. rudis*-*Melaleuca raphiophylla* on the valley floors in semiarid and arid zones.

Beard Association: Vegetation

2003 - Medium forest; jarrah and marri on laterite with blackbutt (*E. patens*) in valleys, swampy bottomlands with bullich (*E. megacarpa*) and *Agonis flexuosa*.

The vegetation under application was dominated by *Eucalyptus calophylla* and included *Dryandra sessilis*, *Acacia pulchella*, *Xanthorrhoea preissii*, *Banksia grandis*, *Jacksonia sternbergiana*, *Hakea trifurcata* and *Mesomelaena* sp. The vegetation ranged from good to excellent condition, with a very good condition average overall.

## 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 of the applied area is considered as very good condition within a narrow, linear road reserve and is unlikely to contain significant habitat for priority or endangered fauna. It is unlikely to represent an area of higher biodiversity given the adjacent reserve that is managed for conservation purposes.



Methodology DEC site visit 20/02/07

**(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 has areas of dense understorey and is likely to have some habitat potential for ground dwelling fauna such as Quenda. No hollows were observed during the site inspection that could potentially be utilised as habitat, and the trees are not considered to be at hollow-bearing age. Given the vegetation under application is found on a narrow, linear road reserve which is adjacent to two conservation reserves, it is therefore not considered likely that the vegetation under application comprises significant habitat for indigenous fauna.

Methodology DEC site visit 20/2/07

**(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 a 5km radius of the applied area there are 9 known occurrence of Declared Rare Flora (DRF) species, the nearest of which is a DRF species (*Anthocercis gracilis*) located 2.5km to the southeast. There are also 22 known occurrences of Priority species within a 5km radius. Of the DRF species *Acacia aphylla* is located within the same vegetation and soil associations as the majority of the applied area. *Anthocercis gracilis* and *Darwinia apiculata* are located within the same vegetation and soil associations as a 200m length of the applied area between Mofflin Road and Hubert Street.

The Shire of Mundaring's Environmental Officer has inspected the section of Rycroft Road specifically for *Anthocercis gracilis*, *Acacia aphylla* and *Darwinia apiculata* and reports no occurrence of these species along the proposed clearing footprint or immediate vicinity. Therefore it is not considered likely that the vegetation under application includes or is necessary for the continued existence of rare flora.

Methodology Western Australian Herbarium (2003)  
GIS Databases:  
Declared Rare and Priority Flora List 01/07/05

**(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**

There are forty three known occurrences of Threatened Ecological Communities (TEC) within 10km of the local area of the application, the nearest of which is located approximately 5km to the southwest.

Given that the vegetation under application is found on the Darling Scarp and that the TEC are found on the Swan Coastal Plain and are associated with a different land form, it is unlikely that the vegetation under application comprises or is necessary for the maintenance of a TEC.

Methodology 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 not likely to be at variance to this Principle**

The vegetation under application is part of Mattiske vegetation association D2 and My2 (Mattiske Consulting 1998) of which there is 90.5% and 74.2% respectively of the pre-European extent remaining (Shepherd et al. 2001). These vegetation types are therefore considered of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002).

The vegetation under application is part of Beard vegetation association 2003 (Hopkins et al. 2001) of which there is 86% of the pre-European extent remaining (Shepherd et al. 2001). This vegetation type is also considered of 'least concern' for biodiversity conservation (Department of Natural Resources and Environment 2002).

Given that the applied vegetation has more than the recommended minimum of 30% pre-European extent remaining, it is unlikely that the proposed clearing is at variance with this Principle.

	Pre-European (ha)	Current (ha)	Remaining %	Conservation status*** % in reserves
Jarrah Forest	4,544,335	2,665,480	58.7	Least Concern
Local Area (~10km radius)				
Mattiske vegetation complex				



D2	860,918	779,190	90.5	Least Concern
MY2	593,148	440,381	74.2	Least Concern
Beard vegetation associations - 2003	59,261	50,939	86.0	Least Concern
* (Shepherd et al. 2001)				
**(EPA, 2003)				
***(Department of Natural Resources and Environment 2002)				

**Methodology** GIS Databases:  
Pre-European Vegetation - DA 01/01  
Department of Natural Resources and Environment (2002)  
Shepherd et al. (2001)  
Hopkins et al. (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 is not likely to be at variance to this Principle**  
The closest wetland is a Resource Enhancement wetland situated approximately 4km south of the applied area and the Helena River is situated 2.2km southwest.

Given the distance to the nearest wetland or watercourse, and that no wetland dependent vegetation was observed during the site visit, the proposal is not considered likely to impact vegetation associated with a wetland or watercourse.

**Methodology** DEC site visit 20/02/07  
GIS Databases:  
Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain y DEC  
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 soil within the area under application is described as laterite, with gravel and sandy soils which are found in 80% of the eastern portion of the applied area. The remaining soils are acid red earths (Western Australia Department of Agriculture 2004).

The majority of the applied area is associated with a low to nil risk of salinity and has a low to nil risk of acid sulphate soil. The area under application is a narrow, linear road reserve and the clearing as proposed does not involve deep excavation of the soil. It is therefore not considered likely to have a severe impact on salinity or acid sulphate soils in the area.

The main land degradation risk associated with the removal of vegetation on the identified soil type is considered to be water erosion, however given that the proposal is for road widening and the road surface will be sealed, it is not likely to result in appreciable water erosion.

Given that the proposal is for road widening and the road surface will be sealed, and given the low risk of salinity and acid sulphate soils associated with the identified soil type, it is not considered likely that the proposed clearing would result in appreciable land degradation.

**Methodology** GIS Databases:  
Salinity Risk LM 25m - DOLA 00  
Acid Sulphate Soil Risk Map, Swan Coastal Plain - DEC

**(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**  
There are four areas reserved for conservation purposes within a 5km radius of the applied area, including the Mundaring National Park located 1.3km to the south east, John Forest National Park located 1.8km to the north, and Greenmount National Park located 1.6km to the west. A portion of the area under application encroaches into the Glen Forrest Super Block Conservation Park which is vested in the Shire of Mundaring.

The area under application encroaches 2.2m for a distance of 12m into the Glen Forrest Conservation Park and the proposed clearing may impact the environmental values of the reserve through the spread or introduction of dieback or weed species by machinery or the importation of fill required for road construction. There are serious consequences associated with the spread of such diseases and exotic species into an area reserved for conservation, including the potential local extinction of species.



Given that a portion of the area under application is located within Glen Forrest Conservation Park it is considered that the proposed clearing will have direct and indirect impacts on the environmental values of the reserve. The proposal therefore is considered to be at variance to this Principle.

Although a portion of the proposed clearing will occur within the adjacent conservation reserve, the works that the Shire of Mundaring conducts within the Glen Forrest Conservation Park and throughout the Shire is considered to adequately offset the relatively small area of clearing. In addition, conditions will be placed on the permit to ensure vehicles and construction material is weed and dieback free. Conditions have also been imposed requiring weed control within the road reserve and additional cleared areas.

**Methodology** DEC site visit 20/2/07  
GIS Database:  
Calm Managed Lands and Waters - CALM 20/02/07

**(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 does not include any Public Drinking Water Source Areas and the closest watercourse is the Helena River which is located 2.2km southwest of the applied area.

As the majority of the applied vegetation is within existing road reserves, additional clearing is not likely to cause deterioration in the quality of surface or underground water. The proposal is therefore not likely to be at variance to this Principle.

**Methodology** DEC site visit 20/02/07  
GIS Databases:  
Salinity Risk LM 25m DOLA 00  
Hydrography, linear (hierarchy) - 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 approximately 2.2km southwest of the nearest watercourse and given the relatively narrow area of clearing over 1.5km is not considered likely that the removal of vegetation from site as outlined would have an impact on peak flood height or duration.

**Methodology** GIS Database:  
Hydrography, linear (hierarchy) - DOW

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

**Comments**  
The area under application is located with a Native Title Claim area; however it is contained within an existing road reserve that is vested in the Shire of Mundaring. Therefore the clearing as proposed should not fall under the future acts process under the Native Title Act 1993.

The Regional Parks Division has advised that they have no objection to the proposed clearing within Glen Forrest Conservation Reserve.

**Methodology**

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Road construction maintenance	Mechanical Removal	0.42	Grant	The assessable criteria have been addressed, and the clearing as proposed is at variance to Principle (h).  Principle (h): A portion of the area under application encroaches into the Glen Forrest Conservation Park, and will directly and directly impact the environmental values of this reserve. The works that the Shire of Mundaring conducts within the Glen Forrest Conservation Park and throughout the Shire is considered to adequately offset the relatively small area of vegetation proposed to be cleared within the reserve. In order to minimise the risk associated with the introduction and/or spread of dieback into the reserve a condition has be imposed on the permit requiring that vehicles and construction material is weed and dieback free. In addition a condition requiring weed control within the road reserve and additional





cleared areas has also been imposed.

The assessing officer therefore recommends that the permit be granted with conditions relating to dieback prevention, weed management and to minimise clearing.

## 5. References

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 (2003) 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.

Hedde, 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)

